

The development of reading literacy skills in the early years of primary schooling: A case of four Zimbabwean schools

by

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Abstract

Reading literacy is the key to all learning and success in life, especially in this information age. The effects of reading failure include poor performance at school and tertiary level, limited job opportunities and constrained participation in society. This study aimed to investigate the development of reading literacy among Grade 3 and 4 learners in four schools in Gweru. The study was informed by cognitive-linguistic models of reading that acknowledge the role of contextual variables in reading development. A mixed method approach was adopted where reading comprehension (RC), oral reading fluency (ORF), observations and interviews were carried out with the relevant participants from the four schools. Grade 3 and 4 syllabus documents and textbook excerpts were also analysed.

The assessment results showed that learners had challenges with both reading fluency and reading comprehension. A strong relationship between RC and ORF was found across the grades; confirming what other studies have found. On the other hand, the classroom observations and teacher interviews highlighted the shortcomings that exist in the teaching and learning of reading literacy, with little attention given to explicit reading instruction.

The analysis of the syllabus documents showed that reading literacy does not assume a prominent position in the syllabus, and few current evidence-based guidelines are provided as to how reading should be taught, assessed and monitored. With regard to the analysis of textbooks, information texts were generally beyond the learners' grade levels while the narrative texts were below the grade levels. Both scenarios are detrimental to the development of reading literacy skills.

It is therefore recommended that the syllabus be upgraded so that it includes the current issues and trends in reading literacy development. At the same time educators should also continuously receive in-service training and material resources appropriate for reading literacy instruction. Teacher training institutions should consider revamping the reading literacy curriculum and making a number of reading courses compulsory in order to equip the preservice teachers with relevant pedagogic and content knowledge on reading literacy instruction. Given the close relationship between decoding and reading comprehension, pedagogical attention should be given to evidence-based best

practice for the development of both decoding and meaning making skills and strategies.

The curriculum developers should consider working with local and regional reading experts in order to improve on the syllabus content. They should also consider engaging reading experts when creating reading material as well as to subject the texts to rigorous analyses before availing them for use in schools. The government should also channel more resources to the acquisition of reading material in the schools and to develop programmes which aim to advance reading literacy development among primary school learners in order to build a strong foundation during the early stages of learning since this has far reaching effects.

Key words: reading literacy, oral reading fluency, reading comprehension, decoding, foundation phase, classroom practices, information texts, narrative texts, vocabulary profiles

Isifinqo

Ukwenelisa ukubala kuyinsika yakho konke ukufunda lokuphumelela empilweni, ikakhulu esikhathini esiphila kuso lamhlanje lapho ulwazi oluyingxenye eqakathekileyo empilweni kazulu. Impumela zokwehluleka ukubala zigoqela ukungenzi kuhle ezifundweni, ukuncipha kwamathuba okuthola umsebenzi lokwehluleka ukuba lilunga lomphakathi eliphatheka ngokugcweleyo enhlelweni zikazulu. Loluchwayisiso luhlose ukuphenya ngokuthuthuka kwekhono lokubala kubafundi bebanga lesithathu lelesine ezikolo ezine esiqintini seGweru. Uchwayisiso lweyeme kuzindlela zokubala ze-*Cognitive-linguistics* zona ezinanzelela ukuqakatheka kwesimo umntwana aphila phakathi kwaso ekuthuthukiseni ikhono lokubala. Ekuqhubeni loluchwayisiso kusetshenziswe indlela ezingxube zokuqoqa lokuhlaziya ulwazi ezigoqela indatshana zokubala, ukubalela phezulu, ukubukela lemibuzongxoxo okwenziwe lalabo abayingxenye yochwayisiso ezikolo ezine. Kubuye njalo kwasetshenziswa izicaphuno ezithethwe kumasilabhasi ebanga lesithathu lebanga lesine kunye lezingwalo zokubala.

Impumela iveze ukuthi abafundi balobunzima ekubaleni lasekufundeni indaba yokuzwisisa. Kulobudlelwano obuqinileyo obutholakeleyo phakathi kokwenelisa ukuzwisisa indaba lokubala ngokuphumisela kubafundi okugcwalisa lokho okutshiwo ngabanye asebekebachwayisisa. Ngakolunye uhlangothi, ingxoxombuzo lokubukela okwenziwe izifundo kuveze ukuthi kulokusilela kundlela zokufundisa ukubala lokuzwisisa ezisetshenziswayo ezikolo. Ukufundisa ukubala akuphathwa ngokuqakatheka okufaneleyo.

Ukuhlaziywa kwamasilabhasi kuveze ukuthi ukwenelisa ukubala akuqakathekiswa kusilabhasi njalo zikhona izeluleko ezimbalwa ezisekelwa yibufakazi ezitshengisa ukuthi ukufundisa ukubala kumele kwenziwe njani, kuvivinywe kubuye kuhlolwe njani. Ukuhlaziywa kwezingwalo zokubala khona kuveze ukuthi lezongwalo zizezingeni eliphezulu ekwedlula izinga abafundi abakulo kanti izingwalo ezilandisayo zizezingeni elingaphansi kwezinga labafundi. Zombili lezizimo zifaka engozini ukuthuthukiswa kwekhono lokubala kubafundi.

Ngokunjalo-ke, kukhuthazwa ukuba isilabhasi ukhutshulwe izinga ukuze igoqele izindlela ezintsha ezikhona zokufundisa lokuthuthukisa ikhono lokubala. Ngasikhathi sinye, ababalisi kumele baqhubeke besandisa ulwazi abalalo ngokufunda (*in-service*) langempahla yokufundisa ukubala efaneleyo. Amakolitshi aqeqetsha ababalisi kuyadingeka ukuthi akhuphule izifundo zokuthuthukisa ukubala lokwenza ezinye zezifundo zokubala zibe ngezimqoka ezifundwa ngumuntu wonke ukuze kuhlonyiswe izifundiswa ngolwazi lamakhono afaneleyo okufundisa ukubala. Kulandelwa ubudlelwano obukhona phakathi kokuthathisisa lokuzwisisa ukubala, indlela zokufundisa kumele zingxile ekwenzeni okusekelwa yibufakazi ukuthuthukisa mamakhono okubala lokuzwisisa nxa ubala.

Ababumba izifundo kumele banakanisise ngokusebenza ngokubambisana lezinye ingcwethi zokubala elizweni lezivela kwamanye amazwe ukuze kuthuthukiswe okumunyethwe yisilabhasi. Kuyadingeka njalo ukuthi bacabangisise ngokusebenza ndawonye lengcitshi zokubala ekulobeni izingwalo zokubala lokuzihlolisisa ngokuchophelela anduba izingwalo lezo zidluliselwe ezikolo. Uhulumende kumele njalo afake mali enengi ekuthengeni izingwalo zokubala ezikolo lokusungula inhlelo ezihlose ukuthuthukisa amakhono okubala kubafundi abasemabangeni aphantsi ukuze kube lesisekelo esiqinileyo sekhono lokubala kubafundi besesebanciyane.

Samevatting

Leesgeletterdheid is die sleutel tot alle leer en sukses in die lewe, veral in hierdie inligtingsera. Die gevolge van leesonvermoë sluit swak prestasie op skool- en tersiêrevlak, beperkte werksgeleenthede en ingeperkte deelname aan die samelewing in. Hierdie studie het ten doel gehad om die ontwikkeling van leesgeletterdheid onder Graad 3 en 4 leerders in vier skole in Gweru te ondersoek. Die studie is ingelig deur kognitief-linguistiese modelle van lees wat die rol van kontekstuele veranderlikes in leesontwikkeling erken. 'n Gemengde-metode-benadering is gevolg waar leesbegrip, mondelinge leesvlotheid, waarnemings en onderhoude uitgevoer is op die betrokke deelnemers van die vier skole. Graad 3 en 4 sillabusdokumente en handboekuittreksels is ook ontleed.

Die assesseringsresultate het getoon dat leerders uitdagings ondervind het met beide leesvlotheid en leesbegrip. 'n Sterk verwantskap wat gevind is tussen leesbegrip en mondelinge leesvlotheid oor al die grade heen, bevestig wat ander studies bevind het. Aan die ander kant het die klaskamerwaarnemings en onderwyseronderhoude die tekortkominge wat daar bestaan in die onderrig en leer van leesgeletterdheid uitgelig, met min aandag wat gegee word aan eksplisiete leesonderrig.

Die ontleding van die sillabusdokumente het getoon dat leesgeletterdheid nie 'n prominente plek in die sillabus inneem nie en dat daar min hedendaagse bewysgebaseerde riglyne verskaf word oor hoe lees onderrig, geassesseer en gemonitor moet word. Wat betref die ontleding van handboeke was inligtingstekste in die algemeen bokant die leerders se graadvlakke terwyl die verhalende tekste onder die graadvlakke was. Beide scenario's is nadelig vir die ontwikkeling van leesgeletterdheidsvaardighede.

Daar word dus aanbeveel dat die sillabus bygewerk word sodat dit die huidige kwessies en tendense in die ontwikkeling van leesgeletterdheid insluit. Terselfdertyd behoort opvoeders ook voortdurende indiensopleiding en die materiële hulpbronne te ontvang wat geskik is vir die onderrig van leesgeletterdheid. Onderwysersopleidingsinstellings moet dit oorweeg om die leesgeletterdheidskurrikulum op te knap en 'n aantal leeskursusse verpligtend te maak ten einde die voordienonderwysers toe te rus met die nodige pedagogiese en inhoudskennis vir die onderrig van leesgeletterdheid. Gegewe

die noue verband tussen dekodering en leesbegrip moet pedagogiese aandag gegee word aan bewysgebaseerde beste praktyk vir die ontwikkeling van beide dekodering en betekeniskeppende vaardighede en strategieë.

Die kurrikulumontwikkelaars moet dit oorweeg om met plaaslike en streeksleeskundiges saam te werk sodat die sillabusinhoud verbeter kan word. Hulle moet ook oorweeg om leeskundiges te betrek wanneer leesmateriaal geskep word sowel as om die tekste aan streng ontleding te onderwerp voordat dit vir gebruik in skole beskikbaar gestel word. Die regering behoort ook meer hulpbronne te kanaliseer na die verkryging van leesmateriaal in die skole en om programme te ontwikkel wat daarop gerig is om leesgeletterdheidontwikkeling onder laerskoolleerders te bevorder sodat 'n sterk fondasie gelê kan word tydens die vroeë stadiums van leer aangesien dit verreikende gevolge het.

Sleutelwoorde: leesgeletterdheid, mondelinge leesvlotheid, leesbegrip, dekodering, fondasiefase, klaskamerpraktyke, inligtingstekste, verhalende tekste, woordeskatprofiele

DECLARATION

50887521

I, Fungai Mutema, declare that THE DEVELOPMENT OF READING LITERACY SKILLS IN THE EARLY YEARS OF PRIMARY SCHOOLING: A CASE OF FOUR ZIMBABWEAN SCHOOLS is my work and that all the sources used or quoted have been indicated and acknowledged by means of complete references.



SIGNATURE

JAN. 2022

DATE

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List of abbreviations

SVR	Simple view of reading
DTH	Decoding threshold hypothesis
BICS	Basic Interpersonal Communication Skills
CALP	Cognitive Academic Language Proficiency
LoLT	Language of Learning and Teaching
LB	Literacy Boost
SES	Socioeconomic status
SADC	Southern African Development Community
UNESCO	United Nations Education and Scientific Council
UNICEF	United Nations Children’s Fund
ILO	International Labour Organisation
GDP	Gross Domestic Product
ADEA	Association for the Development of Education in Africa
ZILPA	Zimbabwe Indigenous Languages Promotion Association
ARLI	African Languages Research Institute
CUP	Common Underlying Proficiency
ECD	Early Childhood Education
Mo PSE	Ministry of Primary and Secondary Education
CDU	Curriculum Development Unit
PISA	Programme for International Student Assessment
NICHID	National Institute of Child Health and Human Development
EGRA	Early Grade Assessment

ELL	English Language Learners
WCPM	Words Correct Per Minute
NAEP	National Assessment of Educational Progress
MFS	Multidimensional Fluency Scale
RRSG	Rand Reading Study Group
BNC	British National Corpus
COCA	Corpus of Contemporary American English
VLT	Vocabulary Levels Test
DIBELS	Dynamic Indicators of Basic Early Literacy Skills
PAT	Phonological Awareness Test
PIRLS	Progress in International Reading Literacy Study
ESC	English Second Language
SACMEQ	Southern and Eastern Africa Consortium for Monitoring Educational Quality
DBE	Department of Basic Education
AWL	Academic Word List
RE	Readability Analysis

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Chapter 1: Background of the study

1.0 Introduction

This chapter sets out the research problem underlying the study and briefly sketches the background to the problem and the broader context. It also spells out the aims of the research as well as the research questions that were addressed by the study. It further outlines the research methodology adopted in the investigation and also highlights how the thesis is structured.

1.1 Research problem

In order to thrive at school and university students need to have language-based skills essential for effective learning namely, listening, speaking, reading and writing. To ‘thrive’ means to succeed and comes from an Old Norse word meaning ‘to grow, increase’ which in this study relates to how literacy ‘grows and increases.’ This study focuses specifically on the development of reading literacy skills in English second language (ESL) in the early years of schooling among Grade 3 and 4 learners from Gweru district in the Midlands province of Zimbabwe.

Some would refer to all four of these language skills as ‘literacy skills’ (e.g. Lea & Street 2009; Pacific Policy Research Centre 2010; Trilling & Fadel 2009), while the more traditional view regards literacy more narrowly as reading and writing. The term ‘literacy’ is thus quite tricky to pin down and has been defined differently by scholars, policy makers and politicians according to their disciplinary lens (Kern 2000). Pilgrim and Martinez (2013:60) state that “literacy generally refers to reading and writing effectively in a variety of contexts.” Basically, literacy has been understood more narrowly in terms of use of language in its written form such as reading and writing, but scholars concur that the term has evolved over time to refer more broadly nowadays to the use of language in specific contexts, beyond its written form (PISA 2015; Kell & Kell 2014; Leaning 2009). PISA (2015: 9) states that it is understood “as an expanding set of knowledge, skills and strategies that individuals build on throughout life in various contexts through interaction with peers and the wider community.” The implication here is that oral and written language-based skills are not static and that individuals keep on building and adapting their skills to be relevant to the changing

times. For example, we currently talk about digital literacy, financial literacy, multimedia literacy and information literacy among others. The different forms of literacy are not restricted to reading and writing as they entail a number of other language related skills and competencies (e.g. the particular terminology and discourse associated with an activity or field, its verbal norms and conventions, the ability to access/retrieve, collate, interpret, analyse and synthesise information in the field, etc) which an individual should have in order to be termed literate in the various forms of literacy currently in existence.

My study seeks to investigate the development of early reading literacy skills in among Grade 3 and 4 learners in Zimbabwean primary schools so in this study I use the educational lens to refer to literacy more narrowly as involving skills related to written language specifically, viz. reading and writing. My interest in the area was spurred by my experiences as a university lecturer in the Department of Communication Skills, a department meant to equip undergraduate students with academic skills during their first semester in the university. I discovered from my lectures, student assignments and also from informal conversations with colleagues that university students' academic writing exhibit a number of challenges. Some of these include writing which is characterised by texts which lack coherence, are not grammatically correct or cohesive, lack clarity and do not contain well cited references among others. Similar challenges have also been cited by scholars in countries as varied as Zimbabwe, South Africa, Botswana, West Africa, Europe and the United States of America (Millin 2016; McWilliams & Allan 2014; Jongore, Chirimuuta, Bhukuvali & Zuvalinyenga 2013; Afful 2007; Curry 2004). On the whole scholars concur that students are weak in these academic language skills in many parts of the world, especially in countries where the language of learning and teaching (LoLT) is not the students' native language, like the situation in Zimbabwe and most African countries.

My personal observations together with the findings of the above-mentioned scholars stirred in me an interest as to how academic literacy develops, how challenges might persist from school to tertiary level and a desire to find out more about reading literacy development in the early years of learning. In addition, the research in Zimbabwe and those by most scholars referred to above did not explore the causes of students' inadequacies, they just identified the challenges. Given that reading is the backbone of all learning (Delgadova 2015; Geske & Ozola 2008) this study aims to look into how

reading literacy develops during the early years of learning, specifically Grades 3 and 4. Although separated by several years, university learning has its foundation in the early years of schooling thus it makes sense to see how the foundation might provide insight into the roots of the challenges higher up the academic ladder.

The early stages of formal education are critical to the development of academic literacy, learner performance and ultimate achievement (Mudzielwana 2014). Samuelson and Kaga (2008: 3) assert that “the foundations of brain architecture and subsequent lifelong developmental potential are laid down in a child’s early years through a process that is exquisitely sensitive to external influence.” The early years of schooling are critical in a child’s literacy development and students who are not exposed to conditions that facilitate effective learning at this stage risk falling further and further behind in later grades and even in life in general. As Konza (2011) points out, our early years frame the trajectory of our lives in many ways, and this is true of literacy development. Grades 1-3 should lay the foundation for the development of accurate and fluent reading and solid vocabulary development, which form the basis for subsequent academic literacy development (this construct will be further discussed in §1.2 below). As already mentioned, the development of academic literacy is cumulative, which means a shaky foundation will result in a struggling learner, since initially struggling learners continue to struggle right through to the highest level if appropriate interventions are not affected, while the opposite happens for those who are fortunate to have a head start (Gibbons 2009).

Gibbons (2009) posits that as students progress through school there are a number of transitions they pass through and Grade 3-4, my focus area of study, is one of the transitions which is important for academic literacy development. As the literacy demands on learners increase, a strong base at the elementary stages of learning is essential for effective learning later, including university learning (Hatzichristou & Rosenfield 2017). This study looks at the development of early reading skills in the context of Second language (L2)¹ speakers or learners of English in Zimbabwe, an African context. As will be argued below, the context is quite different from the Western context in many respects with regard to educational policy, the learners, their

¹ L2 may not factually be the second language, but if it is used in school it may become a dominant additional language as is the case in most African contexts.

home backgrounds, teachers, available resources and school infrastructure, inter alia. The study closely examines what happens in Grades 3 and 4, focusing on the development of reading. The findings will contribute to educational debates on reading development and academic literacy, and through the dissemination of research findings (including to the Ministry of Primary and Secondary Education), early pedagogic practices might also be improved. Therefore, knowing what happens at this lower level (Grades 3/4) can help to explain and understand the problems higher up the education ladder.

1.2 Literacy, reading literacy and academic literacy

In this section I focus on approaches which help us better understand the concept of *literacy*. I also look more closely at *reading literacy* and *academic literacy* as these three constructs are interrelated.

Literacy has been examined from different perspectives, with the cognitive and social views of enquiry being the most dominant ones. The cognitive approach underscores the mental processes that take place during the process of reading and writing, i.e. how the lower level processes (decoding the written symbols and related aspects such as phonemic awareness, letter-sound knowledge, word recognition, etc) and higher-level processes (i.e. comprehension processes for constructing meaning) interact and engage and how they develop over time (Hejsek, Koecky, Kusa, Polak & Marevasova 2015; Davison 2010; Grabe 2009). The cognitivists believe that literacy is largely taught and learnt and for a long time the cognitive approach dominated the field of literacy, thereby influencing educational policy and methodology in most countries (Davison 2010). More on the lower and higher-level cognitive processes will be discussed in Chapter 2.

On the other hand, the social view in some respects challenges the cognitive view, stressing that reading and writing always take place in some specific socio-cultural context (Street 2017). This view does not focus so much on individual acquisition or use of skills as on the ways people use written language in their everyday lives, and the literacy interactions in the home and community (Boakye 2015). The approach stresses that it is these interactions infused by underlying attitudes and values which help influence the learner's ability to read proficiently. This perspective focuses on the role of the family and the community as well as the socio-cultural diversity that is at play in facilitating literacy development. Dabrowska (2019) asserts that people do not only

need lexico-syntactic and graphophonic knowledge to read but also require knowledge of beliefs, values, uses, purposes and the structural aspects of a particular genre in order to read and write meaningfully. The above statement points to the importance of both approaches to literacy development, showing that the two (cognitive and socio-cultural perspectives) are not independent of each other.

The two approaches should not be viewed as oppositional but rather as complimentary. Since both perspectives provide important understandings of the development of literacy in general and reading literacy in particular, my study adopts insights from both of them. From the cognitive approach I draw on the cognitive-linguistic processes at play in early reading development and on their interrelationships, as accounted for in the Simple view of reading (SVR) and the Decoding Threshold hypothesis (DTH) (to be explained more fully in Chapter 2) to guide my investigation on the development of early reading skills, while the role of the home and school environment in the development of reading literacy draws from the socio-cultural view of literacy. Though research has shown that the home and school experiences as well as the cognitive aspect play significant roles in reading literacy development (Snow & Mathews 2016; Boakye 2015; Ngorosho 2011, Snow 1991), this study does not look at the contribution of the home but rather focuses more on the schooling context.

Embedded within the general concept of literacy is reading literacy as a specific and more specialised concept which focuses on reading and comprehending language in its *written* form, the major focus in this study. Braun (2007) states that reading literacy is more than knowing how to pronounce (decode) the words and understand their meaning. Delgadova (2015:50) asserts that “reading literacy refers to being able to comprehend the contents properly, find both explicit and implicit meanings, analyse the content and the information obtained, and being able to interpret the content properly and pass it on.” Thus, reading literacy is complex, it entails skills, competencies, knowledge and interpretation of the information in order to be able to use it effectively. However, these reading skills are not the ordinary, everyday literacy skills we use in our daily, interactional lives (as shall be discussed shortly) but rather what some scholars refer to as specific academic literacy skills and practices; new ways of talking/reading/writing about knowledge, new ways of knowing, understanding, interpreting and organising knowledge, via spoken but more specifically written modes, which are typical of academic contexts and tend to be discipline specific (Lea & Street

2009). This is what is referred to as academic literacy by some scholars, and this goes hand in hand with reading literacy (Neal 2015; Johnson 2009).

Having briefly discussed reading literacy more generally, it is important to look more closely at what reading is. Scholars who work within the cognitive framework emphasise that reading is a complex phenomenon comprising a number of cognitive-linguistic processes that draw on different knowledge bases, involving decoding, vocabulary, syntax, metacognition, background knowledge, and so on (e.g. Castles, Rastle & Nation 2018; Fuchs, Fuchs, Hosp & Jernkins 2000; Logan 1997). All the mentioned subcomponents work together to construct meaning from print. Koda (2007: 1) points out that “The ultimate goal of reading is to construct text meaning based on visually encoded information.” All of the above views emphasise the different aspects because reading is a complex phenomenon. In this study, all of the above aspects will be described because they are essential components of reading literacy, but the main emphasis will be on oral reading fluency (as an index of advanced decoding skill) and reading comprehension and their relationship.

Academic literacy refers to “ways of thinking, reading, speaking, writing dominant in the academic setting, involving ways of receiving knowledge, managing knowledge and creating knowledge for the benefit of a field of study” (Neely 2005:8). It includes a wide spectrum of practices typical of the schooling context and within it is embedded academic language through which texts are written and read for learning purposes. When I state that my study is on reading literacy development, I am referring to reading which happens using texts presented in the type of language which is typical of learning contexts. Academic language is the formal language of school in both written and oral form. Gottlieb and Ernst-Slavit (2014) state that academic language refers to the language of textbooks, classrooms and tests, while Zwiers (2008: 20) describes it “is the set of words, grammar and organisational strategies used to describe complex ideas, higher order thinking processes, and abstract concepts.” Basically, this refers to the language used in schooling to execute the business of learning, it is presented in textbooks, it should be used during the teaching and learning process and learners should use it when they write their academic pieces of work (though the last two scenarios are problematic). This is a more formal and decontextualised type of language which is different from ‘ordinary’ spoken language which is less formal and far more embedded within an immediate interactional context. Academic language takes longer

to acquire, about 5-7 years, while ordinary language takes a shorter period of about 2-3 years (Cummins 2000; Meyers 1993).

The decontextualised feature of academic language refers to the linguistic content and context of the text, which plays a critical role in supporting the meaning of the text in the learning environment, beyond the specific time and context in which it was written (for example, a text written over fifty years ago can still be understood when read today). In other words, it refers to the use of language without conversational support such as the immediate communicative situation, gestures and intonation (Galloway 2016). Ordinary language is context embedded; as people converse, the environment they are in (e.g. a coffee shop) and the people involved in the conversation (e.g. two friends) help to convey the message in a comprehensible manner (e.g. through the use of verbal and nonverbal cues, *I bumped into him here*, where *him* refers to a male about whom the friends have been conversing and *here* refers to the coffee shop). In sum, academic language is a school register which is characterised by specific features (discourse features, grammatical constructions and vocabulary) typical of learning contexts.

In a bid to more fully explain the concept of academic language Cummins (1979) distinguishes between Basic Interpersonal Skills (BICS) and Cognitive Academic Language Proficiency (CALP) to elaborate on the development of language use among learners. The two concepts apply equally to native speakers (L1) and L2 speakers of a LoLT. BICS is the first step in language learning, mainly concerned with achieving communicative competence in oral language. BICS is typically utilised in informal social settings during conversations and is the first to be acquired as children develop language proficiency (Rhodes, Ochoa & Ortiz 2005). The kind of vocabulary typically associated with BICS includes commonly used, high frequency words that relate to conversational language. CALP is the second aspect of language proficiency which develops in response to formal education. Cummins (2000: 66) defines CALP as “... the degree to which an individual has access to expertise in understanding and using the specific kind of language that is employed in educational contexts and is required to complete academic tasks.” It entails competence in skills like reading, writing, the development of critical thinking skills within different disciplines and the ability to become an autonomous student who takes charge of his/her learning (Millin (2016). An autonomous student is one who charts his/her own pathway to success (Brown 2007).

Academic literacy enables one to comprehend subject-specific texts, recognise and understand discourse markers, summarise and synthesise information, identify and follow arguments, draw inferences and conclusions, adhere to discipline specific academic or scientific conventions and engage in critical reading among others (Van Dyk & Weideman 2004).

Academic language includes vocabulary from the mid and low frequency ranges and longer sentences with syntactic constructions not typically used in everyday language, such as greater use of passives, nominalisation and complex embedded or subordinate clauses. Students are introduced to this language right from primary school to tertiary level – it seldom occurs in everyday oral discourse but it occurs extensively in written language. This is the language which students struggle with in schools and tertiary institutions and some might not ever acquire it successfully, including even L1 speakers of the LoLT. This is the language in which textbooks are written and which are the main source of information in learning contexts. If learners do not read regularly then they are unlikely to encounter and acquire academic language. This study thus seeks to explore the development of reading skills during the early years of schooling in relation to this specialised language.

1.2.1 The cumulative nature of academic literacy development

At this point it is instructive to briefly consider how academic language develops. It starts developing during the early years of children's development, though this may depend on the children's socioeconomic background. Academic language can start developing during the preschool years and early foundational grades (e.g. Grades 1-3), if the conditions are conducive for it to develop, for example through exposure to storybook reading (Kim et al. 2019; Friedberg, Mitchell and Brooke 2017). Friedberg et al. (2017) go on to state that in Grade 4 the development of academic language becomes more critical due to the widespread dependence of learners on subject specific textbooks for learning, the introduction of more sophisticated texts that deal with abstract topics beyond the everyday world of the children, and tasks becoming more cognitively demanding. The complexity of academic language continues as one moves to higher educational levels, such that by Grade 9 (Form 2) students should know a large vocabulary of academic words used across disciplines. Missing out on earlier skills can have consequences for subsequent development. Johnson (2009:55) argues

that “increasing text demand begins in the elementary school, ramps up in middle school, and then really takes off as students enter high school.” It is during the elementary stage that learners learn to read (the ‘learning to read’ phase), so that by the time they advance to middle school they can confidently use reading as a tool to learn (the ‘reading to learn’ phase – which lasts for the rest of one’s life). As the learner advances through each grade level, the texts become more challenging; the range of vocabulary increases and the subject matter narrows its focus which results in greater depth of understanding (Johnson 2009). Mudzielwana (2014) asserts that the foundation stage is critical in academic literacy development because it acts as the bedrock which provides basic reading skills required for smooth progression into subsequent grades. The basic reading skills entail the ability to decode accurately and with sufficient speed which enables comprehension (Rasinski & Nageldinger 2012). If children read too slowly, making mistakes along the way, comprehension is compromised. Fluency is critical for comprehension, especially when texts become more difficult (Pikulski & Chard 2005). Espinoza (2010) states that by end of Grade 3 learners should have developed solid reading skills which are essential to all future learning, including even university learning. From Grade 4 learners are expected to read and understand nonfiction or expository texts in subjects such as Science, Mathematics and Social Studies to mention but a few. Learners who fail to meet the expectations and requirements will continue to fall behind even up to university level, unless effective intervention strategies are implemented. Zwiers (2008:1) points out that “millions of bright and capable students around the world struggle in school and even give up because they lack the abilities to use language in ways that are expected in academic settings.” This shows how critical academic language is in the success and upward movement of students. The construct of academic literacy and related aspects will be discussed in greater detail in Chapter 2.

Though university learning is more focussed and discipline oriented than primary and secondary education, university learning is a progression and continuation of what started in the primary school. The disciplines that students enrol in have specialised vocabulary and register (Fujimoto, Turner, Kathyapornpong & Zutshi 2010) but this rests on a more general vocabulary knowledge built up during the school years, as well as a core of academic vocabulary used across content subjects. Related to this, as already pointed out, are vocabulary frequency levels which span high, mid and low

frequency ranges. The high word frequency level is made up of the most common word families typical of spoken language, children's readers and novels while mid frequency level vocabulary comprises moderately frequent words that occur in fiction and non-fiction text but more seldom in everyday spoken conversations. It is at this level that academic words also occur (i.e. words typical of the academic register and used across academic disciplines), and literate adult native speakers of English know most of these words (as do ESL students who read a lot). The low frequency words are a narrower range comprising less commonly used words (e.g. *erstwhile*, *egregious*, *misanthropic*) and technical vocabulary unique to particular disciplines, for example the specialised vocabulary in the fields of medicine, astronomy, oceanography, and so on (Nation 2001). It is highly unlikely that individuals will know low level vocabulary but be ignorant of the high or mid frequency levels because the vocabulary levels are developmental and cumulative, just like progressing from the primary level to secondary and university level. As one progresses with school one gets increasingly acquainted with the mid and low vocabulary frequency levels through texts, and via explicit teaching and incidental learning. University students should have a certain level of literacy which allows them to demonstrate their understanding of texts, and present their perspectives and opinions adequately at a level higher than the primary and secondary levels (Fujimoto et al. 2010). The kind of learning at the elementary stage informs the calibre of students higher up the academic ladder. This cumulative nature of reading and academic literacy is what motivated my investigation into the elementary stages of reading in my study. Samuelson and Kaga (2008) argue that learners who are not exposed to conditions that facilitate effective academic literacy development are at risk of falling behind in later grades. Grades 3 and 4 should lay the foundation for the development of accurate and fluent reading and solid vocabulary development, both of which form the basis for subsequent academic literacy development. However, if learners do not get adequate grounding in the early years of schooling and throughout high school then gaps in vocabulary, reading fluency, comprehension ability and academic literacy development in general will be shown at this highest level of learning, the university (Olivier & Olivier 2013).

Although there are widespread sentiments among higher education lecturers in Zimbabwe about students' academic literacy woes, not much local research has been conducted in the domain. Furthermore, little research has been carried out in Zimbabwe

on reading literacy in primary schools. One of the few studies is that of Brown (2014), who worked with one district in Hurungwe on a programme called Literacy Boost (LB), involving 6 intervention and 4 control schools. The programme was meant to improve early grade reading skills in English and Shona (the participants' mother tongue), focusing on concepts about print, letter identification, vocabulary and fluency of Grade 3 learners (n = 91 in intervention and 52 in control schools). Although available research in the Zimbabwean context will be dealt with in greater detail in Chapter 2, I draw attention to the findings here as they relate to early grade literacy in line with my area of interest. My study also looks at some of the reading skills investigated by Brown (2014), so this study helps contextualise my own research. Table 1.1 summarises Brown's (2014) findings.

Table 1.1: Grade 3 Literacy Boost Programme Results

Avg. Baseline, End of Year 1 and Gains in Literacy Skills by Group

Reading Skill	Group	Baseline score	Endline score	Avg. Gain ³	Sig. diff. between gains	
Concepts about print (of 11)	LB	7.9	8.9	1.0	*	
	Comparison	8.1	8.2	0.1		
Letter identification (of 52)	LB	39	43	4	*	
	Comparison	37	37	0		
Vocabulary (of 20)	Shona	LB	12.2	12.7	0.5	
		Comparison	10.9	10.9	0	
	English	LB	10.8	12.3	1.6	
		Comparison	8.7	8.9	0.2	
Fluency (words per minute)	Shona	LB	15	22	7	**
		Comparison	13.9	14.5	0.6	
	English	LB	14	24	10	
		Comparison	11.8	14.1	2.3	
Reading Accuracy (%)	Shona	LB	67%	69%	2%	
		Comparison	54%	54%	0	
	English	LB	51%	59%	8%	
		Comparison	46%	46%	0	
Reading Comprehension (of 5)	Shona	LB	2.4	3.1	0.7	
		Comparison	2.2	2.8	0.6	
	English	LB	0.6	0.8	0.2	
		Comparison	0.7	0.7	0	

*** p<0.001, ** p<0.01, * p<0.05

The baseline data were collected at the beginning of the year while the endline data was collected in November after the participants had received treatment. As can be seen from the table, the treatment group (LB) mostly showed significant improvements in concepts about print, letter identification, individual word reading and fluency, compared to the control (or comparison) group. Despite these improvements, the results

also show that both intervention and control groups generally struggled with reading accuracy in Shona and reading comprehension in both Shona and English. For example, by the end of Grade 1 learners should know at least 40 letters correct per minute as a basis for word recognition (Kaminski and Good III 1996²) yet the learners in the intervention only reached this benchmark two years later at the end of Grade 3. The slow pace of improvement in comprehension is also not unusual because there is a lot of research across developing countries which show that interventions improve decoding skills more easily than comprehension skills in either L1 or L2 (Liswaniso 2021; Piper, Schroeder & Trudell 2016; Soriano, Miranda, Soriano, Nievas & Felix 2011). Despite significant increases in fluency in both Shona and English in the intervention groups, reading accuracy remained low and fluency was generally poor in Brown's (2014) study. A Grade 3 learner who reads at 22 and 24 WCPM in Shona and English respectively is a struggling reader. For example, by the end of Grade 1, L1 English readers at the 50th percentile can average 53 WCPM (Hasbrouck & Tindall 2006), while Jimerson, Hong, Stage & Gerber (2013) found an average difference of around 25wcpm between HL English and ESL readers at each grade level from Grades 1-4. In other words, averaging 24WCPM in ESL should be achieved in Grade 1, not Grade 3. Though Brown's (2014) study was a small scale one, it sheds light on the sort of challenges that primary school learners might have in Zimbabwe. There is some similarity to what Piper et al. (2016) observed about the Kenyan learners whom they assessed in their study who struggled with English reading comprehension. The study showed that reading in Kenyan home languages is also poor which means reading should be taken seriously in any language. The poor development of foundational reading skills is a common observation among most studies. Kim et al. (2019) state that many children, especially those in low- and medium-income countries, do not develop foundational reading skills even after years of instruction, and the poor development of foundational skills is reflected in Brown's study where at the end of Grade 3 learners could read only 22 WCPM in their L1 and 24 WCPM in the LoLT. The low levels of literacy at the foundation stage could indicate that it is more a pedagogic issue than a language issue since learners have reading challenges in both the L1 and L2. While research shows that good L1 literacy boosts L2 literacy, the emphasis is on *good* L1

² See Ardington et al. (2020) for a similar letter sound benchmark derived independently from a data set of about 12,000 readers in the Nguni languages. Learners who had not reached this benchmark had very poor word reading and oral reading fluency skills.

literacy and not simply L1 literacy. Most African countries that have L1 literacy in the early years of schooling show low L1 literacy, which is not enough to boost L2 literacy (Nel 2018; Zimmerman 2017; Piper et al. 2016; Pretorius 2015).

Brown's study records an effect on the treatment group in both languages: of the six skills assessed in Shona and English, significant gains were made in two of the six skills (fluency and accuracy) in Shona, and three of the six skills in English (vocabulary, fluency and accuracy). The findings from Brown (2014) also showed a need for training among the teachers so that they become more effective in the classroom, because the teachers in the treatment group did improve their classroom practices. In Brown's (2014) study, learners who also came from higher socioeconomic (SE) home environments did better compared to their high SE counterparts whose teachers had no training. If the performance of learners in the control group reflects what is happening in most Zimbabwean schools then there is a serious challenge as far as early reading is concerned. Although Brown's (2014) study was a snapshot of the situation in Zimbabwe, snapshots can hold up a mirror to the larger schooling system. Similarly, my study will hopefully also contribute to a better understanding of early reading literacy development in the country.

1.2.2 Factors which affect reading development

This section briefly looks at factors which contribute towards the development of reading. These include such factors as the school (availability of resources, teachers, the learning environment etc) and the home environment and family SE factors. All these factors can positively or negatively influence reading literacy development. A more detailed account of the factors will be presented in Chapter 2.

Reading is a learned skill (Geske & Ozola 2008) and as such the school plays a critical role in reading development. Most children in developing countries physically interact with print material only when they get to school. If a school does not have the necessary reading material and teachers to offer proper reading instruction then learners would be negatively affected because reading thrives where there is exposure to texts, explicit instruction and lots of practice (Julius 2014; Tse & Xiao 2014; Waldfogel 2012).

The school ethos also contributes to reading literacy development. School ethos refers to the culture or tone of the school (Bragg & Manchester 2011; Deal & Peterson 2009).

If a school prides itself on a high literacy standard it will work towards upholding the standard which means providing learning material, promoting a culture of reading and generating a conducive learning environment which is safe for learners and teachers motivated to do their work (Teddlie & Reynolds 2000). Such an environment inspires learners to work harder.

The home environment is another factor which affects reading development either positively or negatively, especially during the preschool and primary school years. The home is the child's immediate social environment and this is where some basic literacy skills can potentially develop (Ngorosho 2011; Johnson 2009; Hart & Risley 2003). The home environment contains social and cultural knowledge and skills that are important for children's growth and development in literacy skills. A home environment which is rich in relevant and quality literacy resources such as storybooks, picture books, computers, musical instruments, availability of drawing material and pencils, crayons, paper and paint and exposure to rich language in the home provide a robust foundation for language and reading development. A conducive home environment exposes children to adults using literate resources which helps children to value literate activities and resources. If children are read storybooks to at home their vocabulary grows and abilities like retelling stories are also developed which helps them when they get to school and start on formal learning. In contrast, a disadvantaged home environment where children are not exposed to rich language and literacy resources has adverse effects on the development of reading among children.

1.3 The components of reading

In the previous section (§1.2.2) I explored the different views of reading literacy and established that the socio-cultural and cognitive approaches to reading literacy are complimentary, with both approaches acknowledged in this study. I also highlighted the connection between reading literacy and academic literacy in the learning process. In this section I briefly outline the components of reading (e.g. decoding, comprehension and their sub skills) since reading is the mainstay of my study. It is these components and their sub skills which work in unison to enable readers to construct meaning from printed texts. Although these component skills will be dealt with more fully in Chapter 2, they are described here to help contextualise the research aims and questions of the study.

It has already been established that reading is essentially about meaning and comprehension, but to achieve comprehension in the written mode, the learner has to know the code of written language. Reading skills associated with the code are referred to as decoding skills. Decoding is a key component of reading and learners should have this skill for effective reading comprehension to take place. Espinoza (2010) describes decoding as the ability to understand that a printed word represents the spoken word, and that this printed word is made up of a sequence of phonemes. It is a process whereby a reader converts letters (graphemes) to sounds (phonemes) and thereby recognises words and sentences, essentially converting the written code to language (Jeon & Yamashita 2014). Therefore, decoding could be simply understood as figuring out how to read each word in a text, according to the sound and orthographic system of a language, and constructing meaning from the sequence of all the words in the text. At the beginning of this process learners will laboriously pronounce almost each grapheme as they try to read, but with practice and exposure to the activity accuracy improves and the conversion process speeds up such that fluency is attained.

Reading comprehension is another key component of reading; it relies on decoding but extends far beyond it (Espinoza 2010). Lerkkanen (2003:14) defines reading comprehension as “... an interactive process between a reader and the text where the reader actively acquires information from the text using various cognitive strategies and comprehension strategies.” This suggests that reading comprehension is complex and multifaceted. It occurs at different levels and the most basic level is called literal comprehension which mainly has to do with understanding explicitly stated information in a text – what Kintsch and van Dijk (1978) refer to as the ‘text base’. Interpreting a text at a deeper level requires going beyond the text base and building a ‘situation model’ which involves the use of background knowledge, inferencing, integrative and evaluative skills (Kintsch & van Dijk 1978). All this makes reading comprehension a complex process and more will be expounded in Chapter 2.

In addition, fluency is also an important aspect of reading which helps to connect decoding and comprehension. Rasinski and Nageldinger (2012) state that reading fluency is the bridge between decoding and comprehension. The Language and Reading Consortium (2015: 153) defines fluency as “... a level of accuracy and rate where decoding is relatively effortless, where oral reading is smooth and accurate with correct prosody; and where attention can be allocated to comprehension.” Automaticity and

prosody are essential components of fluency. The reader should quickly and effortlessly recognise and identify words in and out of context with appropriate prosody. If a learner struggles to recognise words and reads without expression it affects comprehension. Although there are some readers (particularly L2 readers) who may be able to decode texts quite fluently yet not really understand what they read (called 'barking at print'), scholars generally agree that there is a strong relationship between reading fluency and reading comprehension. This construct will also be discussed in greater detail in Chapter 2.

Furthermore, reading comprehension is also supported by knowledge of words in a given text. Vocabulary knowledge is multidimensional: there is receptive and productive vocabulary, and vocabulary can also be measured in terms of breadth (or size) and depth. All these aspects of vocabulary are essential for text comprehension. Productive vocabulary refers to the words that an individual knows and is able to use spontaneously in oral and written contexts (Masor & Baharudin 2016; Kamil & Hiebert 2005). Receptive vocabulary is what individuals can recognise and understand in both written and oral contexts but do not spontaneously use as part of their active repertoire. Receptive vocabulary knowledge is larger than productive vocabulary because individuals have words that they have previously encountered and can understand without necessarily using such words when they write or speak. Vocabulary breadth refers to the size (how many words known, more or less) and depth refers to the quality of word knowledge that an individual possesses (how deeply words and their associated meanings are known) (Kumar & Dhanavel 2018; Dabbagh & Enayat 2017;). All these forms of vocabulary knowledge are essential to reading development.

The afore mentioned components of reading together with their subcomponents will be explored in greater detail in Chapter 2 where the conceptual and theoretical frameworks which inform this study are explored in greater depth.

1.4 Learning and literacy contexts in Africa

Related to reading literacy development are the broader language, literacy and learning contexts of pupils. This section provides a general overview of the learning and literacy contexts in Africa before I specifically focus on Zimbabwe from which my study is drawn. This helps to situate Zimbabwe within the larger African context, which may also help us better understand the issues under study.

Learning in African primary schools is different in many respects from what prevails in most developed countries. However, this is not unique to Africa, as there are common parallels between Africa and other middle- and low-income countries in South America, India, south-east Asia and the Middle East (Kim et al. 2019; World Development Report 2018; UNESCO 2017). These characteristic features include inter alia multilingualism, lack of adequate resources especially print resources, low SE factors, widespread poverty, high teacher and learner absenteeism, and inadequate access to quality education. While most children worldwide can now attend school in the early years, poor achievement remains a problem, so the challenge now is access to quality education.

Firstly, multilingualism is the norm in developing countries; most children speak more than one language, schools accommodate learners from different language backgrounds, and education systems cater for some forms of bilingualism or multilingualism. The 21st century is a highly literate enterprise and bilingualism and multilingualism is a bid to facilitate the acquisition of knowledge in both L1 and L2 languages. Knowledge is primarily disseminated, accessed and assessed via written language, so textbooks play a central role in the acquisition of knowledge. Zimbabwe has about 16 local languages and for a long-time only Ndebele and Shona were taught in schools as they had a written tradition. Of the 16 languages only three (English, Shona and Ndebele) enjoy high status and have written literature for formal learning, which is different from the other languages. Although ChiChangana, Tonga and Kalanga have been included in the primary school curriculum since 2002, there is still inadequate written literature in these languages, while the rest of the indigenous languages are used orally by the communities and currently no written material exists in those languages. South Africa has 11 official languages (of which 9 are African languages) which are also used in schools while Angola has over 30 languages but only about six are actively used in schools (UNICEF 2016; Augusto 2012). These are just a few examples of the language situation in most sub Saharan African countries. Such a situation makes it difficult for learning to be conducted in home languages that do not yet have a standardised orthography and written resources (Ferguson 2013; Espinoza 2010; Cummins 2000). The development of learning material and the training of specialist teachers in the diverse languages is also a serious challenge for the authorities. The responsible authorities see all this as very costly. As a result, these factors

compromise the teaching and learning of the indigenous languages as well as the children's academic literacy development in such languages.

Most African governments prefer the use of former colonial languages as the LoLT because these have been standardised, and have a large body of published resources, which is not the case with most learners' native languages (Kim, Boyle, Zuilkowski & Nakamura 2016). From a political perspective a common language like English in the case of Zimbabwe, even if it is a former colonial language, is preferred because it helps to foster unity. This results in different kinds of language in education policies and practices. For example, in Zimbabwe learners use English at school while they speak Shona and Ndebele and their related dialects at home. South African pupils learn in their L1 during the first three years of their schooling and have English as a First Additional language as a subject in Grades 1-3. Learners switch to either English or Afrikaans in Grade 4 (Spaull 2013; Pretorius & Mampuru 2007). In Angola and Mozambique learners use Portuguese as their LoLT from the beginning of schooling. In Madagascar French is the official language and LoLT while Malagasy and its varieties is the national language spoken by the majority of people, especially in rural communities. Malagasy is the language of instruction in Grade 1 and 2 while from Grade 3 it is taught as a subject and also used for some social subjects like Hygiene, History of Madagascar and aesthetic education among others. French is used for Science subjects (Maths, Geography, and Science) from Grade 3 to university level (Dahl 2011; Gouleta 2006). The countries mentioned above are within the Southern African Development Community (SADC) region to which Zimbabwe belongs. They portray a common pattern in as far as the education language policies of the SADC member states and other African countries are concerned. All the countries are characterised by linguistic diversity coupled with a dominant former colonial language, which Kamwendo (2009) refers to as exoglossic languages. As a result, the region has been linguistically categorised into Lusophone (Portuguese-speaking), Francophone (French-speaking) and Anglophone (English-speaking) areas. These three languages are the official languages in almost all these countries and they also serve as media of instruction, even though they are not the home languages of the majority of the people they serve. In some countries the indigenous languages are used as media of instruction in the lower levels of primary education (e.g. in South Africa, Botswana, Malawi) while the colonial languages dominate the upper levels of education up to tertiary level.

However, parents from wealthier families opt for straight-to-English/Portuguese/French schools from the time their children first enrol for formal learning and this is a common practice in most African countries. These schools tend to be private schools, which means that they tend to be better resourced, they offer better quality teaching and the classes are smaller compared to state schools. In developing countries high English/French/Portuguese proficiency is associated with economic and social advantages so people prefer the use of former colonial languages as media of instruction. However, there are studies which show that the use of L2 as media of instruction results in lower student achievement (Piper et al. 2016; PASEC 2015).

The acquisition of independence by most African countries resulted in increased enrolments in primary schools, while the UNESCO initiatives in the 1990s for universal access to education accelerated this process and overstretched the available resources in most African countries, Zimbabwe included (World Bank 2009). The United Nations Children's Educational Fund (UNICEF) in collaboration with the World Bank are working together in promoting universal primary education and are overseeing a programme on the abolition of fees in African primary schools. The programme has resulted in massive enrolments in most African primary schools (Uganda, Malawi, South Africa, Zimbabwe, etc) and this has added yet another strain on already overstretched educational resources because the resources do not match the rising school enrolments. The International Labour Organisation (ILO) (2016) provides information from teachers in some African countries bemoaning the large enrolments, saying it has led to overcrowded classrooms, high teacher-pupil ratio and pupil-book ratio, hampering effective learning, which in turn contributes to high dropout rates in primary schools. The large classes force teachers to use the lecture method because highly interactive lessons are not feasible. Clearly, improving access to education quantitatively, alone, does not guarantee quality education. All these challenges affect literacy development during the early years of learning. Van Fleet (2012) opines that about 37 million of the children who enrol in school will learn so little that they would not be much better off than those who failed to go to school.

The language situation is exacerbated by the fact that there are few resources (e.g. storybooks and textbooks) in sub-Saharan local languages which are supposed to be used as media of instruction, especially during the early years of children's learning

when literacy skills are developing. Near universal access to education in many African countries has also stretched the few resources to their limits. If there are limited or no resources, the acquisition of early literacy skills becomes compromised. As Pretorius and Mampuru (2007) point out, very few books are written in the L1s and publishers are reluctant to print books in African languages because there is no market. In countries like Zimbabwe, besides the lack of a market, there is also no incentive given to authors and academics by the government for publishing texts in local languages. Kadenge and Mugari (2015) assert that one of the excuses given by the Zimbabwean government on their failure to promote indigenous languages is a lack of funds to support such activities. However, scholars and politicians are often in opposing camps with regard to the implementation of policies. Van der Reede (2015) argues that there is lack of political will among African leaders to effect policies on the promotion of indigenous languages. As a result, the majority who are socially disadvantaged suffer the most, because most of them can only afford to send their children to free or affordable state schools, though many such schools are marred by acute resource shortages. Thus, most children in Africa have access to education but not access to quality education (van Fleet 2012).

Factors associated with low SE factors are also another common characteristic in most African countries (Ngorosho 2011; Johnson 2009). Poverty is rampant in the majority of African countries and there exist massive inequalities between the rich and the poor (World Bank Report 2018). Also, government expenditure on education as a proportion of the Gross Domestic Product (GDP) is generally low in Africa in relation to the global mean of 4.4% (UNESCO 2018). The World Bank (2021) reports the global mean expenditures according to the following economic groupings: high-income countries (4.7%); middle-income countries (4.3%) and low-income countries (3.5%). According to Lewin's estimates (2020), 6% is needed for low-income countries to provide more equitable basic education. As a result of low state expenditure on education, most schools are characterised by poor and out-dated infrastructure in most developing countries. This is worse in countries that are hard hit by poverty and civil wars. There are countries where some pupils still learn in the open air in this 21st century, for example in Zimbabwe, South Sudan, Malawi, Madagascar and Angola among others (UNICEF Zimbabwe 2019; UNESCO 2016). The situation is worse in remote rural areas where schools do not have basic furniture, electricity, proper sanitation, clean

drinking water, computers and stationery. A report by the ILO (2016) states that some schools are not fenced so vehicles are driven through the school grounds and animals and people pass through the schools, disrupting the learning activities. Due to these unfavourable conditions the majority of teachers in rural areas are either under qualified, unqualified or untrained because qualified teachers prefer urban and private schools which are better off. The untrained teachers lack the necessary knowledge and skills and this affects how they teach and deal with learners. Makuwa (2010) asserts that higher levels of relevant pedagogical training and general education help teachers to be more effective in their teaching.

There are also high rates of teacher and pupil absenteeism in schools, which is worse in rural settings, and which negatively impact the learning process. The Association for the Development of Education in Africa (ADEA) Policy Brief (2013) reports that this is a growing challenge in most African countries, which adversely affects the pursuit of quality education in developing countries. DeStefano's (2012) study in one of Mozambique's provinces found that absenteeism by both teachers and pupils was rampant, which negatively impacted the teaching and learning process. There are a number of reasons for teacher absenteeism which range from poor remuneration, poor working conditions, weak management systems to personal factors like illness, laziness and poor discipline among others (Sabarwal & Abu-Jawdeh 2018; ADEA 2013). Absenteeism is a common trend in most developing countries (Sabarwal & Abu-Jawdeh 2018). Of the time allocated for learning in Guatemala, Honduras and Mozambique, 44%, 58% and 67% respectively is lost due to absenteeism (DeStafano 2012). This seriously affects learners' progress. Sabarwal and Abu-Jawdeh (2018) assert that even when teachers are in school, they do not teach, and when they teach, they do not teach well. Also, poor governance in some schools accounts for the wasted time during the school year (DeStafano 2012). This makes the teaching and learning context in developing countries very challenging. Coupled to teacher absenteeism is learner absenteeism. This is again a common practice in Sub-Saharan Africa, South Asia and other developing countries. There are a number of factors associated with learner absenteeism which include personal factors like illness, learning difficulties; socio-economic factors like food insecurity, non-payment of fees, child labour; and school factors like poor pupil-teacher relationships and bullying (Magwa & Ngara

2016; Community Agency for Social Enquiry and Joint Education Trust 2007). Such factors militate against the provision of quality education in schools

All of the above factors adversely affect the teaching and learning processes in sub-Saharan Africa and other low and medium economies across the world. As a result, learners graduate from primary and high school with weak basic reading literacy skills and with weak academic literacy skills which compromise learning at all subsequent levels of schooling.

Having provided a brief overview of the various factors that can impact on the teaching and learning context in Africa, I round off the section by presenting four possible scenarios in our education systems:

- In Scenario A, schooling starts off badly in the foundation years (poor early reading literacy development) and continues badly throughout schooling (although some good learners make it through to university). As already discussed, most countries in sub-Saharan Africa find it difficult to provide quality education in state schools due to a number of factors that were highlighted, so most learners have a poor start and the majority might never be rescued, some of whom will end up among the dropout statistics. A few manage to learn despite adverse conditions and proceed to university and other tertiary institutions, but among them will be those students who continue to struggle due to an initial inadequate development of reading and academic literacy skills, and continued poor development of such skills throughout the school years.
- In Scenario B, schooling starts off adequately (i.e. learners develop basic literacy skills) in the early primary years but deteriorates in middle primary school due to lack of support for the higher cognitive demands of later primary school. Some teachers fail to adequately facilitate the transition at Grade 3 and 4 levels, as well as the later transition at Grade 6 and 7 levels which are the final years of upper primary in Zimbabwe. Even if learners initially start well, if there is no conducive environment to support further progress in the later primary school years, pupils will eventually fall behind because learning is a cumulative process which requires continuity and consistency.
- In Scenario C, schooling starts off well in both foundation and upper primary school but deteriorates in high school. The transition from primary to secondary

school, if not managed properly, might have detrimental effects on learners who would have had a sound primary education base. Secondary education is different from primary school learning and this is when a lot of higher order skills and academic literacy should be nurtured. If high schools fail to assist learners' transition smoothly, many will not make it. Though availability of qualified teachers is essential to effective learning, learners should also be provided with adequate learning material. They also need to be trained to be autonomous learners who can 'read to learn' on their own.

- In Scenario D there is a possibility that schooling starts off slowly in primary school but that most learners gradually catch up on their own by high school, despite disadvantageous beginnings. In other words, although there is a time-lag in development, it is not detrimental in the long run. In most African countries learning in the primary school starts slowly yet there are students who succeed despite all the factors which might militate against them (DeStafano 2012).

Thus, this study aims to find out more about the development of reading skills at Grade 3 and 4 levels in order to provide possible solutions to the scenarios which exist in the Zimbabwean education system as highlighted above.

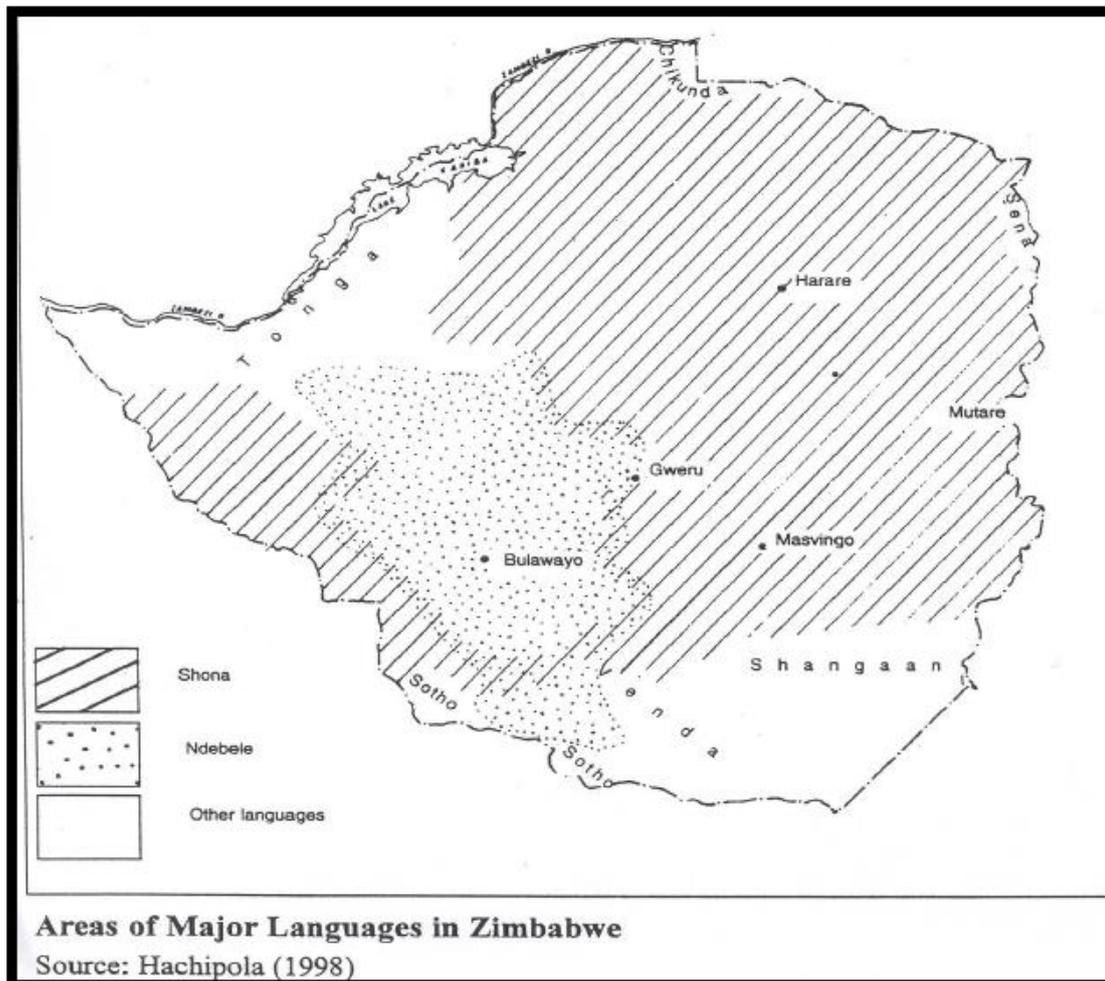
1.4.1 Languages and language policy in Zimbabwe

In the previous section I briefly described the learning and literacy contexts in Africa to sketch a general picture of schooling and learning in the African context. This section examines the Zimbabwean situation in particular. I focus on the languages spoken by local people and also used in schools. I also look at how the language policy evolved from independence to the present day.

Like many African countries, Zimbabwe is multilingual but there are three main languages that are commonly used, namely Shona, Ndebele and English. Shona is spoken in the greater part of the country (in Mashonaland, Manicaland and Midlands) and about 75% of the population speaks Shona as home language. Ndebele is spoken by about 16% (in Matebeleland and part of Midlands), 7% of the population speak other endoglossic languages (i.e. indigenous languages such as Tonga, Nambya, Kalanga and ChiChangana) (in parts of Matebeleland South, Midlands and Manicaland respectively)

while 2% speak English and other European languages as home languages (Magwa 2010; Nyika 2008). Magwa (2008) states that of the 55 districts in the country, 42 are predominantly Shona-speaking, 13 are predominantly Ndebele and four of the districts in Matebeleland speak Tonga, Nambya, Kalanga and Venda, as shown in the linguistic map of Zimbabwe in Figure 1.1 below. However, English is the official language which is used in all official communications in the country. It is also the medium of instruction in schools from Grade 1.

Fig 1. 1: Map of the indigenous languages of Zimbabwe



Zimbabwe became independent in 1980 but the first Education Act was only passed in 1987 which means that for the first seven years after independence the government was informed by the colonial government’s Education policy. Although the Education Act states that the indigenous languages may be used as LoLT during the elementary years, this is not being widely implemented (Magwa 2010; Peresuh & Masuku 2002; Hachipola 1999), and English is typically used right from preschool. Shona and

Ndebele are referred to as national languages and are taught as subjects from Grade 1. Among the other indigenous languages Kalanga, Tonga, Venda, ChiChangana and Nambya are the ones that are taught as home languages up to Grade 3 in the areas where they are spoken, although the Education Act of 1987 says they may be used as LoLT. Quite a number of factors account for this situation in Zimbabwe and these include lack of resources, lack of trained personnel in the schools and lack of political will. There are few resources for both the pupils and the teachers in the schools, and even in the teachers' colleges only the main local languages are offered as teaching subjects (Shona and Ndebele).

There is no material in content subjects (e.g. History, Geography, Science and Maths) in the two indigenous national languages or in the minority languages, save for literature and language books. All textbooks for content subjects and Maths from Grade 1 to high school are in English. Even the main local languages (Shona and Ndebele) rely on texts that were published quite long ago. Publishers do not see any advantage in publishing texts in local languages because most schools do not have budgets to purchase the books and even the public libraries no longer have the capacity to buy books, especially those in local languages.

Post independent Zimbabwe continued with the training of Shona and Ndebele teachers without recognising the need to include the training of minority language teachers, even though the Education Act stated that some of these minority languages could be used as the LoLT in the foundation stage in communities where they were spoken. It was not until fairly recently (2006) that Great Zimbabwe University and Midlands State University embarked on the introduction of degree programmes in Venda, ChiChangana, Sotho, Kalanga and Tonga as a way of promoting the minority languages. These universities rely on books from South Africa, Botswana and Zambia, as very few are written by Zimbabwean writers. They also use reading material published in English. There is still a lot of work to be done in as far as materials development in minority languages is concerned.

Minority languages are spoken in local communities but only a few of them are taught formally as subjects in the primary schools (Peresuh & Masuku 2002). Hachipola and Gatsheni-Ndlovu (2009) assert that language and education are dependent on each other but there is no clear language policy in Zimbabwe which informs educational

operations. Nhongo (2013) argues that this is a common practice among most African countries; there are few official language policy documents, and many African states rely on Acts of Parliament for the teaching and learning of languages. The situation in Zimbabwe is worsened by the fact that there are no independent boards meant to develop and promote indigenous languages, save for the Zimbabwe Indigenous Languages Promotion Association (ZILPA) which was more of a pressure group meant to influence the government to amend the 1987 Education Act so that it could accommodate minority languages and it succeeded. There is also the African Languages Research Institute (ARLI) which is an interdisciplinary research unit at the University of Zimbabwe responsible for the compilation and publication of a number of dictionaries in Shona and Ndebele. Magwa (2008) argues that the ruling elite are reluctant to look into language policy issues because they feel safer and they stand to benefit more from the status quo. By maintaining the status quo only a few people (them included) will have access to quality education and as a result have access to opportunities in the job market. Such a situation leaves the majority of Zimbabweans disempowered because they would not be able to access quality education which helps in economic mobility.

The Act of 1987 was amended in 1996 and again in 2006 and it is the latter one guiding the current educational operations in the country. Section 62 of the amended Education Act of 2006 refers to the subjects to be taught in schools, stating that:

- Subject to this section all three main languages of Zimbabwe namely Shona, Ndebele and English shall be taught (as subjects while English is the LoLT) in all schools up to Form 2 levels (i.e. Grade 9).
- In areas where indigenous languages other than those mentioned in subsection (1) above are spoken, the Minister may authorise the teaching of such languages in schools in addition to those specified in subsection (1).
- The Minister may authorise the teaching of foreign languages in schools.
- Prior to Form 1 (i.e. Grade 8) any one of the languages referred to in subsection (1) and (2) may be used as a medium of instruction, depending upon which language is commonly spoken and better understood by the pupils.
- Sign language shall be the priority medium of instruction for the deaf and the hard of hearing.

Despite the provisions above, English has remained the preferred medium of instruction, even in preschool. The continued use of English as the LoLT could be the result of a combination of factors discussed earlier viz; of lack of resources and training of personnel as well as enforcement by the responsible authorities in as far as the provisions of the Act are concerned. Its use is not a secret; everyone in Zimbabwe knows that this is what is happening in the schools but no-one ever queries the practice. Maseko and Dhlamini (2014) argue that English is seen as the most convenient and neutral language to be used as the medium of instruction in Zimbabwe. Maybe that is the general feeling about English in the country.

The 1996 Education Act stresses that English is the medium of instruction from Grade 4 through tertiary level while Shona and Ndebele and some minority languages should be used as instructional media up to Grade 3. Thereafter it is recommended that Shona and Ndebele be taught only as language and literature subjects up to tertiary level. Besides being the medium of instruction, English is also taught as a subject from Grade 1 to Form 4 (Grade 11). However, Thondhlana (2000) argues that despite learning in the colonial languages (English, French or Portuguese) from the early years of formal schooling, most children in Zimbabwe and elsewhere in Africa are not proficient in either reading and language proficiency in the colonial language. This is so because most African children encounter the LoLT (English, French, and Portuguese) in school, while after school they go back to their home languages. Most of the teachers are L2 speakers of those languages just like their pupils and some might not be very proficient. Furthermore, reading might not be a strong focus in schools. Lack of reading resources further hampers the ability to practise reading; this also affects proficiency (UNESCO 2016; Willis et al 2014).

There is a large body of research that shows that children learn to read more easily and better in a familiar linguistic medium (Pretorius & Mampuru 2007; Cummins 2001; UNESCO 1953). Research has established that children whose first home language is well developed will have fewer challenges in learning an L2 and becoming literate in the L2 because some reading concepts and strategies transfer easily from one language to another, for example decoding skills, scanning, skimming and reading for meaning, making inferences among others (Fernandez 2007; Benson 2004). Cummins' (2000) concept of the Common Underlying Proficiency (CUP) states that during the course of learning one language, a child acquires skills and implicit metalinguistic knowledge

that can be drawn upon when learning another language. All this is possible where efforts are made to promote children's reading literacy in their home languages through the provision of storybooks, texts and other reading resources in the languages, coupled with well trained and effective teachers, especially at the elementary stage. Children will benefit from effective teaching and a lot of practise and exposure to relevant reading material. This will make them good readers and also facilitate the transfer of skills and concepts as mentioned by Fernandez (2007). These issues will be discussed further in Chapter 2.

In Zimbabwe most children use their L1 during the first five years of child development and they are introduced to L2 once they enrol for early childhood education (i.e. preschool; some children are enrolled for early childhood education as early as three years). The early childhood programme is scheduled for two years in Zimbabwe and at preschool children are taught in English but when these children go back home they switch to their L1. The initial Education Act of 1987 states that Shona/Ndebele *may* be used as the medium of instruction prior to Grade 4 while the Amended Education Act of 2006 also states that the indigenous languages commonly spoken in specific areas *may* be used as medium of instruction prior to Form 1 (i.e. Grade 8). *May* is a modal verb which is used to express possibility so in this case *may* gives educators the option of either choosing to use English or indigenous languages, and all the schools inclusive of preschools in Zimbabwe use English as the medium of instruction. Furthermore, the Amended Education Bill of 2018 also states that the mother tongue *is to be used* as a medium of instruction during early childhood education. This is a clear example of what Bamgbose (2000:111) observed, namely that "language policies in African countries are characterised by one or more of the following problems; avoidance, vagueness, arbitrariness, fluctuations and declaration without implementation." This is a very accurate though sad observation which was made over 20 years ago but which still obtains in most African countries, as exemplified by the situation in Zimbabwe. English has assumed a high status in Zimbabwe and other African countries because the government, parents and teachers associate the language with material pay offs and social mobility (Kamwangamulu 2013; Marungudzi 2009). Given the status quo, my study is focussed on finding out more about how Grade 3s and 4s are performing in English reading development and the kind of support provided in schools and classrooms to help them become proficient and literate users of English.

1.4.2 The Zimbabwean Education System

The transition from early to middle elementary, which is the focus of this study, entails moving from basic reading skills (learning to read) to more advanced reading skills and academic literacy development so that reading becomes a tool for learning (reading to learn). Most education systems follow the same trajectory, though there could be differences in the number of years spent within a certain stage. For instance, the Zimbabwean education system takes 13 years from Grade 1 to the end of high school while other countries take 12 years. The system in our country has four distinct stages, namely early childhood, primary, secondary and tertiary education. For the purposes of my study I will briefly focus on the first two stages.

Stage 1: Early childhood education (Preschool)

The first stage is Early childhood education (ECD) which falls under the Early Childhood Education and Care programme. It encompasses preschools, crèches and nurseries, taking care of children from 3-5 years. The centres are registered with the Ministry of Education. Initially the centres were concentrated in urban areas but the Ministry has now established a preschool centre at almost every primary school throughout the country. It is now mandatory for all children to enrol for early childhood education before proceeding to Grade 1 (Kanyongo 2005). Moyo, Wadesango and Kurebwa (2012) assert that early childhood development programmes were fully incorporated into the formal primary school system by 2006. Available data from the Ministry of Primary and Secondary Education (MoPSE) (2020) indicates that by 2019 there were 6 647 ECD centres in Zimbabwe. Tichagwa (2012) states that at these centres children are supposed to be taught basic concepts like colours, shapes, names of animals and objects, numbers and also social interaction skills. Children are also expected to do a lot of drawing, they are introduced to the alphabet, learn to write their names and listen to storybook reading. ECD centres also help children to develop cognitive, linguistic, social and affective skills through play. As already stated, English is the medium of instruction in preschool centres.

Even though they are now mandatory, most of these early childhood centres are poorly resourced, with children learning in old classrooms, under trees, in old community centres or clubs. There are inadequate resource materials for the learners and the classes are often too big which deters meaningful teacher-pupil interaction (Bukaliya &

Mubika 2012). Some of the teachers are inexperienced and untrained, an issue to which Moyo et al. (2012) refer, pointing out that such teachers lack the knowledge and skills relevant to implement ECD programmes. It was only in 2006 that a qualification in ECD programmes was introduced in primary teachers' colleges. All this has a bearing on the quality of teaching and learning in ECD classrooms. Thus, access to ECD has been facilitated but issues relating to quality ECD care and development still lag behind in Zimbabwe and most developing countries.

Stage 2: Primary education

After the Early Childhood Education level, pupils enrol in primary school at 6/7 years of age. The first phase of primary school is referred to as the *Infant phase* while Grade 3 to 7 is called the *Junior school*. The period of primary schooling here is seven years. Although in 1980 primary education was made compulsory and free for all, with parents paying levies and contributing to building funds (Tichagwa 2012; Kanyongo 2005), the economic meltdown in the past decade has resulted in parents now paying school fees for their children. The Curriculum Development Unit (CDU) situated in Harare is responsible for the development and distribution of the school syllabi, which is used by all the primary schools in Zimbabwe. During the Infant phase learners do four subjects viz; Maths, English, Shona/Ndebele and Content (which incorporates agriculture, science, religious and moral education and social studies) while the Junior phase curriculum is very wide, ranging from academic subjects (e.g. Maths, Science and Technology, English, Shona/Ndebele etc), to practical subjects (e.g. Agriculture, Home Economics and Computers) to extra curricula activities (e.g. Physical Education, Mass displays, Music), all of which are compulsory to every primary school pupil. The recommended teacher-pupil ratio is 1:30/40 but practically most public schools have classes of around 50 or more pupils, depending on the physical location of the school and other factors like the pass rate. This is more prevalent in high density suburbs, in schools that have a record of high pass rates, and in government schools where the fees and levies are lower than private and mission schools.

Teachers' qualifications range from certificates, diplomas to degrees. The certificates/diplomas are in primary education while the degrees are in specific subject areas (for example Bachelor of Arts English/History, Bachelor of Education Early Childhood Studies or Bachelor of Primary Education degree. However, the Ministry of

Higher and Tertiary Education, which is responsible for the teacher training colleges, has since upgraded the certificates to diplomas, while degrees are offered by universities as further education for teachers as well as undergraduate programmes. Currently the Ministry of Education only deploys individuals with formal educational qualifications, save for critical areas like Sciences in secondary schools. However, even with these qualified and trained teachers in Zimbabwean primary schools, students who enrol in universities have serious academic challenges. This draws us back to the scenarios mentioned previously on the possibilities of what might be happening in schools, where learners might get off to either a poor or a good start and uncertain support systems from the teacher, school, home or community as they climb the schooling ladder.

According to Kanyongo (2005:67) Zimbabwean education in primary school “... is guided by the policy of unimpeded progress.” Learners move from Grade 1 to Grade 7 without grade repetition, there are no public tests/examinations to monitor learner performance save for the end of term tests administered by the schools. Some schools used to administer tests to assess pupils’ reading ability in order to identify learners who need extra assistance, especially at the end of Grade 3, but it is no longer a common practice in most schools. Learners continue to the next grade even when they perform far below their grade level, some drop out of school on their own while others continue and write the Grade 7 public examination and end there or proceed to Form 1 (Grade 8). Such learners will be admitted into government secondary schools because schools are not allowed to turn away students even when their Grade 7 results are poor.

At the end of Grade 7 pupils sit for the public examinations in Maths, English, Shona/Ndebele, Agriculture and a General Paper which covers Religious and Moral Education, Environmental Science and Social Studies. Each subject has two papers, a multiple-choice paper and a structured paper. For English the first paper has short comprehension passages accompanied by multiple choice questions and questions on language structure, while the second paper contains composition topics and comprehension passages where the candidates should provide their own answers. The average age at this level is 12.5 years but it is possible to find older pupils in some classes. The pupils’ performance in the Grade 7 examinations does not necessarily affect their progression into secondary school, although some schools do have selection criteria. This means that pupils who do not perform well will carry over their challenges

into a higher level and thus continue falling further behind because the academic demands of the higher level are more advanced, and support for struggling pupils in high school is not readily available.

Having identified the development of reading literacy skills during the early years of schooling as the core focus of the study and having contextualised this within a broader context relating to educational challenges in developing countries in general and Zimbabwe in particular, I turn now to methodological matters related to this study.

1.5 Research methodology

The aims and research questions of a study determine to a large extent the methodology employed by the researcher. A mixed methods approach, referred to as the convergent parallel design or concurrent mixed methods, was adopted in this study because there were research questions which required the collection and analysis of both qualitative and quantitative data (Dörnyei 2007).

1.5.1 Aim of the study and research questions

In this thesis I use both broad and narrow investigative lenses to explore the development of reading literacy in Grade 3 and 4 primary schools. Although I focus specifically on oral reading fluency and reading comprehension and their relationship, in order to contextualise these skills, policy documents such as the curriculum were examined, the textual and lexical profile of narrative and information texts used in these grades were analysed, and Grade 3 and 4 classroom observations were undertaken to see how reading skills are taught in selected Zimbabwean primary schools. The research was conducted in 2016.

In order to achieve the aim of this study, I was guided by the following research questions.

RQ1 How do Zimbabwean policy documents position reading literacy in the elementary stage of primary schooling?

RQ2 How do Grade 3 and 4 narrative and information texts used in Zimbabwean schools differ in terms of their text and lexical profiles?

- RQ3 How do the Grade 3 and 4 learners perform on reading literacy assessments appropriate to their grades in the targeted schools?
- 3a How do the targeted Zimbabwean Grade 3 and 4 learners perform in reading comprehension (RC) and oral reading fluency (ORF) assessments?
- 3b How does performance on RC and ORF differ between the Grade 3 and 4 learners in this study?
- 3c What is the relationship between RC and ORF?
- 3d How does Grade 3 and 4 learner performance on RC and ORF differ in terms of gender?
- 3e How does Grade 3 and 4 learner performance on RC and ORF differ in terms of age differences within the grades?
- 3f How does Grade 3 and 4 learner performance on RC and ORF differ across the four schools in the study?
- 3g How is writing developed to support reading development in the Grade 3 and 4 learners?
- RQ4 What do the selected primary schools do to orientate children to reading literacy?
- 4a How do classroom resources support reading literacy development in the selected schools?
- 4b How do teachers carry out reading comprehension lessons in the selected schools?
- 4c How do teachers and principals perceive the role of reading literacy in the learning process?
- RQ5 What socioeconomic and classroom related challenges do Zimbabwean Grade 3 and 4 teachers and learners face during the early development of reading literacy in L2?

I collected qualitative data through the use of policy documents, textbook excerpts, learners' composition exercise books, classroom observations and interviews. The qualitative data addresses RQ1, RQ2, RQ4, RQ5. Quantitative data from the RC and

ORF learner assessments address RQ3 and its subquestions as well as aspects of RQ2. Throughout the research, ethical considerations were adhered to (to be discussed in greater detail in Chapter 3). I carried out a pilot study which helped in guiding decisions on the best possible instruments to use and procedures to follow for data collection. It also helped me familiarise myself with the instruments and procedures. The instruments and procedures that I adopted for the pilot study are the ones that I implemented in the main study, after some amendments and adjustments. I examined the Grade 3 and 4 English Language syllabus, I analysed samples of text excerpts from Grade 3 and 4 textbooks and learners' composition exercise books. I also made use of classroom observations to observe RC lessons after which I administered RC tests to all the classes that I worked with. I also administered ORF tests to a subsample of nine pupils per class for all the eight classes that I worked with. The class teachers and school principals were interviewed. Further details on the research methodology will be provided in Chapter 3.

1.6 Thesis structure

This chapter has served as an introduction to the study. It identifies the research problem, its background, the research aims and the research questions. The following is an outline of the rest of the thesis.

Chapter 2 is devoted to a review of related literature. This is in a bid to contextualise the focus of the study, theoretically and empirically. In this chapter the Simple View of Reading (SVR) and the Decoding Threshold Hypothesis (DTH) provide a theoretical framework for the development of early reading literacy which is my area of focus. Since reading centres on comprehension, the Construction-Integration (C-I) theory of reading comprehension was also used to understand how reading comprehension occurs. Academic literacy, the school environment, the nature of textbooks used in Grades 3 and 4, and the role of the home environment are also briefly reviewed to better understand how they affect reading literacy development at Grade 3 and 4 levels.

Chapter 3 sets out the research methodology underpinning the study. Here I focus on the research design, the subjects, materials, procedures and the analytical framework. I describe the pilot study and its contribution to data collection instruments, procedures and analysis in the main study.

Chapter 4, 5 and 6 present the findings from the various investigations that I carried out. Chapter 4 presents the findings from the policy document analysis and textbook analysis, while the analysis of Grade 3 and 4 learner assessments is presented in Chapter 5, as well as findings from learners' composition exercise books. Chapter 6 presents data from the classroom observations and teacher interviews.

Chapter 7 is the conclusion of the study where the main findings are highlighted and various quantitative and qualitative threads are brought together. This is where I also highlight the contribution of the study, make recommendations based on the findings, identify the limitations of the study and make suggestions for further study.

Chapter 2: Literature review

2.0 Introduction

Dörnyei (2007) describes the literature review as a ‘map of the terrain’ which helps to provide a historical and conceptual overview of the field one is pursuing. In this chapter I first provide conceptualisations of reading as presented by different scholars, followed by a discussion on five key components of reading, namely language proficiency, decoding, fluency, reading comprehension and vocabulary. The simple view of reading (SVR) and the decoding hypothesis threshold (DTH) will then be discussed as they provide a perspective on the relationship between these components. To further explain the concept of reading comprehension, the construction-integration (C-I) theory is also discussed in this chapter.

This study also presents reading as a developmental construct so there is a section on the stages of reading development as provided by Chall (1986). These stages provide a practical understanding of the challenges facing Second Language (L2) and disadvantaged learners as far as reading instruction is concerned. Since the texts and language used in school differ from ordinary texts and daily conversations, there is also a section on academic or schooled language. This construct goes hand in hand with reading development and the different kinds of texts used in the schooling context. Finally, I will also briefly discuss the school and home environment as factors that play an essential role in the development of reading.

2.1 Conceptualisations of reading

Reading is one of the key competencies required for successful learning. Geske and Ozola (2008) describe reading as the backbone of all learning processes, including the ability to learn all the subjects that one is exposed to in the school system. According to Delgadova (2015) reading is the currency used in schools which means that reading affords the learner access to information and the ability to participate in all the learning processes associated with formal learning. Without the ability to read one would be excluded from actively participating in school activities. As Delgadova (2015: 49) explains: “It is the core competency for processing the information gained, innovating

it and consequently creating new knowledge.” From the above it is clear that reading is critical in all learning processes.

Although scholars agree that reading is a complex process and also that it is central to all learning, there are varying explanations of what reading entails. This study adopts the position of those that describe reading as a complex cognitive process involving the interaction of a number of linguistic, cognitive, code-based, affective and social facets (Snow 2010; Guthrie, Coddington & Wigfield 2009; Commeyras & Inyega 2007; Koda 2007). Jeon and Yamashita (2014) assert that reading is a process during which a reader converts letters to sounds and thereby essentially to language. Without knowledge of either language or the code it is impossible for readers to effectively carry out the reading activity. Language is the medium through which reading is enacted; there is no reading without language. Hossein (2011) further elaborates the concept of reading by stating that during the process of reading there are low level processes which include decoding and its components and higher-level processes (thinking and reasoning skills) used in the creation, representation and interpretation of a text. The explanation foregrounds the cognitive and linguistic features of reading, helping to show that reading is indeed a multifaceted process which cannot be fully explained without recourse to these features. Snow’s (2010) explanation of reading comprehension emphasises the construction and extraction of meaning by an active, motivated and engaged reader, showing further nuances to the complexity of the reading process. More will be discussed about meaning when I explore Kintsch’s (1998; 1988) C-I model of reading comprehension.

Schoenbach, Greenleaf, Cziko and Hurwitz (1999) argue that reading is a complex process which entails evoking voices, memories, knowledge, experiences, understanding, interpreting and drawing on several strategies among other things in order to understand a text. They include cognitive-linguistic as well as affective factors in their conception of reading. Pretorius (2010) points out that because affective factors (which include attitudes, motivation and emotions) are influenced by the social environment in which readers exist they also play a key role in the process of meaning making. The Programme for International Student Assessment (PISA) (2013:9) describes reading as “... understanding, using, reflecting and engaging with written texts, in order to achieve one’s goals, to develop one’s knowledge and potential, and to participate in society.” This explanation emphasises the purposes of reading all of

which rely on text comprehension, without which it will be difficult to engage in meaningful reading. All the above descriptions draw attention to various dimensions of reading. Thus, reading is not a single skill or event but a multifaceted process which involves a number of cognitive, linguistic, textual, affective and social factors which work together to bring about text comprehension. It should be noted that the common factor when engaging in any reading activity is meaning construction.

Tankersley (2003) likens the multifaceted nature of reading to a tapestry of tightly woven strong foundational threads namely: phonemic awareness, phonics and decoding, fluency, vocabulary and word recognition, comprehension and higher order thinking skills. These threads entail cognitive-linguistic factors some of which have been mentioned above; if one of the threads is missing there are holes in the tapestry and the weave cannot hold tight and cannot also function for lifelong use. For instance, if the low-level skills have not been mastered it affects the individual's reading ability and performance in school and even later in life. It is also noteworthy that the higher-level processes depend on the low-level abilities which means there is an interaction between them. In skilled reading, the process is bidirectional (National Reading Panel 2001).

Boakye (2015) opines that reading has been construed as a cognitive-linguistic accomplishment but research has also shown that it is a socially constructed phenomenon (Gee 2008; Street 2003). Alderson (2000:25) points out that reading is "context-bound and socially embedded." Reading cannot be fully explained leaving out the social aspect of it, considering that humans are social beings who carry out the act of reading in various social settings for different goals/purposes.

New Literacy Studies proponents focus on the influence of social factors in reading development, which starts from the crib and continues as children develop. They examine the role of the family, the community and the school in the development of reading. Heath (2001) says print rich home environments, reading among family members and discussions of texts are all forms of social literacy that may develop and enhance reading proficiency. Since environments differ according to context, this means that reading development takes place differently among children (Street 2016) which also helps to explain the individual differences that exist among learners. Those who hail from rich social contexts are better positioned than their counterparts from

disadvantaged backgrounds. Although my study is situated primarily in the cognitive-linguistic framework, this does not dismiss the contribution of other frameworks which also try to show how meaning is created through reading. Since my study looks at the contribution of the school environments in reading development this makes it valid to incorporate the social aspect of reading. This will be explored further in Section 2.10 which focuses on the influence of SES factors in the development of reading.

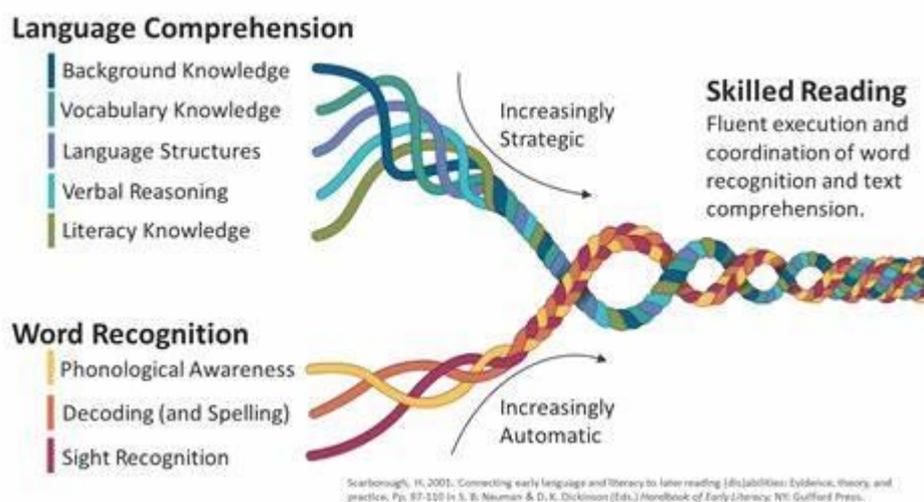
In sum, reading basically involves three major components which are language, decoding and comprehension, embedded within a social context, and these components carry within them a number of sub skills which a reader should be able to execute for effective reading to take place. The components and sub skills are highly dependent on one another and it is their development and integration which results in successful and effective reading.

2.2 The components of reading

This section describes the various components that make up the reading process. These components include decoding, fluency, reading comprehension and vocabulary development. The reading components comprise sub-skills which will also be described so as to better understand this complex process.

The componential nature and complexity of reading is best illustrated by Scarborough's (2001) reading rope model which emphasises that there are lower (word recognition) and upper (language comprehension) strands which are tightly woven together for skilled reading to be attained (cf Fig 2.1).

Fig 2. 1: Scabourough's reading rope



Adapted from Scarborough (2001)

In this section I will identify the different strands (components and subcomponents) and show how interdependent and interconnected they are. However, I will start by providing a brief background on the alphabetic code since English orthography is based on the alphabet.

2.2.1 The alphabetic code

The orthography of a language plays a critical role in the acquisition and development of early reading. A brief reference to Shona (as a representative of African languages) orthography will also be included since the majority of learners in this study are Shona L1 speakers.

Both English and Shona have alphabetic writing systems which means that oral language is represented in writing at the level of phonemes, by letters or combinations of 2-3 letters (called digraphs and trigraphs). English uses 26 letters of the alphabet to represent its 44 phonemes (Brooks 2015) but Shona uses only 24 (the letters *l* and *x* do not represent phonemes in Shona). There are about 44 phonemes in the English language while Shona has about 34. English has 22 vowel phonemes but uses only 6 letters to represent them *a, e, i, o, u, y* which shows the complexity of English vowels. On the other hand, Shona has a simple 5 vowel system /a, e, i, o, u/. Reading processes depend heavily on orthographies of the languages in question and it is important that

learners understand from the onset that the written letters represent the spoken sounds (Bonifacci & Tobia 2017; Pugh & Verhoeven 2017).

Orthographies can be transparent or opaque. A transparent orthography is one where there is a one-to-one relationship between letters and sounds they represent (Hengeveld & Leufkens 2018) and Shona falls under this category. When using a transparent orthography, it is possible for learners to infer the spelling of a word from its pronunciation. Such orthography is straightforward and scholars assert that children learn to read more easily in languages with transparent orthographies (Seymour, Aro & Erskine 2003). An opaque orthography is characterised by inconsistency and irregularity between the letters and sounds (also referred to as graphemes and phonemes). English, French and Portuguese have opaque orthographies (Bonifacci & Tobia 2017). For example, in English one sound /ou/ can be represented by multiple spelling alternatives -*oa*, *ow*, *oe*, *ough*, as in *robe*, *boat*, *both*, *toe*, *dough*. Consequently, some words in English simply have to be learned as whole words as their pronunciation cannot be decoded from the letters alone. These are called sight words, e.g. *once*, *people*, *thorough*. This many-to-one or one-to-many relationship explains the complexity of the English alphabetic code which scholars say makes learning to read in English difficult (Pugh & Verhoeven 2017; van Rooy & Pretorius 2013; Seymour et al. 2003). Cracking the alphabetic code helps learners learn to read in any writing system, though for opaque languages learners also need access to stored phonological representations of sight words due to the inconsistencies and the irregularities embedded in the spelling system of English (Borieffs, Maassen, Lyytinen & Zwarts 2017; Seymour et al. 2003). Stored phonological representation of words refers to the underlying sound structure of specific words stored in the reader/learner's long-term memory. The ability to access such is essential in opaque languages like English. Seymour et al. (2003) argue that L1 children learning to read in English require two and half years to develop automatic word recognition skills while children learning to read in a transparent orthography can develop decoding skills within a single year. Alphabetic decoding skills are transferable; if children first learn to read in a transparent orthography they can transfer their decoding skills when they learn to read in English (van de Ven, Voeten, Steenbeek-Planting & Verhoeven 2018).

2.2.2 Oral language proficiency

Oral language proficiency is another key aspect of reading development. Oral language is a broad construct which encompasses various aspects like phonology, morphology, vocabulary, grammar and discourse (Kim et al. 2016). Reading and writing are expressed through language and oral language skills are therefore necessary and form the foundation for reading and writing development (Kim et al. 2016; Gottlieb & Ernst-Slavit 2014; Ramirez 2000). This ability does not concern L2 learners only but also L1 speakers. Even though all children have acquired the basics of their home language by the time they start school, there is great variation in their oral language proficiency (especially vocabulary knowledge), depending on the kind of language input to which they are exposed at home (Buckingham, Wheldall & Wheldall 2014; Hart & Risley 2003). So even in L1 contexts children are exposed to varying language contexts which can either spur or deter the development of these critical skills.

Oral language skills start to develop early in children's lives, from birth (Shanahan & Lonigan 2020). By the time children enrol for preschool they already have oral language skills, though in varying degrees (Brooke 2007), with some children displaying advanced oral language skills while others lag behind. These differences can be attributed to a number of factors which include exposure to rich oral language contexts, socioeconomic status (SES) or developmental factors. Children need rich linguistic input frequently and they should also engage in meaningful oral language interactions in the home and in formal school contexts. Hart and Risley's (1995) longitudinal study clearly showed large gaps in the development of vocabulary (an important aspect of oral language proficiency which is also essential for comprehension) among English children from different SE backgrounds.

Oral language proficiency impacts on both word reading and language comprehension (Shanahan & Lonigan 2020). Children who struggle with phonemic awareness (an aspect of phonological awareness, as will be discussed later) will have challenges with word reading skills (Brooke 2007). Knowledge of the alphabet and phonological awareness are both strong predictors of decoding. Children's vocabulary also significantly impacts both oral and reading comprehension (also discussed later). Kim et al. (2016) assert that most teachers do not realise the importance of oral language skills. Aspects of oral language like phonological awareness and vocabulary should be

explicitly taught to enhance reading literacy among learners. Oral language skills are not only linked to code-related skills but also provide the foundation for the development of more advanced language skills needed for comprehension (Cain & Oakhill 2007).

2.2.3 Decoding

Decoding refers to the ability to understand that a printed word represents the spoken word and that this printed word is made up of a sequence of phonemes (Espinoza 2010). Powell and Hornsby (1993:21) describe decoding as “sounding out a word or using letter-sound correspondences to unlock the pronunciation of a word.” It is an essential skill which contributes to reading comprehension. It comprises several sub skills such as phonological and phonemic awareness, letter-sound knowledge and word reading. In decoding learners learn about sound-symbol correspondences and how to blend them to sound out what is printed. To be able to decode the learner has to know that print is important, that print messages are carried in words, that words are composed of letters which correspond to sounds that are heard in the spoken word, that words carry morphological and syntactic information and that sequences of words form sentences that convey ideas, opinions and information. Beck and Juel (2002) state that decoding is also referred to as word recognition or word identification, word attack and sight word recognition. Sight words are typically associated with English reading and, as indicated earlier, they refer to words with irregular spellings which cannot readily be decoded (Ehri 2005). Many sight words are also decodable high frequency words that children learn to recognise early (e.g. *mat, cat, dog, can*) but some are not (e.g. *colonel, lieutenant*) (Hayes 2016). With practice readers can easily and effortlessly read sight words and this aids fluency and comprehension. However, in transparent agglutinating languages such as African languages with their complex morphology, sight word reading plays a smaller role (Spaull, Pretorius & Mohohlwane 2020) as all words are readily decodable and some words are very long and cannot be recognised from sight alone (e.g. *nzvengamutsvairo*).

Decoding also involves unique strategies (also called word attack strategies) which a learner employs to read unknown words or irregularly spelt words in opaque orthographies such as English. The decoding strategies make use of letter-sound knowledge (e.g. the digraph *ea* represents the vowel sound in English words like *meat*,

bean), blending letter sounds to read words (b+l as in *blow*, *blink* or *treble*) and knowledge of orthographic patterns, for example, recognising the letter pattern *-ing* in English in words like *eating*, *coming*. These strategies are particularly important in opaque orthographies such as English. These strategies include segmenting a word into separate sounds (e.g. *f + r + o + g* makes *frog*) or drawing analogies to other words with similar patterns or parts for example, if the word *dream* is unfamiliar the learner can think of the /ea/ sound in *cream* or *bean*. The learner can also chunk the word into syllables (e.g. *break/fast*). All this helps the learner to eventually read out the unknown words correctly. Learners cannot be successful readers if they have not mastered decoding skills.

Decoding is one of the constrained skills in reading (Kuhn & Levy 2015). Constrained skills are limited in scope; they consist of a finite system, for example a finite number of sounds in the sound system of a language and letters to represent them (e.g. English has 44 phonemes and 26 letters of the alphabet that represent them). Phonics refers to an instructional approach that teaches children how the finite alphabetic code works. Because of their finite nature, constrained skills can develop quickly over a relatively brief period of time, for example, phonics is taught mainly within the first year or two of schooling through direct instruction. Thereafter, decoding skills are assumed to have been mastered. The assessment of constrained skills is relatively easy and accurate, especially when working with alphabetic languages. In South Africa and Zimbabwe formal phonics instruction only begins in Grade 1, not preschool. Some alphabetic learning happens in preschool but it is play based and informal. Normally by end of Grade 1 learners should have mastered the letters of the alphabet and this can easily be assessed during the learning process. Because constrained skills are learnt during the early stages of schooling this implies that if learners fail to master these skills early, reading will become a challenge in their schooling. Research shows the importance of mastering decoding skills during the early years of schooling (Spaull et al. 2020; Hall 2008; Carson, Kirby & Hutchinson 2000; Goswami & Bryant 1990).

Furthermore, Stanovich's (1986) study showed that children who start slowly rarely become strong readers, while those who become proficient in decoding early become increasingly better, what he referred to as the Matthew effect, colloquially expressed as the 'rich get richer and the poor get poorer'. He asserts that the phenomenon springs from findings which show that individuals who have advantageous early educational

experiences are able to utilise new educational experiences more efficiently. Learners who can read well from the beginning tend to have a positive reading cycle: they read well, they tend to enjoy reading so they read more, which in turn further increases their reading skills; they have good vocabularies, but through reading more, they learn more words and enjoy reading more. Conversely poor readers get into a negative reading cycle: they read slowly, and because they read slowly they tend to read without enjoyment, and so they read less, get less reading practice, and they consequently have poorer decoding skills and smaller vocabularies, both of which inhibit further growth in reading ability. Therefore, it is important that learners acquire the ability to decode early because this has ripple effects in their learning process. Decoding ability is strongly influenced by early reading instructional approaches. Children benefit from being taught phonics explicitly and systematically (Castles et al. 2018; Lipka & Siegel 2007; National Reading Panel 2001).

Since decoding is an important component of reading, its subcomponent skills are briefly discussed below.

Phonological and phonemic awareness

Phonological awareness is an umbrella term which encompasses a number of sound related skills necessary for reading development, for example, learning that the continuum of speech can be segmented into words, that words are made up of smaller sound units (syllables and phonemes) which can be manipulated to form different words (Kim et al. 2016; Brown 2014). Phonological awareness refers to individual's awareness of the sound structure of a spoken word (Gillon 2018). For learners to be able to decode words correctly they need to be aware of the sound structures of the language in use. This insight that words are comprised of individual sounds is what is referred to as phonemic awareness, the ability to distinguish sounds within words. Developmentally, phonemic awareness happens after children can distinguish larger units such words in speech and syllables within words.

Phonological awareness in English can be fostered without explicit instruction by exposure to nursery rhymes. Schumm and Arguelles (2006) assert that through phonological awareness learners are able to break a sentence into its respective words and also be able to tell that a given sentence has several words. It is through phonemic awareness that learners are able to distinguish between onset and rhyme in English

words, for example in the word *din* /d/ is the onset while /in/ is the rhyme (as in *bin*, *fin*, *gin*, *pin*, *sin*). This awareness also includes the understanding that words can be divided into a sequence of phonemes. Phonemic awareness is a finer skill which entails the ability to analyse the sound structure within a word through activities like identification of individual sounds, segmentation, deletion, blending among others. Phonological awareness can be explicitly assessed in the classroom, for example by asking learners to identify the number of words in a sentence or the number of syllables in given words. Phonemic awareness can be assessed through identification (which is the first and easiest aspect of phonemic awareness), segmenting, deleting, blending and substituting of individual phonemes within given words.

Phonological awareness is key to learning to read in all alphabetic languages and is not language specific, which means that once it is developed in one language it should be readily available in learning to read in other languages, although with adaptations to the phonological and orthographic languages in question (Koda 2007). Scholars argue that phonological awareness acquisition starts before preschool, when a child is exposed to a rich oral environment in the home, and nursery rhymes especially in English learning environments (due to the morphological complexity of word formation, rhyming seldom occurs in agglutinating languages such as African languages). The Zimbabwean local languages are alphabetic languages which means that once a child attains phonological awareness in the home language it is transferable when learning to read in an additional alphabetic language like English.

Scholars also point out that the relationship between decoding and phonemic awareness is bidirectional: children need phonemic awareness to learn to decode and spell, while learning letter sounds and spelling improve children's phonemic awareness (McBride-Chang 2004; Verhoeven, Elbro & Reintsma 2002). Research in Africa shows that phonemic awareness is critical (Spaull et al. 2020; Wilsenach 2018; Alcock, Ngorosho & Jukes 2017). Children who have insufficient phonemic awareness struggle with reading since understanding the sound structure of a word enables the reading learner to sound out a written word (Walsh 2009). It is easier to recognise a syllable in print if you know its letter-sound correspondence. The National Reading Panel (2000) showed that phonemic awareness is a strong determinant of a child's success in reading in alphabetic writing systems.

Letter-sound knowledge

Letter-sound knowledge is yet another essential aspect of decoding and it is directly related to phonemic awareness (the fact that letters represent sounds/phonemes) in alphabetic writing systems. If a learner has phonemic awareness it becomes easier to learn the mappings between letters and sounds (letter-sound/grapheme-phoneme correspondence). Phonemic awareness helps learners understand the alphabetic principle which entails the knowledge that words are made up of letters that represent different sounds, which in turn helps in pronouncing and spelling out words (NICHD 2000). Learners need to recognise that words are made up of discrete sounds which are represented by letters and letter combinations (s, sh), so they can make a connection between a letter, its name and its sound early in the process of literacy development. For example, *mat* has three sounds namely /m/-/a/-/t/, and learners should know the individual sounds of these letters, be able to articulate them as well as to spell the word. A recent study by Spaul, et al. (2020) with 785 Grade 3 learners across South Africa in three languages (Northern Sotho, Xitsonga and IsiZulu) using the early grade assessment (EGRA) framework to assess letter-sound knowledge and other basic reading skills, consistently showed significant correlations between letter-sound knowledge and word reading although they varied between the languages.

Since it has been established that letter-sound knowledge is critical for success in reading, its explicit instruction can not be overemphasised. Schumm and Arguelles (2006) state that teachers should offer effective letter sound instruction to learners.

Learners should efficiently process letter-sound codes in order for reading to be fluent and accurate. If the grapheme-phoneme correspondence is laborious then reading comprehension is also negatively affected. Chiappe, Siegel and Gottardo's (2002) study with native English speakers and bilingual children as well as ELLs at kindergarten level showed that phonological awareness and alphabetic processing were as predictive of reading skill for ELLs as they were for native speakers.

Word reading

Word reading (also referred to as word recognition, e.g. Hayes & Flanigan 2014; Jiang, Sawki & Sabatini 2012; Oakhill & Cain 2012) refers to the act of seeing a word and recognising it or being able to read it (i.e. de-code it) without any conscious effort, i.e. automatically (Hayes & Flanigan 2014). Word reading ability is one of the essential

lower level skills in reading development though it is not sufficient on its own (Hayes & Flanigan 2014; Oakhill & Cain 2012) since there are other lower and higher-level skills which contribute to the development of reading. When learners accurately and effortlessly recognise a word or a string of words in a text it helps free up their cognitive resources, thereby enhancing text comprehension (Jiang et al 2012; Oakhill & Cain 2012). It is important that word reading be efficient so as to achieve comprehension which is the ultimate goal of reading (Hayes & Flanigan 2014).

Word reading is directly connected to phonological awareness and letter sound knowledge. Learners who know the sound system of a language have knowledge of letters and how to segment, blend and chunk the sounds and letters perform better at word reading (Schumm & Arguelles 2006; Oakhill & Cain 2012). Poor phonological awareness results in reading difficulties which in turn affects their reading comprehension. Word reading is facilitated by more practice in reading since this also exposes learners to processing new and more complex words.

The ability to read words can be measured through both word and nonword/nonsense word reading tasks (the latter are words that conform to the phonological principles of a language but which do not actually exist, e.g. *brillig*, *slythy*, *toves*). Fien, Park, Smith, Stodmiller and Kame'nui (2010) found a high correlation between learners who could read nonsense words and their reading performance. Those who struggle during the process of reading real words also struggle with nonsense words.

2.2.4 Fluency

Fluency is another important aspect of reading and plays an important role in reading comprehension. Pennington (2009:4) defines fluency as, “the ability to read with expression, intonation and a natural flow.” Kuhn and Levy (2015:11) assert that “fluency combines accuracy, automaticity and oral reading, which taken together, facilitate the reader’s construction of meaning.” Fluent reading is a key component of proficient reading and is directly connected to decoding. Kuhn and Levy (2015) assert that fluency is a foundational skill and just like decoding it develops over a relatively brief period of time. It builds on oral language skills, phonemic awareness, familiarity with letter forms and efficient decoding skills. Rasinski and Padak (2013) refer to it as the bridge between word recognition/decoding and comprehension. Rasinski and Nageldinger (2012) argue that unless learners traverse the bridge of fluency they are

left on an island of words vainly attempting to decode or understand. If a learner lacks fluency then reading is adversely affected.

Fluency is a competence which can be measured to determine readers' overall reading level in order to be able to provide appropriate intervention strategies where necessary. Fluency is measured by observing a reader reading an unpractised text in one minute and taking note of the errors the reader makes during the process of reading. Errors here refer to any word that is omitted, mispronounced or substituted for another. The assessor takes note of the total number of words read and subtracts the total number of errors to come up with the total number of words correct per minute (WCPM) (Hasbrouck & Tindall 2006). This procedure caters for accuracy, automaticity and the speed at which a reader reads connected text. These three components work together to bring about fluency and if a reader is not proficient in any one of them it affects fluency. Although intonation is an important component of fluency, it is more subjective to assess and so fluency measures are usually determined by accuracy and speed.

Accuracy in reading develops first, then automaticity, rate and finally reading with prosody (Konza 2011; Schwanenflugel, Kuhn and Ash 2010). Accuracy refers to the ability to recognise and decode words correctly or reading without deviations (National Reading Panel 2006). This ability is highly dependent on phonological awareness, letter-sound knowledge and in an opaque orthography like English, knowledge of a large bank of mental lexicon (sight words). Inaccurate reading of words slows down the reading activity, making the comprehension of a text difficult if not impossible. If a learner lacks decoding and fluency competencies at the initial levels of the foundation phase it adversely affects overall success in reading as well as school performance. Automaticity as a critical component of reading fluency and refers to the ability to recognise words effortlessly/automatically (Lagerge & Samuels 1974). Kuhn and Levy (2015:14) describe automaticity as "instantaneous recognition of words in text without conscious effort or attention." Such a reader does not devote a lot of cognitive energy to the lower levels of reading such as decoding but channels most of the cognitive energy to the comprehension of the text. Comprehension is limited by inefficient, slow, laborious reading or too fast reading (Hasbrouck 2017). The learner should read with sufficient speed to enable text comprehension. Regular reading practice (i.e. reading extended text every day) is needed to develop fluency. Thus, it is imperative that during

the foundation phase learners have direct instruction and practice through repeated exposure to print.

Closely related to automaticity is rate or speed of reading. This entails how fast a reader reads, bearing in mind that slow reading negatively affects comprehension while an increase in reading rate relates to higher comprehension (Kuhn & Rasinski 2007; Fuchs et al 2001). At the other extreme, reading too fast also comprises comprehension because important details get overlooked. Because some teachers associate reading fluency with speed they emphasise reading rate so their learners learn to read fast and as a result they ignore punctuation marks, fail to pause or reflect on their reading and read in a monotone (Rasinski and Nageldinger 2012). Such reading is not effective; one becomes a fast reader by reading frequently. The large-scale study by Hasbrouck and Tindall (2006) shows how reading speed in English increases across the grades and provides fluency norms for teachers to identify struggling readers.

The other component of reading fluency is prosody or expression. Kuhn and Levy (2015:14) describe it as “the stress, emphasis and phrasing that create an expressive rendering of a text.” Rasinski, Rikli and Johnstone (2009) describe prosody as the melodic element of reading. This can only be done by a reader who has successfully acquired the foundational decoding skills. Groen, Veenendaal and Verhoeven (2018) assert that decoding is a prerequisite of prosody. The prosodic features include language specific pitch, stress, length of phrasing, appropriateness of phrasing, and pauses, according to punctuation and discourse conventions. Prosody enhances the meaning of a text at a deeper level because it goes beyond what is explicitly stated in the text. It assists the reader in parsing the text into meaningful chunks or phrases even where punctuation marks are not used to mark the boundaries. Callela (2003) argues that a reader who lacks fluency sounds choppy, robotic or speedy. Besides affecting the reader’s ability to comprehend, such reading does not sound natural when the reader is reading aloud. Fluency and comprehension develop in tandem: a learner who cannot read with prosody might fail to interpret a text meaningfully, while text comprehension helps the reader assign the correct prosody to the text being read. Prosody applies to both oral and silent reading and it works hand in hand with automaticity to produce efficient reading.

Though there are studies which show the relationship between prosody and comprehension, prosody has been reported to be more difficult to measure than fluency because there are no simple methods for quantifying prosody and assessment is more subjective. It can be measured using the National Assessment of Educational Progress (NAEP), Oral Reading Scale and the Multidimensional Fluency Scale (MFS). Studies which used these rating scales showed that there was a strong correlation between prosody and comprehension in the elementary stages of learning (Pinnell, Pikulsky, Wixson, Campbell, Gough and Hellinger 1995; Rasinski et al. 2009). Prosody also has an impact on reader motivation: non-prosodic readers read in a monotonous tone and tend to read less, and the amount of reading affects the development of prosody which means that the less one reads the more one falls further behind (Stanovich 1986). However, just like automaticity, prosody improves with practice (Rasinski & Nageldinger 2012).

Thus, reading fluency strongly depends on accuracy, automaticity, speed and prosody. Failure to reach sufficient levels of fluency at grade level has adverse effects on a learner. Besides affecting text comprehension, fluency can also impact on the learner's motivation for reading. When learners struggle to read they lose interest in reading and once this happens there is little room for improvement because the learner lacks practice and yet fluency improves with practice. Self confidence is also affected and this slows down student participation in reading activities, again closing doors for further practice (Rasinski & Nageldinger 2012). Non-fluent readers who avoid reading fall further and further behind (Rasinski 2003). Thus, reading fluency plays a critical role in reading literacy development and it is imperative that it be achieved in the early primary grades because other more sophisticated competencies rely on fluency (Chall 1996).

There are numerous studies which show a strong relationship between reading fluency and reading comprehension. Cook's (2003) study with Grade 1 learners showed a strong correlation, as did Buck and Torgesen's (2003) study with Grade 3 learners. Ambruster, Lehr and Osborn (2001) report on a study which established that Grade 4 learners who scored low on fluency measures also scored low on comprehension. In the African context Pretorius and Spaull's (2015) study with Grade 5 ESL learners in South Africa attested to a strong relationship between ORF and reading comprehension. Likewise, Piper, Schroeder and Trudell's (2016) study in Kenya showed a relationship between ORF and RC; although scores in both languages on both measures were poor,

the learners in their study read slightly more fluently in English than in their L1 but their RC scores were slightly higher in their L1 than English. Thus, fluency is a reading skill critical to understanding a text (Cook 2003; Ambruster et al. 2001; Piper et al. 2016; Pretorius & Spaul 2016). It also affects the motivation to read which results in low opportunities for practice thereby negatively impacting on the overall reading process (Stanovich 1986).

There are English studies in L2 contexts which show average ORF scores for lower primary school grades which might be relevant to the African context. A study with Latino Grade 2 and 3 ESL learners provide some ORF benchmarks for L2 learners, ranging from 53WCPM to 75WCPM respectively (Al Otaiba, Petscher, Williams, Pappamihiel, Dyrland & Connor 2009). Jimmerson, Hong, Stage and Gerber's (2013) study with Latino Grade 1 to 4 ESL learners established average ORF scores for both L1 and L2 learners across the four grades; 60:40; 101:74; 90:63; and 146:119 WCPM respectively. The findings by Jimmerson et al. (2013) indicated that the L2 learners were generally slower than their L1 counterparts by about 25 WCPM even after explicit and systematic instruction; however, the ORF scores rose markedly at each grade level, suggesting that the gap might become smaller as learners progress to higher grades. In addition, if systematic instruction starts early there is potential for better results. However, compared to the studies referred to earlier in South Africa and Kenya the average ORF scores by AL Otaiba et al. (2009) and Jimmerson et al. (2013) show that the learners in the African context have serious challenges with reading fluency which in turn affects reading comprehension. A recent reading comprehension study by Liswaniso (2021) with Namibian Grade 5 L2 learners showed that the learners were slow readers. The study showed that with explicit and systematic instruction in both fluency and reading comprehension learners are bound to improve, while comprehension intervention without fluency is less effective. This study suggests that learners should receive systematic fluency instruction right from the beginning so as to provide them with a strong reading literacy foundation.

2.2.5 Reading comprehension

This is the most important component of the reading process. Reading comprehension is the essence of reading. The RAND Reading Study Group (RRSG) (2002:11) describes reading comprehension as “the process of simultaneously extracting and

constructing meaning through interaction and involvement with written language.” Snow (2010) points out that the definition signals the importance of a number of key features of comprehension which include accurate decoding of print, meaning construction through inferences and active engagement of a motivated reader. This implies that reading comprehension is a process which involves the interaction of a number of elements, from the basic processes of decoding to complex cognitive processes which lead to meaning construction. Klinger, Vaughn and Boardman (2015:2) concur that “reading comprehension is the process of constructing meaning by co-ordinating a number of complex processes that include word reading, word and world knowledge and fluency.” The RRSB (2002) further points out that this process involves the *reader* who is carrying out the comprehending activity, the *text* which is the object of comprehension and the *task* which is the activity being carried out. Each of these elements brings to the reading comprehension process a number of other facets which interact to bring about successful comprehension of a text.

2.2.5.1 The reader

Reading comprehension entails the reader, the one who actively interacts with the text and brings a host of characteristics which include the reader’s ability to decode, vocabulary, prior knowledge and motivation among others. These characteristics facilitate or impede the comprehension process. Snow (2002) affirms that the reader has to have cognitive, motivational and linguistic capacities which enable text comprehension. Of these characteristics decoding has already been discussed since it is a key component of reading, so the rest will be discussed below.

Motivation

Conradi, Jang and McKenna (2014:156) define motivation as “the drive to read resulting from a comprehensive set of an individual’s beliefs about attitudes towards and goals for reading.” While motivation on its own does not bring about RC, it is the fuel that lights the fire and keeps it burning (Ontario Education 2003). This suggests that motivation is a force which spurs learners to desire to engage in reading and also helps them sustain the reading activity, both of which develop RC. Lack of this inner drive impacts negatively on learners’ reading and ultimately on learning and achievement. Reader motivation thus plays a critical role in reading comprehension.

Motivation is multifaceted; it entails quite a number of constructs which include some of the following factors; self efficacy, curiosity, involvement, persistence, competition. Although all these contribute to reading comprehension (Gamble, Malloy & Mazzon 2009; Guthrie, Coddington & Wigfield 2009), I am not going to discuss them all. Instead, I will focus on two forms of motivation, namely intrinsic and extrinsic motivation. Intrinsic motivation refers to an inner drive to want to do something; in reading, it can manifest as curiosity, involvement, persistence and competition (wanting to be better than average), resulting in reading for enjoyment and interest. Extrinsic motivation entails doing something because it leads to a separable outcome (a reward (like praise/pleasing the teacher) or avoidance of punishment (not wanting extra reading time or being in the weak group) (Kirchner & Mostert 2017). While extrinsic motivation has a role to play, especially in the early stages of learning (getting a star on one's forehead for reading well can be a great motivator in Grade 1), scholars concur that intrinsic motivation is more desirable and influential than extrinsic motivation in the long term because it operates from within the learner, it is learner driven. An intrinsically motivated learner reads more than an extrinsically motivated one and as a result achieves better results (Kirchner & Mostert 2017). Since an extrinsically motivated reader is driven by external factors, when the reward or punishment is not present then there is less or no effort, which affects reading progress.

Scholars concur that motivated readers read more, become better readers and achieve better in reading (Kirchner & Mostert 2017; Conradi et al. 2014; Guthrie, et al 2009). A study by Kirchner and Mostert (2017) with Namibian Grade 7 learners showed that there was a positive but weak correlation ($r= 0.27$) between reading activity and reading motivation, and a similar correlation ($r= 0.19$) between reading motivation and reading achievement/reading comprehension; the three were found to be interdependent. Their findings are consistent with what other scholars have found in the USA and Canada, where most studies on reading motivation have been carried out (Sanford 2015; Guthrie et al. 2009; Hermosa 2002), namely that a relationship exists between motivation and reading comprehension. Highly motivated learners put more effort into reading and they also tend to read more while those who have low motivation tend to shun reading which some scholars refer to as work avoidance (Conrad et al. 2014; Guthrie et al. 2009). It was also noted from research that motivation is also influenced by reading proficiency, implying a bidirectional relationship, where learners who are competent in

reading are the ones who read more while those with reading difficulties tend to shun reading (Karahan 2015, Guthrie & Klauda 2014; Ahmadi, Ismail & Abdullah 2013). Thus, motivation cannot compensate for poor decoding skills, though it plays an important role in enhancing competent learners' reading skills and comprehension as they read more. It is an indirect factor compared to decoding or fluency, which have a direct effect on reading comprehension.

Since reading is a learned skill that improves with practice, it is imperative that teachers make sure that learners successfully decode and are fluent while at the same time explicitly motivating learners and availing a variety of reading material to them so as to develop a reading habit or mindset. As long as there are some learners who cannot read proficiently it is difficult to get them motivated to read because reading is too effortful. Learners should be given the latitude to choose what to read and normally they prefer reading texts which interest them, ones which they can also easily relate to and understand. Here too teachers and parents should be reading role models so that positive reading habits and attitudes are nurtured among children right from early stages of development.

Although motivation plays an important role in the process of reading, in the current study this variable was not measured as the focus was more on reading fluency and reading comprehension.

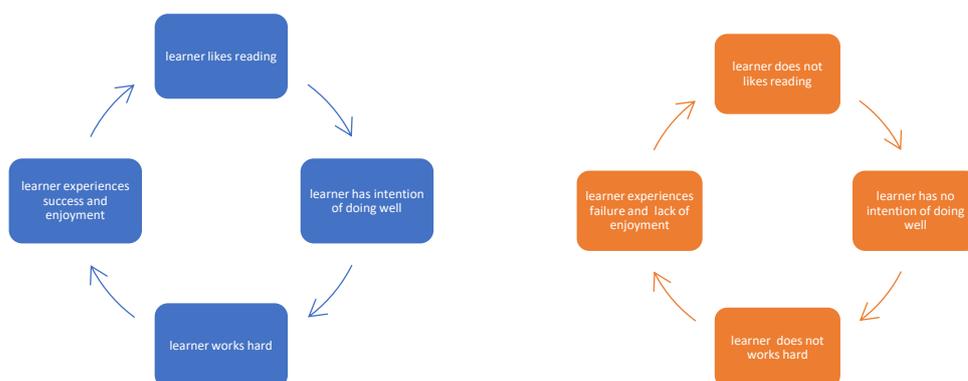
Learner attitude

Tse et al. (2006) describe attitude to reading as positive or negative feelings that students have about reading. Attitude to reading is also an important factor in the development of reading literacy. It is learners' attitude to reading which determines their motivation to read: if learners have a positive attitude towards reading (even if they have challenges) it helps them persevere in reading and as a result get exposure to texts and that ultimately improves their performance, while negative attitude affects even a typical learner because attitude affects practice/behaviour. Kush, Watkins and Brookhart's (2005) study shows that reading attitude influences reading performance. Learners' reading attitude is influenced by a number of factors which include self-efficacy and the people around them. Self-efficacy refers to people's beliefs that they are capable of performing a particular task regardless of the skills they actually possess (Bandura 1986). Self-efficacy is a motivational construct, a topic which has already

been discussed. These beliefs are important requirements for competent functioning in reading; if a learner has strong self-efficacy towards reading it means that particular learner will be motivated to read; even when texts are challenging the learner will persevere and as a result tend to read more. The opposite happens with learners who believe that they are not capable and who avoid reading, a response that ultimately impacts on overall academic performance. So self-efficacy affects the choices that learners make, depending on which side their self-efficacy is skewed.

Parents and teachers with a positive attitude to reading tend to pass it on to their children (Tse et al. 2006). Parents and teachers who read in the presence of their children, who talk positively about books and reading and also assist children with their reading tasks instil positive attitudes among the children. In contrast, parents and teachers who have negative attitudes towards reading also negatively impact on their children’s reading attitudes. In the end, children with positive attitudes read more and benefit more than the poor readers who might get to the extent of shunning reading completely. To summarise the discussion on attitude and reading performance I adopt Nisbert and Williams’ (2009) positive and negative cycles of attitude to reading. Learners with a positive attitude like reading; they have the intention to do well so they exhibit positive behaviour towards reading for example reading a variety of books and visiting the library. Such learners then experience success with their school work, their vocabulary and world knowledge grow. The success in turn improves the learner’s attitude even more and the cycle goes on (Nisbert and Williams 2009), as shown in Figure 2.1 below. The blue cycle represents a learner with a positive attitude while the red one shows what happens to a learner with a negative attitude towards reading.

Fig 2. 2: Positive and negative attitude cycles



Learners who dislike reading have little or no intention to read as a result they spend little time reading, i.e. they read less or avoid reading and then experience failure (do not achieve fluency in reading, vocabulary does not improve and academic performance declines) which in turn produces more negative attitude and the cycle continues. This relates very well with Stanovich's (1986) Matthew effects where the rich get richer and the poor poorer in reading literacy development.

Background knowledge

Reading comprehension is also influenced by readers' background knowledge or prior knowledge and experiences. Brandao and Oakhill (2005:688) describe background knowledge as "the sum of what a person knows about the content of a text." Basically, it refers to the life experiences and knowledge that a person possesses and which can be utilised when engaging in a particular text. The knowledge can be categorised into two kinds: general world knowledge and specific domain knowledge (Narvaez 2002; Huang 2009). General world knowledge refers to real life experiences that children acquire as they interact with others, family and the community while specific domain knowledge is usually acquired through studying or interest in a specific field, for example knowledge about some sporting activity, information technology or farming, and it is the one which distinguishes experts from novices. For example, a medical report might not be as understandable to an ordinary person as it is to a medical practitioner because of the type of specialist knowledge needed to facilitate the text comprehension process.

Scholars agree that background knowledge is critical to understanding texts during the reading process because the more you know about a topic the more you comprehend new information about it (Smith 2012; Brandao & Oakhill 2005; Alfassi 2004). When reading about the effects of World War 1, the text might not be very explicit about the devastating effects of the war, it might present the effects in point form but the readers' background knowledge about wars will help inform their understanding of how disastrous the effects were. So, background knowledge brings in the necessary elaboration needed to comprehend a text better; learners with background knowledge can more easily make inferences and also guess the meanings of unfamiliar vocabulary in the text, which in turn improves text comprehension (Sedita 2018). Again, it takes less effort on the part of the reader to read and comprehend a text when ideas are known.

However, when texts are inconsistent with readers' prior knowledge readers are likely to understand the text poorly. Learners differ greatly in terms of the breadth and depth of their background knowledge, and competent readers can use their reading skills as a tool to acquire more knowledge on topics about which they previously had little knowledge.

Brandao and Oakhill's (2005) study showed that young children relied on background knowledge to understand a text. To help learners acquire background knowledge teachers should expose learners to a variety of texts and general life experiences which they acquire through engaging in activities at school, home and community and show them how to engage their background knowledge when reading. The activities that they engage in class should activate their prior knowledge because if it is not activated learners will not benefit from this rich resource.

Inferencing

Inference making is another factor central to the overall process of reading comprehension. When authors write texts, they leave out a lot of detail, so to meaningfully construct meaning from a text the reader should expand the provided information by making inferences. According to Hall and Barnes (2017), inference making refers to establishing appropriate, meaningful connections between separate pieces of information literally stated in the text and the relevant background knowledge that the reader has. Kispal (2008) describes it as the ability to use two or more pieces of textual information to arrive at an implicit meaning. This is what is generally referred to as reading between the lines. Scholars refer to two types of inferences but may use different terms to describe them. Cain and Oakhill (1999) refer to *text-connecting* and *knowledge-based inferences* but the following terms are also in use respectively; necessary/coherence and elaborative inferences; text-to-text and background-to-text inferences. For this study I will adopt the terms text-connecting and knowledge-based inferences.

Text-connecting inferences are also referred to as inter-sentence inferences (Cain & Oakhill 1999) or referential inferences (Hall & Barnes 2017). The generation of such inferences requires integration of different pieces of literally stated information from within the text to establish cohesion between sentences (Hara & Tappe 2016; Kispal 2008; Cain & Oakhill 1999). This includes anaphor resolution, straightforward

inferences between adjacent units and inferring word meanings. In anaphor resolution learners are required to connect a noun/ noun phrase with its referent, for example:

Sipiwe and her mother went to collect eggs from the hens. Sometimes they took them from underneath the hens...

The reader should be able to connect *they* and *them* to their respective referents i.e. *Sipiwe and her mother* and *eggs*. Of course, the information is explicitly stated in the text but if the reader fails to make the necessary connections there would not be text cohesion and text meaning will be lost.

Straightforward inferences help to bring out the implied meaning in the sentences as well as to show relationships such as causality, for example:

...a rush of heat blew against Sifile's cheeks. He stepped back and mopped his sweating face.

The reader should infer that the *heat* made Sifile's face sweat and that is why he *stepped back and mopped his face* which also means that the fire was strong and dangerous. The reader can also infer meanings of words drawing from the larger context, for example; *the fire was steadily advancing towards his father's land. It was gobbling up the small bushes as it advanced.* An L2 Grade 4 learner might not know the meaning of *gobbling* but reading through the above sentence might help the reader make a meaningful guess about the word's meaning. So, by doing all of the above the reader connects and integrates textual information with both literally stated and unstated information necessary for textual cohesion and comprehension.

The other type of inferences is knowledge-based or gap filling inferences. Cain and Oakhill (1999) point out that such inferences involve both understanding the explicit meaning of the text and a heavy application of background knowledge in order to achieve implicit comprehension of the text and to be able to draw conclusions. Background knowledge entails the reader's experiences, information from other texts previously read or even earlier sections of a text currently being read which are already in long term memory. All this is activated or accessed and then connected to the text in question at the moment. Hara and Tappe (2016) argue that this kind of inference embellishes story content and amplifies a story's context, providing a fuller representation of an event. This suggests that through this type of inference the mental

representation becomes larger than the actual text; it is an expanded version which is more elaborate and that is why other scholars refer to it as the elaborative inference. For example:

It took full four hours, and when the last flame had been put out, the men walked wearily home, dragging their wet sacks behind them.

From the above text it can be inferred that putting out the fire was no easy task because it took a long time to do so and also, since no women or children are mentioned in the text, it required strong and courageous men to do so. Walking wearily home again conveys the extent of the exhaustion caused by the effort exerted in fighting the fire. Readers should draw from their background knowledge about veldt fires as well as cultural knowledge about gender roles and connect it to the text to construct a fuller, more elaborate picture of the idea being presented by the author.

Cain and Oakhill (1999) note that skilled and adult readers effortlessly make inferences during reading while young and struggling readers have problems making inferences. This suggests that learners should be taught how to make inferences in the early school years so that they can maximise their comprehension of texts. Srisang (2017) asserts that as children grow older their ability to make inferences qualitatively and quantitatively changes. In his study on the teaching of inferencing skills in Hong Kong, Lee (2013) showed that direct instruction yielded positive results in inference making. In their study with 7-8-year-old skilled comprehenders and less skilled comprehenders, Cain, Oakhill, Barnes and Bryant (2001) found that children with comprehension deficiencies had challenges making inferences, both text-connecting and knowledge based. Their study also showed that inference ability was a unique predictor of reading comprehension at multiple developmental stages and that it is a plausible cause of reading ability.

Metacognition

Metacognition is another reader characteristic which critically contributes to reading comprehension. Baird (1990:184) defines metacognition as “the knowledge, awareness and control of one’s own learning.” Ambruster et al. (1983) describe it as the knowledge and control one has over one’s thinking and learning. This suggests that the learner is knowledgeable, conscious and monitors his/her thinking processes. Applying it to reading means that a skilled reader actively engages with the text and monitors his/her

understanding of it, making sure that successful comprehension takes place by bringing in strategies which help enhance comprehension, for example by activating prior knowledge, rereading, pausing to reflect on information or even self questioning among other things. Wilson and Conyers (2016) describe a reader with strong metacognition as a self-directed reader.

A reading activity should be purposeful and this will direct the learner's attention, thereby enhancing learning from the text. Even if a text has challenging vocabulary or complex syntax the reader has a purpose and is bent on fulfilling it, so s/he will engage in various strategies to succeed (Cubukcu 2008). In their study involving 60 ESL students in Kazakstan, Zhussupova and Kazbekova (2016) found that students who were learning about metacognition and working on comprehension passages to practise what they learnt outperformed the control group who did not show any improvement from the exercises which they were given without explicit teaching.

Making use of strategies to enhance comprehension or to remedy comprehension failure is part of metacognition. Karbalaei (2011) affirms that metacognitive strategies emphasise the monitoring and regulative mechanisms that readers consciously use to enhance comprehension. These strategies might be fix-up strategies (e.g. rereading) or study strategies (e.g. note taking, summarising). Cubukcu (2008) argues that through metacognitive strategies, a reader allocates significant attention to controlling, monitoring and evaluating the reading process. This suggests that the reader is in charge and fully aware of what is happening so that when he/she misses some point it will be soon be detected and provide a way to rescue oneself so that reading goes on successfully. This is what successful readers do, but poor readers are not aware of this or even how to implement it. Because successful comprehension does not occur automatically, teachers can enhance skilled reader characteristics by modelling and providing explicit instruction of metacognitive strategies during the learning process (Zhussupova and Kazbekova 2016; Cubukcu 2008).

In sum, the reader characteristics discussed above play an important role in the reading process. A learner who has challenges with reading may have challenges with one or more of these reader characteristics.

2.2.5.2 The text

The text is the physical or electronic source of the content which the reader interacts with during the process of reading. Awareness of text elements like composition, structure, content, vocabulary, discourse style and genre are essential for text comprehension. These and other elements interact with the reader's prior knowledge in order to enhance text comprehension.

Knowing the genre (narrative, information, or persuasive) helps readers in their quest for comprehension. In this study RC was assessed based on narrative texts which are typical of foundation phase texts. A narrative text is a type of writing that relates a series of events and includes both fiction (novels, short stories, poems) and nonfiction (memoirs, biographies, news stories) (Sallabas 2013; Seinjost & Thiese 2010). The narrative genre is used to sequentially tell the events within a story (typically a problem and its resolution) which makes it easier to read and better to understand compared to other genres. It must also be noted that the stories that children listen to during their early years at home or in preschool and later, follow a typical format (setting, characters, problem and resolution) which makes narrative texts more familiar to young learners. Even the content in narrative texts in the elementary stage tends to be familiar, everyday content (Steinman, LeJune & Kimbroug 2006) which helps them successfully engage higher order comprehension skills like predicting, making causal inferences and character analysis which is essential for reading comprehension (Seinjost & Thiese 2010).

Vocabulary is also an important aspect of text characteristics because it impacts reader comprehension of a text. Narrative texts for young readers contain a high percentage of high frequency words (§2.2.6) which learners should be familiar with as early as possible to avert comprehension challenges later. If a text has more complex vocabulary comprehension will be more challenging (Hiebert & Kamil 2005). This emphasises the need for the acquisition of a large vocabulary to facilitate comprehension. Studies have shown that extensive exposure to story book reading, storytelling and rich oral language activities enhance vocabulary development during the early years of schooling (Biemeller & Boote 2006; Nagy 2005; Hart & Risley 1995). Vocabulary development will be discussed later in §2.2.6.

2.2.5.3 The reading activity

The third component is the activity or task of reading which entails the purpose of reading, processing and the consequences of reading. The purpose of reading can be internal, for example reading for enjoyment, or external such as reading to learn as in the school context. Snow (2002) argues that where the purpose is external the reader might lose interest in the reading activity but where it is internal the reader intensifies reading even when a text is difficult, leading to further vocabulary development and text comprehension. However, reading in the school environment is generally externally driven because learners are expected to read storybooks, novels and their textbooks and evidence of reading is displayed in the reading and writing tasks that they are given in form of formative and summative assessment. Even though this is the case in the learning context learners should purposefully develop an inner drive to read their textbooks in order to succeed.

Task definition, goal setting and planning are critical elements of the reading activity. They help the reader achieve meaningful comprehension, for example when readers find that they are not meeting the demands of the task then they readjust their reading activity, maybe by changing the reading strategies or reading speed to suit the defined task and its goals. Engaging in such metacognitive mental processes results in better text comprehension.

The reading task also has beneficial consequences for the reader. Smart and apt reading strategies help improve student reading comprehension and even low achievers who practise these can also benefit immensely (Ismael, Petras, Mohamed & Eng 2015). Reading activities help readers increase in knowledge as well as the ability to solve problems where the reader applies the read information to appropriate situations (Valencia, Pearson & Wixson 2011). The increase in knowledge concurs with Stanovich's (1986) 'Matthew effect' where the rich get richer due to more reading and more knowledge as a result of more reading.

In sum, reading comprehension builds upon decoding skills which are necessary but not sufficient, but also includes thinking skills: "whereas decoding involves producing a spoken analogue of printed language, comprehension involves producing a thought analog of printed language." (Kibui 2012:15) Decoding has its own linguistic role in reading while comprehension brings in the cognitive dimension. The two work together

to bring about successful reading comprehension which is the ultimate goal of every reading activity: they cannot be disentangled; they are interrelated (Clarke, Hulme & Snowling (2013).

The process of comprehension has a macro developmental aspect. This means that reading comprehension changes as the reader matures, cognitively develops and gains more experience with more challenging texts and direct instruction so that reading becomes a tool for learning (Espinoza 2010). When the conditions are not favourable the process is also negatively affected. More on this will be discussed in §2.6 on the stages of reading development.

2.2.6 Reading instruction

Reading is a skill that most children learn during their early years of schooling. As already mentioned, early success in the acquisition of reading skills is very important for later success, and failure in learning to read early in school has serious repercussions. Reading is a learned skill and early primary school is a critical period for children to develop reading skills required later in life (Ding, Richardson & Schnell 2013). However, research reveals that reading has not been taught explicitly as a skill in many low and middle-income countries (Kim, Lee & Zuilkowski 2020).

Following the cognitive-linguistic explanation of reading, the teaching of reading can be successfully done explicitly/directly through the gradual release model (*I do, we do, you do*). Teachers need to provide direct/explicit instruction on the key components that make up the reading process, viz; phonemic awareness, phonics, fluency, vocabulary and comprehension (National Reading Panel 2001). Explicit instruction can be adapted to learners' capabilities, the text being read, the purposes of reading and the context in which reading takes place. This makes it possible to support learners with different needs accordingly even in a whole language classroom (Dahl & Scharer 2000). However, this study is not directly about reading instruction per se though it is impossible to focus on reading literacy development without including it.

In contrast to explicit instruction, the whole language approach purports that children naturally learn to read through exposure to rich literacy experiences (Smith 1971; Goodman 1967). The proponents of this approach do not support the teaching of isolated skills or breaking language into its component skills, for example phonics.

They argue that through experience with print children deduce knowledge of letter-sound relationships. As a result, basal readers (i.e. graded texts with stories that are meant to teach phonics/decoding skills) are not the preferred texts when using this approach, instead trade books (i.e. general storybooks which are not meant for the teaching of decoding skills) are recommended because they are believed to be authentic, providing children with real experiences (Sears 2010). The approach emphasises that children should learn by doing the actual reading activity. Though whole language proponents argue that reading, just like the acquisition of speech, occurs naturally there is a large body of scientific research which shows that reading does not naturally develop (PISA 2013; National Reading Panel 2000; National Association for Education of Young People 1998; Gough & Hillinger 1980). Castles, Rastle and Nation (2018) point out that a child exposed to a rich spoken-language environment will learn to understand and produce spoken language because they are genetically programmed to do so, but the same cannot be said about written language, which is a recent invention in the history of humankind. (Kim et al. 2016; Ryder, Burton & Silberg 2006). The whole language approach is more applicable to contexts where there is access to rich language and material resources and where parents have high levels of literacy. While the whole language approach has been adopted in the teaching of English which has a lot of short words, it is not appropriate for learning to read in agglutinating languages with their complex morphology and long words, for example in Finnish and the Nguni languages. It would be a difficult if not an impossible task for 6-year-olds to work out the code on their own, especially if they live in print poor communities.

Even though it has been established that some children have grasped the basic concepts of reading through emergent literacy by the time they enrol for formal schooling (Huang 2014; August & Shanahan 2008), explicit instruction is still needed. Emergent literacy refers to the early skills exhibited by children even before enrolling for formal schooling and these include the knowledge and abilities related to the alphabet, phonological awareness, symbolic representation of speech and communication through writing (Rohde 2015). Written language does not mean anything to children from print poor environments because they do not realise that it is an abstract symbolic system unless they are taught that the marks they see on paper represent individual sounds and words they speak.

There have been several studies in the past few decades that provide evidence that an understanding of the letter-sound (or grapheme/phoneme) relationship in written language is facilitated through explicit teaching (Paige & Rupley 2018; Castles et al. 2018; Byrne 1992) In fact explicit instruction helps in all components of reading. Lyon and Chhabra (2004) argue that failure by some children to learn to read shows that reading is a monumental task which is not acquired naturally, easily and incidentally, it requires a lot of effort, careful planning and instruction. Explicit instruction helps in all aspects of reading – decoding, fluency, vocabulary and comprehension. Kim et al. (2020) assert that because reading is not explicitly taught in low and middle-income countries, the majority of children fail to read even after years of reading instruction.

While both approaches can contribute to reading acquisition in different ways, my study focuses on the link between decoding skills (as measured by oral reading fluency) and RC in a sample of L2 learners, most of whom are from disadvantaged backgrounds where resources are limited.

2.2.7 Vocabulary knowledge and its relationship to reading

Vocabulary knowledge refers to the sum of words used by, understood by or at the command of a person (Pikulski & Templeton 2004). Vocabulary knowledge goes beyond knowledge of word meaning, it also includes knowing the form (what it looks/sounds like and its spelling) and use of words (Nation 2013). Form refers to the spoken and written aspect and the word parts in the word while meaning refers to understanding the form-meaning relationship, concepts and referents that a word signifies and its association with other words. Use refers to knowing the grammatical functions (nouns, verbs, etc), inflections (*succeeds, succeeded, succeeding*), derivations (*succeed, success, successor, succession, successful(ly), unsuccessful(ly)*), collocations of a word and the constraints on the use of the word. Pretorius and Stoffelsma (2017) give a clear illustration of the above with the word *light* (*lighten, enlighten, lightly, enlightenment; to see the light, a light wind, light blue, a light weight, etc.*). The above examples show how a word can be used in different contexts bringing out different forms and meanings. Thus, word knowledge entails competence in different aspects of word knowledge and is multi-dimensional (Kumar and Dhanavel (2017).

Hu and Nation's (2000) study with 66 ESL students from different backgrounds (Thai, Chinese, Indonesian and German among others) found that vocabulary knowledge was

critical for comprehension. It is important to note that vocabulary development is critical even among L1 speakers though this study mainly focuses on L2 English learners. Readers have to know about 98% of the words in the text for meaningful comprehension to take place. The authors concluded that the density of unknown words in a text adversely impacts text comprehension. Scholars agree that it is possible to communicate in a language with minimal grammatical knowledge, but without a solid knowledge of the vocabulary there is no communication (Kumar & Dhanavel 2018). Thus, vocabulary helps to transmit the message even where grammar is incorrect.

Vocabulary occurs in oral and written forms (Hiebert & Kamil 2005). Children acquire words orally in the first five years of their development. This vocabulary form is critical for the successful transition to literate vocabulary once a child enters formal schooling. Literate or print vocabulary refers to words whose meaning is known when an individual writes or reads. Most children acquire literate vocabulary upon entering school. In the initial stages of learning to read, children know more words orally than they can read. Learners with deficiencies in oral language skills encounter challenges when learning to read.

Vocabulary knowledge holds a critical place in reading comprehension. Learners who fall behind in vocabulary development are at greater risk of reading failure (Coyne, McCoach & Knapp 2007). Kamil and Hiebert (2005) state that vocabulary knowledge is the bridge between the word level processes of phonics and cognitive processes of comprehension. Similarly, Perfetti (2009) states that vocabulary has a central role between decoding and comprehension. Thus, decoding and comprehension are brought together by vocabulary in order for meaningful reading to be achieved.

2.2.7.1 Vocabulary Frequency levels

Frequency levels refer to the groupings of word families according to how often a word appears in normal usage of the language (in this case English). The frequency levels are arranged in sets of 1,000-word families (i.e. inflected and derived words from a root, as in the examples related to *success* above) based on the British National Corpus (BNC) and the Corpus of Contemporary American English (COCA).

A corpus is a collection of (digital) texts compiled as written texts or a transcription for recorded speech (Crystal 1992), meant to address a particular purpose. The BNC is a

collection of over 100 million British English words, of which 90 million words are written and 10 million words are spoken texts. The BNC includes material from thousands of sources (fiction, biographies, science, academia etc) which makes it large and balanced enough to form an extremely robust empirical basis for research. The Corpus of Contemporary American English (COCA) is another corpus which contains 450 million words (Schmitt, Cobb, Horst & Schmitt 2015). It is equally divided among five genres/registers (spoken, fiction, popular magazines, newspapers, academic journals) and is regularly updated. The BNC-based word list has been updated using COCA frequency information. These corpora and others play a critical role in vocabulary studies.

To account for lexical thresholds among learners, scholars use frequency levels which are based on established corpora. Lexical thresholds refers to “the minimal vocabulary necessary for adequate reading comprehension” (Laufer & Ravenhurst-Kalosvki 2010:15). There are different ways of distinguishing frequency levels. Nation (2012) identifies three frequency levels; high, mid and low:

- High frequency words are the most common words in a text; they are frequently used in various contexts and the level has around 3,000-word families (Nation & Anthony 2013; Laufer & Ravenhorst-Kalosvki 2010). These are words that occur in everyday conversations and include function words like *in, for, the, of* and common, everyday content words like *girl, house, forest*. These words cover about 80% of a text and most L2 learners make progress with this level of vocabulary. Nation (2001) asserts that teachers should ensure that high frequency words are well known by students in order to enhance fluent reading and better comprehension of texts. Although knowledge of the 3000-word families may be adequate for everyday conversations, it is not sufficient for understanding written text.
- Mid frequency level contains the 4000-9000-word families and academic words fall within this category. Mid frequency words occur less frequently in ordinary conversations but are common in fiction and nonfiction texts. This category also contains about 570 core academic words that occur across different disciplines, like *policy, phase, adjusted, perspective, generate* (Nation (2012). The percentage coverage of academic words in academic texts is around 11%

(Coxhead 2000), a very small contribution of words common in different kinds of academic texts, but learners who do not know these words are severely hampered in understanding their textbooks properly. Academic words are learnt through reading and explicit instruction (Pikulski and Templeton 2004).

- The third level is referred to as the low frequency level and this covers 10000-word families and beyond (Schmitt & Schmitt 2012). Technical words fall within this category; these are words that are very closely related to a particular field or profession for example *radioactive*, *isotopes*. The words are unusual and are normally used by discipline/field specialists and students studying these subjects. They contribute about 5% text coverage in academic texts. Dodigovic (2005) argues that if they are more than 5% in a text they make the message unintelligible, hampering learning of both vocabulary and content.

Everyday oral conversations and social interactions tend to use a small number of words from the low frequency and upper mid frequency levels, while written texts tend to use words from a range of frequencies. Research has shown that English learners need to understand around 98% of words in a text for adequate comprehension of a text (Schmitt, Jiang & Grabe 2011; Nation 2006). It is therefore critical that learners be exposed to the mentioned frequency levels through independent reading and explicit vocabulary instruction in order to enhance learning.

2.2.7.2 Receptive and productive vocabulary

A distinction is made between receptive and productive vocabulary. Nation (2001: 25) defines receptive knowledge as “the ability to perceive a word while listening or reading and to retrieve its meaning.” These are words that are often less frequently used and that individuals do not typically or spontaneously use. When learners encounter such words, they can recognise them but may have a vague sense of their meaning, for example *radioactive*, *isotopes* or *amino acids*. An individual with no Physics or Chemistry knowledge can recognise the word forms and may infer the contextual meanings upon meeting them in a written text but may not understand their scientific meaning. Nation (1990) states that by age 5 children should have a receptive vocabulary of at least 1, 528word families, by age 10 at least 7,020, age 15 at least 12,000-word families in their L1.

Productive vocabulary is that which an individual uses when speaking or writing and is also called expressive or active vocabulary (Pikulski & Templeton 2004). According to Oberg (2012: 26), “productive knowledge entails being able to use the word to express its meaning, being able to say and/or write the word, and being able to use the word correctly in an original sentence.” These are familiar, well known words that are frequently used. The acquisition of productive vocabulary is a gradual process which is facilitated by exposure to contexts which promote a lot of practise. Maskor and Bharudin (2016) say productive vocabulary enhances receptive vocabulary, but an individual may know a word but be unable to use it, so once a word is available in the productive vocabulary domain it automatically becomes part of the receptive domain and that is why receptive vocabulary is larger than productive word knowledge. Furthermore, most words that make up an individual’s vocabulary are initially acquired receptively through listening. By the time children enter school they would have acquired the majority of the high frequency words in their home language used in oral contexts.

2.2.7.3 Vocabulary breadth/size and depth

Vocabulary development is both quantitative (the size/number of words known increases) and qualitative (knowledge of word meanings and their relationship to other words deepens) and as children mature their vocabulary also increases, at least for children without linguistic disabilities. Vocabulary size is one of the factors which militate against L2 learners who may only encounter the L2 (in this case English) for the first time in their lives at school. If they are exposed to the L2 in the home it may be minimal and in contexts which do not promote academic language development. As a result, L2 learners do not have as strong a foundation as their L1 counterparts, which negatively affects reading development and learning in general. However, receptive vocabulary can be improved if effective intervention measures are employed in the teaching and learning process, and if children read a lot it helps enhance vocabulary knowledge and development (Logan 2012; Cunningham & Stanovich 2001; Stanovich 1986).

Vocabulary size is based on the number of words readers can recognise or use when reading, matching words with definitions, checking known words in a list or completing cloze tasks (Cervatiuc 2007). A well-known standardised vocabulary size test is the vocabulary levels test (VLT) developed by Nation (1990). The VLT is based on word

frequency levels using a modified cloze format. It gives a fairly accurate measure of vocabulary size and to what extent learners read. Vocabulary size correlates with reading comprehension; having a big vocabulary helps one become a better reader which in turn can make reading more enjoyable which provides an impetus to read more and more, leading to the acquisition of new words which make one 'richer' (the Matthew effect referred to by Stanovich 1986). On the other hand, those learners with smaller vocabularies struggle to comprehend texts, get demotivated, start reading less and less, fall behind on fluency because they lack practice and, in the end, overall learning is adversely affected.

Dabbagh and Enayat (2017) describe vocabulary depth as the quality of word knowledge or how well a word is known. It relates to a word's pronunciation, syntactic and semantic relationships with other words, including collocations, synonyms, antonyms and hyponyms (Kumar & Dhanavel 2018). It plays a critical role in learning contexts; it increases fluency, broadens vocabulary and allows for deeper comprehension which enhances learning because low vocabulary development is a risk factor for reading and poor academic achievement (Logan 2012). Vocabulary depth develops as learners encounter a wider range of words in texts, moving from simple texts used in the early grades to more linguistically complex academic material in upper grades.

2.2.7.4 Vocabulary development

Vocabulary development is enhanced through both implicit learning and explicit instruction (Logan 2012 Pretorius & Stoffelsma 2017; Kamil & Hiebert 2005). Implicit vocabulary learning (also referred to as incidental vocabulary learning) refers to words that are 'picked up' through exposure to reading and listening and not conscious learning. During their early years of development children listen to adults and peers talking or reading stories to them, they engage in conversations and watch television. All these activities expose children to words which facilitate implicit vocabulary learning. Though implicit vocabulary plays a critical role in vocabulary growth many children do not have access to linguistically rich experiences (rich oral language experiences and availability of cognitively stimulating resources and activities). The richer the language encounters, the richer the vocabulary development. Children with average or above average verbal ability enter preschool knowing between 5 000 -10

000 words³ while some enter with far less (Blachowicz, Fisher, Olge, and Watts-Taffe 2006), most of which are acquired incidentally. Children who know fewer words are most likely to experience challenges with learning to read and with comprehension, given the direct connection between vocabulary knowledge and comprehension (Logan 2012). Poor vocabulary affects both listening and text comprehension.

In their longitudinal study, Hart and Risley (2003) found that welfare parents used about 616 words per hour, middle income parents used 1 251 words per hour while high income parents used 2 153 words per hour when interacting with their children. Children from the high-income category were exposed to about three and half times the number of words that welfare dependent children were exposed to. Similarly, they found that at age 3 children in welfare-dependent families used an average of 167 words per hour; children in middle income families used 251 words and those from high income families used 382 words per hour. By the time children from the three social categories enrol for formal learning their vocabularies would be significantly different, with children from low SE families trailing behind the other two groups. The study clearly showed that over the first 4 years of children's life those from high SE would have heard many more words (45 million) than children from working class families (26 million words), while those from the welfare dependent families would only have heard about 13 million words. This constitutes a large gap which is difficult to close even where robust intervention measures are used. It is not that children from lower SES are less capable of learning words but that poverty creates barriers to learning: associated with poverty are lower levels of education, lower access to print material and lower access to a range of words used in a language especially in L2 contexts. In Africa most families struggle with poverty and as a result material resources conducive for reading development are not readily available. Coupled to this is low government expenditure on education which makes it difficult for schools to acquire adequate teaching and learning resources (World Bank Report 2018).

SE factors thus play a critical role in the acquisition and development of vocabulary. SES is usually defined in terms of parental income, occupation and education or any combination of these (Buckingham, Wheldall & Wheldall 2014). A child's SES is

³ Such figures depend on how one counts the words; Nation (2006) uses word families (*happy*, *unhappy*, *happiness*= one family) while Blachowicz et al. (2006) count single words (*happy*, *unhappy*, *happiness* = three words).

represented by that of the parents. SES can either promote or stifle early literacy development of which vocabulary development is part. Families with more economic and cultural resources are able to invest more in their children's vocabulary development by providing rich home learning environments (Tazouti & Jarlegoan 2014; Hart & Risley 2003). A linguistically rich home learning environment provides access to literacy materials like books, educational toys and computers as well as literacy related activities which include shared book reading, library and museum visits together with rich oral language experiences. Low income families may find it difficult to provide enabling environments which offer access to resources to their children which negatively impacts vocabulary development (Ngorosho 2011; Bhattacharya 2010). Of course, there might be some families from low SES who provide rich language discourse and interactions which boost language development, but this alone is not enough for vocabulary development if the children do not also have access to written language.

As Pretorius and Stoffelsma (2017) note, that children from poorer homes tend to know fewer words than their more advantaged SE peers does not mean there is anything wrong with them; a disadvantaged background can be mitigated with appropriate and effective intervention programmes. However, failure to correct the situation will result in the gap between children from low and high SES increasing and once the children's vocabulary trajectory is established in early childhood it will be difficult to change it (Hart & Risley 2003). Low vocabulary is a risk factor for poor academic achievement and once children fall behind in primary school it is less likely that they will catch up later (Logan 2012).

Explicit vocabulary learning is when a teacher presents specific instruction on target words. Explicit vocabulary instruction is essential in enhancing learners' vocabulary development. In fact, Logan (2012) argues that vocabulary has been identified as one component of reading that can be taught to narrow the achievement gap. Nation (1990) asserts that after five years of English learning L2 learners appear to know 1 000-2 000-word families which is far below what is required for adequate text comprehension. It is unfortunate that there is limited research on the volume of vocabulary uptake which young L2 language learners can achieve. Vassiliu (2001) states that some L2 learners may gain about 500 words of the 5 000 most frequent words per year from explicit teaching which is about five words per hour of formal instruction. Laufer (2010)

mentions uptake rates of two or three words per hour which is too low for meaningful vocabulary acquisition. However, this does not downplay the fact that vocabulary growth is facilitated more through implicit means when learners read independently, listen to stories being read, engage in rich conversations, participate in discussions as well as repeated exposure to the same words.

2.2.7.5 Vocabulary and reading comprehension

The relationship between vocabulary and reading comprehension is complex; scholars refer to bidirectional, reciprocal and highly correlated relationships (Wright & Cervetti 2016; Jeone & Yamashita 2014; Grabe 2009). A reciprocal or bidirectional relationship refers to a situation where vocabulary knowledge supports text comprehension and text comprehension in turn supports vocabulary learning. This is so because children with large vocabularies tend to read more and comprehend better what they read, and as a result of reading more their vocabularies are enriched, while the opposite is true for those with limited vocabularies. This is what Stanovich (1986) describes in the Matthew effects, where the rich get richer and the poor stay poor.

Wasik and Campbell (2013) also point out that vocabulary development is not only a predictor of successful reading among young children but also a predictor of success in Maths and Science. It is therefore important to make sure that young children are exposed to conducive learning environments right from the start: “perhaps the greatest tools we can give our students for succeeding, not only in their education but more generally in life, is a large, rich vocabulary and the skills for using those words” (Pikulsik & Templeton 2004:1). Even students with limited reading abilities will build vocabulary and cognitive structures if they are exposed to as much reading as possible (Cunningham and Stanovich 2001). They offer hope: “We often despair of changing our students’ abilities, but there is at least one partially malleable habit that will itself develop abilities – reading” (Cunningham & Stanovich (2001:147). Teachers, schools and homes should expose learners to a lot of reading as this has a positive effect on all learning and even on life beyond the school.

2.3 The relationship between components: theoretical views

In this section I focus on the relationship between components of reading as presented in the simple view of reading (SVR) and the Decoding Threshold Hypothesis (DTH).

The two theoretical explanations help explain interactions between the components of reading.

2.3.1 The simple view of reading (SVR)

Scholars have explained reading in quite a number of models and for this study I will focus on the SVR first propounded by Gough & Tunmer (1986) and taken further by others (Hjetland, Lervag, Lyster, Hagtvet, Hulme & Melby-Lervag 2019, Kendou, Savage & van den Broek 2009; Kirby & Savage 2008). The SVR, like Scarborough's (2001) reading rope model, is a componential model which presents the essential skills necessary for effective reading comprehension and their relationship.

According to the SVR model, reading comprehension (RC) is a product of decoding (D) and language proficiency (L) which can be represented as follows; $RC = D \times L$ (Gough & Tunmer 1986). *Product* means that two aspects of reading comprehension, namely *decoding* and *language proficiency*, are equally necessary for reading comprehension to take place. Roch and Levarato (2009) state that for reading comprehension to occur each of the variables can assume a value between zero (0) and one (1) and both values must be greater than 0. This shows that the two are essential components: without decoding reading comprehension cannot take place while at the same time being able to decode does not automatically mean ability to comprehend (Roberts 2010; Perfetti et al. 2005). According to the SVR model, decoding is based mainly on phonological and code-based abilities, (Roch & Levarato 2009; Sparks & Patton 2016). Decoding can be measured using the Early Grade Reading Assessment (EGRA) programme (Gove & Wetterberg 2011), which has a number of subtests: a timed letter-sound subtest, word and nonword subtests and a timed oral reading fluency test.

Language proficiency covers a number of language skills such as vocabulary knowledge, morphological knowledge, syntactic knowledge, and discourse knowledge; each element plays a unique role. Language proficiency can be measured by any of the areas mentioned above and in young children it is typically measured by listening comprehension and/or vocabulary skills (Ahn & Kang 2016; Sparks & Patton 2016).

In the SVR both language proficiency and decoding are necessary but on their own not sufficient for reading comprehension. The two equally contribute to successful reading

comprehension. Readers use their lower level decoding skills for successful word recognition, and integration of information gained at this level together with relevant background knowledge, inferencing and strategic processing leads to deeper understanding of a text.

There are numerous studies which show that reading comprehension correlates with both decoding and listening comprehension (Hogan et al. 2014; Florrit & Cain 2011; Adolf et al. 2006; Hoover & Gough 1990). However, the relationship between the components changes as learners progress to higher level/grades. Hjetland et al. (2019) refer to the relationship as curvilinear meaning that the relative importance of decoding and language comprehension as determinants of reading comprehension change over the course of development. Decoding is critical and takes a lot of energy during the early stages of reading development, while language comprehension becomes dominant in later years when decoding has automatized (Hjetland et al 2019; Sparks & Patton 2016; Hogan et al. 2014; Roberts 2010; Roch & Levarato 2009; Perfetti et al. 2005). As decoding and word recognition become automatized, fewer cognitive resources are devoted to decoding, and as the texts become more complex the influence of listening comprehension increases as measured by language comprehension (Hogan, et al. (2014). Following the SVR model Roberts (2010) asserts that as word recognition approaches the perfect score of 1 the importance of listening and vocabulary knowledge in predicting reading comprehension also increases. This by implication relates to the decoding threshold hypothesis which underscores the attainment of a certain decoding ability for reading comprehension to effectively take place, as shall be discussed shortly.

Kendou et al. (2009) state that the SVR informs instruction since it explains the basic components of reading. Teachers can implement its framework to identify learners' challenges and to craft intervention strategies suitable for individual learners. Researchers have found that the SVR model is also relevant for explaining the development of L2 reading skills in alphabetic orthographies (Sparks & Parton 2016) so the SRV model is deemed an appropriate framework to adopt for purposes of better understanding the process of reading in this study.

2.3.2 Decoding threshold hypothesis (DTH)

The theories which explain the skills involved in reading comprehension vary in the nature of the relationship between these skills. Wang, Sabatini, O'Reilly and Weeks (2018) point out that the SVR assumes that the relationship between decoding and RC is linear. In contrast, in Wang et al.'s (2018) DTH, this relationship is assumed to be more complex.

The DTH posits that there is a decoding threshold (i.e. a minimal level) above which the relationship between decoding and reading comprehension can be observed. The authors used two large scale studies with African-American learners from low income households to examine the relationship between decoding and reading comprehension. The first study involved 11 000 Grade 5-10 learners and was meant to examine whether the relation between decoding and reading comprehension was uniform across ability distribution and if not, whether there was a lower bound threshold of decoding ability before it could predict reading comprehension. A cut off point for decoding was drawn and learners were categorised into low and high performing RC groups in order to predict how well decoding could predict high versus low RC performance. RC performance remained low when scores were below the cut off point of 230 but rose when the cut off point was between 230 and 240. Correlations of .55 and .48 were obtained for learners above the threshold which is consistent with Garcia and Cain's (2014) study whose correlation was .48. The major finding in this study was that the relationship between decoding and comprehension was nonlinear, a result which was also found in other studies like Fuchs et al. (2001). It is important to note that the relationship was replicated by various statistical methods, showing the authenticity of the results. The study showed that the relationship was linear above the threshold (thus supporting the SVR), but below the threshold the relationship between D and RC ceases to be predictable (thus not supporting the SVR).

The second was a longitudinal study with 33 000 learners from Grade 5-9. It was meant to test whether students below the decoding threshold showed progress in their reading comprehension in the following years. Grade 5 learners above the threshold had an average of 2.9 points increase after a year, which matched very well with the cross-sectional data showing the effect of students' initial grade level on reading comprehension score. Each grade level was found to be associated with 2.78 points

higher in reading comprehension scores. Other factors like background knowledge or metacognition could not compensate for decoding inadequacy. However, the below threshold learners only showed .6 point annual growth. Furthermore, below threshold decoding was related to minimal growth in reading comprehension in the subsequent years. These learners did not show any developmental acceleration in reading comprehension.

The studies clearly showed that there is indeed a decoding threshold below which RC does not successfully occur. This finding shows the importance of decoding skills in reading comprehension as suggested by the SVR. Wang et al (2018) argue that RC interventions are not helpful if learners perform below the threshold; learners' decoding skills need to be improved in order to have positive reading comprehension gains. A study by Liswaniso (2021) with Grade 5 learners with low decoding and comprehension from Namibian schools showed that an intervention programme helped to improve both decoding and RC skills. However, Liswaniso argues that his study supports the DTH although the results of his study showed that although decoding improved, RC remained very poor, which might support the view that decoding develops faster than RC. The learners in his study had not yet reached adequate decoding levels that support comprehension.

Both the SVR and DTH are relevant to the current study, where the relationship between decoding and RC is examined (§ Chapter 5).

2.4 Kintsch's construction-integration (C-I) theory of reading comprehension

Having looked at what is necessary for reading comprehension to take place I now explore what happens during the process of reading comprehension. There are quite a number of reading comprehension theories but for this study I use Kintsch's (1988/1998) construction-integration (C-I). The theory is an extension of his earlier work with van Dijk on reading comprehension processes. The theory borrows from both bottom-up (word based) and top-down (knowledge based) processes (Perfetti & Stafura 2014).

Reading comprehension is viewed as a process that transforms written language into a meaning representation in the reader's mind (Caccamise & Snyder 2005). Basically, reading comprehension is concerned with meaning extraction and construction from

written texts. Comprehension in Kintsch's (1998) C-I model arises from an interaction and fusion of a text and the reader's prior knowledge and experiences. The process entails two phases; construction and integration (Reutzel & Jones 2014). In explaining what happens during the transformation of a text into a mental representation, Kintsch (1988/1998) states that the text is represented by propositions which are referred to as semantic units (Bachner 2007). The propositions which are directly derived from the text form what is called a *text base*, in other words, what the text explicitly states (its microstructure). The macrostructure pertains to larger units of text like the meaning of paragraphs, text sections and a summary of the whole text itself. Meaningful text comprehension occurs when the propositional structure of a text is integrated with the reader's prior knowledge and experience stored in long term memory. The integration process is effortful and during the process the reader engages in inferential processes to help bridge the gaps found in texts since not everything is explicitly spelt out. The integration of the two forms a mental representation called the *situation model* which Kintsch (2002) refers to as the product of comprehension. In other words, this is what the reader says the text mean. A reader who achieves a well-integrated situation model will be able to use the information later even when the text has been forgotten, which is not the case with a reader who recalls the content of the text only (shallow/surface comprehension). However, readers who lack decoding skills might have challenges at the text base level, while those who lack prior knowledge and do not engage with the text may not be able to build a situation model of the text.

2.5 Reading comprehension assessment

Reading comprehension assessment is key to tracking reading literacy development. Habib (2016) asserts that it entails a sum of instruments and techniques which are used in classrooms to help teachers accurately identify their learners' needs and competencies. This is essential in planning instruction material, procedures and activities for learners. Assessment can be formal or informal but for purposes of this study I will focus on formal reading comprehension assessments. A formal assessment can include a standardised test (Bales 2018) which involves the use of standardised procedures that require uniformity in administering and scoring the test for all participants. Examples of standardised literacy assessment tests include Dynamic Indicators of Basic Early Literacy Skills (DIBELS), Early Grade Reading Assessment

(EGRA), Phonological Awareness Test (PAT) and Progress in International Reading Literacy Study (PIRLS). For the purposes of this study I used PIRLS which assesses RC and categorises RC questions into four levels of comprehension (to be further discussed in Chapter 3).

Scholars concur that reading comprehension is not a unitary process but a complex one which makes assessment challenging (Snowling 2009; Shy, McCardle & Albro 2006; Pressley 2002). A reading comprehension assessment should include items which measure a range of comprehension skills including literal and inferencing skills. A reading comprehension assessment should not be biased towards one skill or competence because learners' abilities differ (Snow 2002). A comprehensive RC assessment helps to show learners' strengths and weaknesses as well as measure RC in general. This is what makes reading assessment a daunting task. Shy et al. (2006) state that reading comprehension has proven to be an elusive thing to measure because quite a lot comes into play during the reading process. Ideally, an RC test should assess different levels of comprehension (low to high levels). The PIRLS test clearly spells out four levels of comprehension and questions are allocated to each level.

Reading comprehension tests need to make use of multiple test techniques in a single test which could also help show learners' capacities such as multiple-choice questions, gap filling (i.e. cloze) tasks, open-ended questions, summarisation, true or false and matching items. These formats can tap into a range of understanding, including literal, inferential, integrative and evaluative comprehension (Habib2016; Sabatini, O'Reilly, Halderman & Bruce 2014). A well-designed RC test can give teachers useful information about how well their learners understand texts.

2.5.1 Levels of comprehension

In the preceding sections it was shown how reading comprehension is a complex cognitive process and during the process of extracting meaning from a text a reader engages in different levels of comprehension. There are different ways of classifying these levels. For the purposes of this study I will focus on the PIRLS framework whose tests I adopted for this study.

The four levels in PIRLS are: retrieval of explicitly stated information, straightforward inferences, interpret and integrate information and examine and evaluate ideas. These

levels of comprehension present a hierarchical order of thinking skills that students should master and exercise for deep and solid text comprehension to take place (Hawker Brownlow Education 2010). These levels build on one another, it is impossible for a reader to attain higher comprehension levels without grasping basic information in the text.

Retrieval of explicitly stated information

This is the first step in the process of understanding a text and is the simplest level since the reader has to locate, recall or reproduce what is explicitly stated in the text. The thought processes involved at this level include naming, identifying, defining and listing. These are questions which do not require much thinking, rather retrieving explicit information. Learners might be able to retrieve information from a text without understanding what the writer means or implies, so being able to reproduce the explicitly stated information does not mean deep understanding of a text.

Straightforward inferences

This is a higher level of thinking which goes beyond surface understanding of a text. It entails filling in gaps of information contained in the text. This level is very much text based (PIRLS 2006). The information might not be explicitly stated in the text but the meaning remains relatively clear.

Interpret and integrate ideas

At this level readers make implicit connections and some interpretation based on their own perspective (PIRLS 2006). It can be at a global level or require relating details and information in the text to an overall idea. This involves the use of one's background knowledge in relation to the information in the text. Such questions require the reader to use the information in the text together with what they already know (background knowledge).

Examine and evaluate level

At this level the reader is a critic of the text by looking at the content, language or textual elements. PIRLS (2006) states that the reader focuses on the text itself, including the author's purpose, claims made in the text and the structure and genre and language conventions. Westwood (2008) asserts that at this level the reader can recognise facts

from opinion. The reader can evaluate the content by comparing it with his own understanding of the world. The reader relates what has been read to his own experiences in order to gain a deeper understanding; what is called reading beyond the lines. On textual elements the reader compares how well the meaning is expressed basing on his knowledge of the text genre, structure or language conventions for example judging the structure and clarity of a text. Thought processes involved here include, judging, evaluating, defending choices and hypothesising.

In the PIRLS passage I used the questions were distributed as follows: Literal – 50%; Straightforward Inference – 25%; Integration – 20% and Evaluation – 5%. A lot of information about learners' comprehension processes can be deduced from their performance on questions from the PIRLS test, for example, that learners had surface understanding of the text when they only manage to answer literal questions only.

2.6 Stages of reading development

A number of scholars have described the process of reading in stages (Ehri 1995; Chall 1983). These stages are labelled and described slightly differently by different scholars but they are essentially similar. Each stage builds upon earlier phases and provides the foundation for later stages (Lerkkanen 2003). This shows how critical it is for the lower level stages/skills to be mastered first so that the reading learner does not struggle with higher level stages. It has already been noted that once learners struggle during the early years of reading development, unless there is effective intervention it will be difficult for them to catch up with their peers or even to succeed in school (Geske & Ozola 2008; Cunningham & Stanovich 1997). In this section I will focus on Chall's (1983/1996) stages of reading. Her stages are based on reading in English, an opaque orthography; there may be slight variations in the early stages when learning to read languages with transparent orthographies like Shona. Chall (1996) identified six stages of reading development from emergent literacy to mature reading; the second and third stages are the ones relevant to my study.

Stage 0

The earliest stage zero (0) is also referred to as the emergent literacy or pre-reading stage but which Chall (1983) calls the readiness stage (Stahl & Murray 2006). This is the earliest stage which runs from birth to Grade 1 (6 years). Whitehurst and Lonigan

(1998) describe emergent literacy as the skills, knowledge and attitudes that develop before conventional reading and writing as well as the environments that support these developments. These skills include print awareness, book knowledge and oral story comprehension. As already noted, oral language plays a critical role at this stage. Here children rely heavily on pictures (hence the alternate name logographic stage); they can read environmental print based on conceptual clues and because they are non-readers, they pretend to read. They can also retell stories when looking at pages of books previously read to them, some can name letters of the alphabet, recognise print signs and play with pencils and paper by drawing or scribbling. A language and visually rich environment is important at this stage for children's cognitive stimulation. These experiences lay the foundation for later skills, thus the stronger this phase the better learning platform it provides in the development of reading. By age 6 most children can understand thousands of words they hear from day-to-day conversations and from picture books and story books read to them but can hardly read. However, children from poor backgrounds start the developmental journey of reading from a compromised position because their contexts may not always offer highly stimulating experiences (Ngorosho 2011; Damber 2010; Stanovich 1986).

Stage 1

The decoding stage is stage 1 which is the beginning of Grade 1, between 6-7 years. Chall (1983) refers to it as the initial reading and decoding stage. This stage includes phonological and phonemic awareness, letter-sound knowledge, blending and segmenting letters and word reading. Mastery of the basic or lower level skills of reading is important because the stages and skills are cumulative and connected (Stahl & Murray 2006).

At Stage 1 children should be able to read a simple text with high frequency words and phonologically regular words. Children rely on their decoding skills to sound out new words. Direct instruction of phonics and a lot of practice is of paramount importance in this stage, as is reading texts to children which are at a level higher than the children can read on their own, which helps to develop more advanced language patterns, vocabulary and concepts (Chall 1983). By the end of this stage children can understand about 4 000 words in oral mode but they can only read about 600.

Stage 2

Chall (1983) calls this stage the confirmation and fluency stage. It consolidates what was learnt in Stage 1, for example basic decoding skills and sight vocabulary (Steinman, LeJeune and Kimbrough 2006). The age range at this stage is 7-8 years and it stretches from the end of Grade 1 to the end of Grade 3.

Grade 3 is a very critical stage in children's early learning process. By the end of Grade 3 learners should have developed solid reading skills, can now recognise patterns in words and develop fluency (Espinoza 2010). According to the Early Reading Panel Report (2003), by this time children are able to identify words with greater skill and ease and can also read with better comprehension. This is enabled by the fact that learners would have acquired decoding skills and are also aware of the alphabetic principle, so less effort is channelled towards decoding while the bulk of cognitive energy is directed towards comprehension (Rasinski & Hoffman 2014). Children read simple, familiar stories and texts with increasing fluency and this is acquired through direct instruction in advanced decoding skills, wide reading of familiar and interesting materials that help promote fluency as well as being read to at levels higher than their own independent reading level in order to develop language, vocabulary and concepts. The reason why texts at this stage should be familiar is that they are meant for acquiring reading experience and practice. Familiar texts help readers concentrate on word and sentence structures, while repetition of familiar words and word patterns foster a degree of automatic decoding skills, resulting in fluency and speed (Steinman et al. 2006). This stage also marks the onset of the 'reading to learn' stage (this and the next stage will be further discussed in §2.7 since the transition between Grade 3 and 4 is my area of focus). As learners progress through school, the literacy demands placed on them increase (Gibbons 2009: Chall 1983) and the gaps in literacy may downplay the learners' success, which highlights how critical it is to have a head start as far as reading development is concerned.

Another characteristic of Stage 2 is that the learner can also recognise a stock of sight words in English which means that they no longer rely so much on conscious decoding, channelling more cognitive energy towards higher order skills, making learning more effective. Towards the end of Grade 3 learners face new subjects and are learning to think, read and write in subject specific ways (Gibbons 2009). Mastery of basic reading skills is important because as the child climbs higher up the academic ladder, the more

demanding reading becomes, not only in the complexity of texts but also the volume of work and the cognitive tasks (Dickinson & Freiberg 2009).

Stage 3

Chall (1996) calls this stage the learning new/single view point, which runs from Grade 4-8, from 9-13 years. The stage is also referred to as the reading to learn stage. Here reading is used to learn new ideas, knowledge, experience new feelings, learn new attitudes and it is generally from one point of view (Chall 1983). The texts at this stage should be clear, limited in technical complexity, with ideas expressed mainly through one point of view to promote effective learning. At this stage reading is used more deliberately as a tool for learning. Johnson (2009) asserts that this stage provides learners with the skills to grasp more challenging texts and the complex concepts contained in written texts; which means the language in the texts changes from ordinary everyday language to a more academic/ schooled language. Thus, this level goes beyond the basic skills of decoding, and calls for more cognitive involvement. At this stage learners must learn to assess, critique and synthesise increasing amounts of information from both traditional and electronic sources (Gibbons 2009). Here the learning is also subject/discipline specific which requires learners to control high levels of discipline-related language in order to function appropriately in school. Johnson (2009) points out that the transitioning stage from Grade 3 to Grade 4 is a challenge for most learners since it is more demanding. However, explicit instruction in comprehension and thinking skills helps learners adjust and adapt to the new phase of learning (Early Reading Strategy Report 2003) though struggling readers might find it challenging once they get to this stage.

Since at this stage reading is a tool for learning, learners will encounter new words and new ideas which are beyond their scope and prior experiences (Chall, Jacobs & Baldwin 2009). As a result, learners need explicit instruction to facilitate comprehension, such as how to integrate information from the text with their prior knowledge and the activation of other cognitive skills such as comprehension monitoring. In addition, exposing learners to a rich language environment and early intervention strategies for struggling learners help to avoid frustration and falling further behind. Lack of comprehension may lead to an aversion to reading and once this happens it leads to Stanovich's (1986) Matthew effects it is critical that learners get to this vital stage well

prepared because reading is known to predict performance in later grades (Cunningham & Stanovich 1997).

Stage 4

Chall's (1996) fourth stage runs from high school to early college and is referred to as the multiple viewpoints stage which builds directly on Stage 3. This is when a student comprehends texts from multiple view points, and can read, analyse and react critically to texts. The reader reads widely from a broad range of complex materials; both expository and narrative, and the reader benefits more from reading comprehension than listening comprehension. It is a high level of operation which cannot be attained by struggling readers.

Stage 5

The final stage is called the world view or the construction and reconstruction stage and it includes university students who are about to finish their undergraduate studies and move to the graduate school stage. Reading is used for one's own needs and purposes, i.e. professional and personal. Reading is used to integrate one's knowledge with that of others, to synthesise it and create new knowledge. This is where an individual develops a well-rounded view of the world through reading and is clearly the highest stage, though not everyone attains it.

What is important to note is that all these stages, even those presented by other scholars (Seymour & Evans 1994; Ehri 1987) are incremental and overlap from the basic stage to the final highest stage.

2.7 Academic language/Schooled language

Reading literacy works hand in hand with academic language, also referred to as schooled language (Johnson 2009; Neal 2015). As has already been discussed, as learners progress with their studies, they move from learning to read to reading to learn (Gibbons 2009), when reading for new information becomes increasingly important. Galloway (2016) states that much of learning depends on students reading and comprehending complex texts that contain academic language. Learners are expected to determine the meanings of unfamiliar words, understand nuances in word meanings and multiple meaning words, utilise sophisticated words and phrases among other

abilities related to reading (Friedberg, Mitchell & Brooke 2017). A discussion on academic language needs to be contextualised in relation to ordinary, everyday language to highlight the distinction between the two.

Scholars concur that the emergence of the notion of academic language started with Cummins (1979; 1980) when he coined the terms Basic Interpersonal Communication Skills (BICS) and Cognitive Academic Language Proficiency (CALP) (Wewer 2015; Snow & Uccelli 2009; Zwiers 2007). Cummins' (1979) noted how the language use and expectations of school differed from the home and community language, for both L1 and L2, though the extent might be more pronounced among L2 learners. This concept applies to any schooled language with a literate tradition, whether within L1 or L2 learning contexts. Cummins (1979) describes BICS as the first step in language learning, mainly concerned with achieving oral communicative competence and this happens to both L1 and L2 speakers of a language. During the process of language acquisition children in all languages start by developing BICS through exposure to their home languages in the home and community in general. By age five most L1 speakers would be competent users of their native languages (Cummins 2009) and their BICS would have greatly advanced. This is roughly the time most children enrol for formal learning. Already the L1 speaker of the LoLT enters school with an advantage in the language of school (CALP) compared to non-native speakers who need to learn the conventions of the language of instruction applicable to the learning context while at the same time learning the basics of that language (BICS) in order to be able to communicate (Arts, Demir & Vallen 2011). Furthermore, native speakers of the LoLT from privileged backgrounds come better prepared for the development and use of the school register due to better exposure to the language, while those from disadvantaged backgrounds are likely to struggle despite being native speakers of the school register (Schleppegrell 2004).

The development of BICS takes a shorter period among L2 speakers compared to CALP; in about two years of exposure L2 learners can become proficient in BICS (Cummins 2000; Meyers 1993) but at least 7 years to acquire CALP. BICS is acquired fairly quickly because in day-to-day, face-to-face conversation, meaning is supported by a range of contextual cues such as the concrete situation in which the conversation occurs, gestures, intonation and facial expression among others (Meyers 1993). This is the language typical of social and informal settings though it is an essential stepping

stone in the development of CALP, especially for L2 proficiency. Cummins (2000) argues that students might be fluent in communicative language but still experience problems with academic language and operate below their age/grade level.

Cummins (2000) further elaborates the concept of the Common Underlying Proficiency (CUP) which, he argues, provides for the acquisition of additional languages. He states that in the course of learning one language a child acquires a set of skills that can be drawn upon when working in another language. For example, conceptual knowledge developed in one language provides input for the other, for example if one understands the concept of family in one's native language one can map the new word in the L2 onto this existing concept. This is different from acquiring a new concept, where both the concept and the word are totally new. Therefore, well developed BICS in the native language plays a critical role in L2 learning and learners should be encouraged to continue nurturing their native languages as they progress with their studies.

In Cummins' (2000) terms, CALP is the second tier of language proficiency development. He (2000:66) defines it as, "the degree to which an individual has access to expertise in understanding and using the specific kind of language that is employed in educational contexts and is required to complete academic tasks." CALP is what other scholars refer to as *academic language* or *schooled language* (Fang 2006; Schleppegrell 2004; Zwiers 2007); *language of education* (Halliday 1994); *advanced literacy* (Colombi & Schleppegrell 2002) or *scientific language* (Halliday & Martin 1993). Gottlieb and Ernst-Slavit (2014) put it more simply by saying it refers to the language of textbooks, classrooms and tests. All these terms refer to the same construct; the kind of language encountered in learning contexts. For purposes of this study I will use the term *academic language* interchangeably with *schooled language*. In both L1 and L2 learning contexts this language is first encountered when children enrol in formal school (Schleppegrell 2012).

As diverse as the names are, so are the definitions of academic language. Despite variations, all definitions try to put across the same idea. Schleppegrell (2012:114) defines academic language as "the new set of registers that many children encounter for the first time on arrival at school; a set of registers through which they would be expected to learn and participate as they move through the grades." By registers Schleppegrell (2012) refers to the language forms that we adopt depending on the

communicative situation. Schleppegrell (2012) explains that by the time children go to school they are already familiar with other registers used in different contexts, save for schooled language which most children first encounter when they get to school.

Zwiers (2007:20) explains academic language as “the set of words, grammar and organisational strategies used to describe complex ideas, higher order thinking processes, and abstract concepts.” These features of academic language are discussed in greater detail later below.

Awareness of the presentation and organisation of academic texts is also part of CALP. Academic texts present complex ideas which are typical of the school environment. Academic language also enables the description of higher order thinking processes and abstraction. Because of the complexity of information texts many learners across the globe struggle to learn from such texts. All of the above point to the fact that academic language is characteristic of school activities, which could be either in written or spoken form. As learners participate in the classroom, or any other educational language event they will be developing ways of using language which are particular and necessary in the learning environment. However, this is unlikely to happen where the teachers have low levels of literacy and poor training which is typical of most teachers in the developing countries (Kim, Lee & Zuilkowski 2019; Trudell, Dowel, Piper & Bloch 2012; DeStafano 2012)

There are two categories of academic language (Johnson 2009; Zwiers 2008) and these are *general academic language* and *specific content language*. General academic language cuts across all of the content areas at school and this is the more generic language of knowing, thinking and writing across disciplines. General academic language includes high frequency academic words which may be abstract or have multiple meanings, for example *investigate*, *principle*, *analyse* (Friedberg et al. (2017). These key words act like cement which binds together specific content area language and concepts within the minds of students (Gottlieb & Ernst-Slavit 2014). General academic language provides a foundation for educational success and the more students know and use it the more this foundation is strengthened (Johnson 2009).

General academic language builds upon the foundation of language that would have been developed in the early years of childhood (Cummins 2000; Zwiers (2007); it is easier for children who know more words in their L1 to acquire general academic

language. Children who are exposed to written language with more complex grammatical structures like nominalisations, use of relative clauses and passives inter alia, are better prepared for schooled language. Cummins (1981) emphasises the importance of the development of the learner's L1 during the early years of childhood, saying that the greater the development of a learner's L1 the higher the chances of L2 development. As Snow and Uccelli (2009: 125) put it "academic language skills fall on a continuum with earlier language skills," where early language skills are precursors of later academic language skills.

Specific content or discipline specific language includes its own discourse and professional language (e.g. legal, medical, accounting discourse) and use of specialised terms that are unique to study areas. This means that each discipline has its own specialised terms, for example the use of discipline specific words, *ecosystem*, *longitude*, *high pressure system* in Geography. Zwiers (2007) asserts that it builds upon general academic language and it develops as the student advances with school. Wewer (2015) points out that at college level academic language is more disciplinary oriented and follows certain conventions; the student picks an area that becomes even more expanded with technical and professional language of the discipline. Gottlieb and Ernst-Slavit (2014) also refer to vertical increase, where academic language increases in complexity and sophistication from grade to grade and specific linguistic details can be similar or vary across content areas. Thus, it increases in difficulty as students advance and the subject matter becomes narrower in its focus and this facilitates depth of understanding.

Schools enrol children from diverse language backgrounds, which could be congruent or incongruent with the schooled language, especially among L2 learners (Gottlieb & Ernst-Slavit 2014; Schleppegrell 2012; Snow & uccelli 2009). The lack of consistent exposure to the use of CALP and the lack of a strong reading culture affects the development of CALP. In Zimbabwe the majority of learners are L2 speakers of English which is the LoLT, which means that they are exposed to academic language in the school and after school hours they switch to their home languages, mostly Shona and Ndebele. These learners have a double challenge that as they learn the language of instruction they also have to simultaneously learn academic language in order to facilitate effective learning (Zwiers 2007). Students from impoverished backgrounds or limited exposure to the LoLT struggle with academic language because their exposure

to language outside of school does not include advanced words and phrases which promote the development of academic language (Friedberg et al. (2017). Many students in the USA who perform poorly in school have been raised speaking, reading and writing a language and a register different from the one used in school though there are some L1 students in the USA who also struggle with academic language (Zwiers 2008).

2.7.1 Characteristic features of academic/schooled language

Academic language has a number of characteristic features which distinguish it from every day conversational language. There are four features that will be discussed in this section.

Higher order thinking skills

Gibbons (2009) says higher order thinking skills such as hypothesising, evaluating, predicting or classifying are required to comprehend, solve problems and express ideas. Without these cognitive functions a child's potential in academic contexts is difficult to realise. Researchers have identified the thinking processes associated with different content areas (Zwiers 2009). Science, for example, emphasises describing, classification, formulating, hypothesising and interpreting data. History requires that students describe, explain, define, justify, and provide sequence of events. Mathematics involves a heavy amount of application and problem solving while Language and literature require a lot of interpretation, analysis and application.

Decontextualisation

Academic language is more decontextualised than spoken language. This refers to the use of language without the conversational support that happens in a concrete situation, (e.g. use of gestures and intonation) (Arts et al. 2011; Cummins 2000; Meyers 1993; Snow 1983). In written texts, meaning is constructed from the text itself. It focuses on events outside the concrete here and now. Because learners rely so much on the linguistic context for their learning activities, the ability to comprehend decontextualised texts is critical. Learners' activities which help them develop decontextualised language ability include storybook reading as early as preschool, storytelling and giving descriptions of things and events as well as explanation of ideas (Ntuli & Pretorius 2005). From upper primary onwards learners who lack proficiency

in academic language have serious challenges in understanding texts as well as presenting information accordingly.

Abstraction

Everyday language tends to be about the familiar here-and-now, while academic language contains a lot of abstraction. In school students and teachers talk about events outside the concrete here and now and this entails a lot of abstract vocabulary and concepts (Arts et al. 2011). Each discipline has its own large share of abstraction for example in History students engage with concepts like *political systems, social movements, nationalism*; Maths uses symbols; in Science there are concepts like *atoms, gravity* while in Language and Literature examples include analysing characterisation, use of figurative language (Zwiers 2007). All this makes academic language more challenging than conversational talk and students should have high levels of control over academic language to be successful in school and even later in life (Friedberg et al 2017; Johnson 2009; Snow & Uccelli 2009).

Explicitness

Another feature of academic language is explicitness. Schleppegrell (2001) asserts that in school students have to adopt a stance that present them as experts and when presenting information, they need to do so in a way which presents information without assuming that the audience shares the same knowledge. As a result, academic texts are characterised by a lot of explicit information and lexical density, careful definitions and explanations of the topic under discussion, explicit references (for example specific names of people and places) and nominalisation (Gibbons 2009). Nominalisation refers to the derivation of nouns/noun phrases from verbs, adjectives or any other part of speech, for example *declare* becomes *declaration*, *impose* becomes *imposition*. It turns the verb form into an abstract noun and enables one to refer to abstract phenomena in a more precise way, e.g. *Chopping down forests is harmful for the environment* becomes *Deforestation is harmful for the environment*. Nominalisations are often preceded by adjectives that qualify them *unfettered deforestation: a smoke-filled, toxic environment*. The following is an example of a text which illustrates some of the characteristic features of academic language.

The unilateral declaration of Rhodesian independence by the Rhodesian government in 1965 resulted in the imposition of sanctions on the then Rhodesia (present day Zimbabwe) by the United Nation Organisation.

The text has nominalisation (*declaration, independence, government, imposition*); qualified nominals such as *unilateral declaration, Rhodesian independence*; there is a cause and effect relationship; *the unilateral declaration of independence* (cause) is the one which *resulted in the sanctions* (effect); specialised vocabulary *independence* and *sanctions* (normally found in History). There are also passives in the given example: *The declaration of Rhodesian independence by the Rhodesian government... the imposition of sanctions on the then Rhodesia (present day Zimbabwe) by the United Nations Organisation.* Passives are typical of academic language and they contribute to sentence difficulty which is why learners find most academic texts difficult to comprehend. Explicitness is displayed in references to the event (*the unilateral declaration of independence*), the period when that was done, the country under discussion and the consequences that followed. When the same statement is expressed in conversation form it might read,

You know what? Back in the day Smith rebelled against the Brits and declared that the country/Rhodesia was independent. Next thing, the country was slapped (non-verbal cue-gesture) with sanctions.

From the first example the reader gets an understanding of the text from the text itself and not from any nonverbal cues like what happens in the conversation presented in the second example where non-verbal cues play a critical role to help relay the message.

2.7.2 The development of academic/schooled language

As already stated, the development of academic language can start in early childhood, given a conducive home environment which promotes the development of children's CALP in their L1 (Schleppegrell 2012; Snow & Uccelli 2009; Zwiers 2008). Ntuli and Pretorius' (2005) study with preschool Zulu children showed that exposure to storybook reading and extended discourse helped develop a context-reduced type of language characteristic of academic language. Concept formation can start in the L1 and then be transferred to the L2 LoLT. As children grow up in their homes, they are immersed in languages which could be used as the foundation for the development of

academic language. Research has also shown that L1 speakers of the LoLT from higher SE backgrounds develop academic language with fewer challenges because they tend to be immersed in academic literacy and school-like conversations in their home and community setting and this facilitates the transfer of their skills to the school language (Zwiers 2007). Even Bernstein's (1971; 1973) work on the elaborated code (school language) and the restricted code (ordinary conversational language) showed the advantages that children from high SE backgrounds have in as far as the development of the language of school is concerned. However, many students, even native speakers of English, enter school without knowledge of this register and may even continue through school without really acquiring this register (Johnson 2012; Gibbons 2009). The situation is more complicated for L2 learners because they speak a different language from the one used in school. In fact, Johnson (2009) says it is the third language the L2 learners must learn; first they must learn their native language, then BICS English, and then the third language, academic language, in the LoLT. Zwiers (2007) points out that some of the students who perform poorly in the US are ESL learners from low literacy backgrounds. However, there is research which shows that Asian American ESL learners do exceptionally well in school compared to other minority groups in the US (Chang 2017; Shafer 2017; Byun & Park 2012), some tend to come from families with high L1 literacy and from middle class backgrounds; clearly there is a combination of contributory factors at play.

As already pointed out, SE is a factor which hampers the development of academic language irrespective of language background (Schleppegrell 2004, 2012; Zwiers 2007; Gee 1996). As numerous studies have shown, if children from poor backgrounds are exposed to experiences which foster the development of academic language, they can acquire AL from an early age (Snow 1983; Ntuli & Pretorius 2006; Gottlieb & Ernst-Slavit 2014).

Since academic language plays a critical role in facilitating learning (Johnson 2012; Schleppegrell 2012; Gibbons 2009; Snow & uccelli 2009; Zwiers 2007) schools have a mandate to promote academic language development among students. Johnson (2012) calls academic language the 'lifeblood of learning' and states that if schools fail to provide academic language students will lose their academic pulse which in turn leads to academic arrest. Scholars concur that effective instruction is key to the development of academic language among students (Snow & uccelli 2009; Ontario Education 2006;

Fang 2006; Gee 1996). L2 learners do not naturally pick up academic language, so there is need for structured support from the school (Zwiers 2007). Learners need exposure to appropriate contexts where they hear and read academic language and also get to use it themselves in speaking and writing. Teachers should nurture a love of reading to maximise opportunities to acquire academic language (Ontario Education 2006). In most developing countries like Zimbabwe L2 children tend to rely on their schools for the development of English in general and academic language in particular.

2.8 Grade 3 and 4: The focus study area

As already pointed out, Grades 3 and 4 mark a critical period in the development of reading literacy among learners. It is a period where learners transition from the 'learning to read' to the 'reading to learn' stage (Sibanda 2017; Centre for Public Education 2015; Gibbons 2009; Dickinson & Friedberg 2009). There are a number of skills and competencies that learners are expected to have mastered as well as those that they are supposed to meet in the new stage. In most African countries, Zimbabwe included, the majority of learners transition from the use of the L1 as the LoLT to English or any other L2 applicable in their country (Sibanda 2017; Pretorius & Mampuru 2007; Prinsloo 2002; Peresuh & Masuku 2002). In Zimbabwe children transition from L1 as the LoLT in Grade 4 and switch to learning indigenous languages as subjects (Zimbabwe Education Act 1987). However, this is what policy says on paper but in practice children learn in the L2 right from Grade 1 while the indigenous languages are taught as subjects from Grade 1 in Zimbabwe.

2.8.1 Grade 3

The majority of Grade 3 children are aged between 8-9 years, especially in countries where policy insists on age six as the age at which a child should enrol for Grade 1, as in Zimbabwe. In Zimbabwe Grade 3 through Grade 7 is referred to as the junior level so the transition from Grade 3-4 is not explicitly marked within the junior level. As already indicated, by the end of Grade 3 learners should have developed solid reading skills which are essential for all future academic progress and should also be reading silently to themselves (Centre for Public Education 2015; Mudzielwana 2014; Espinoza 2010). By this grade children should be able to read with accuracy, fluency and meaning. Failure to do so results in challenges in academic performance. "Reading

proficiently by end of 3rd Grade can be a make-or-break benchmark in a child's educational development" (The Casey Foundation 2010: 9). This stage is thus critical in the learner's academic journey and an average learner should be able to decode texts with relative ease. A study by Yale University found that three quarters of children who are poor readers in Grade 3 will remain poor readers in high school (US Department of Education 1999) and this has far reaching repercussions for the affected students because their chances of progressing with their schooling becomes slim and jeopardises further tertiary studies and securing a decent job in the work market.

There is a gradual shift from Grade 2 to Grade 3 so that learners would not be overwhelmed by the changes. Grade 3 texts have a smaller font size, and detailed events, academic vocabulary and technical language are starting to emerge in texts. Even text structure is more complex compared to earlier grade texts. In Zimbabwe at Grade 1 and 2 levels learners focus on four study areas, namely Maths, English, one local language (Shona, Ndebele, Tonga or any other indigenous language) and Content which is a combination of science, religious studies, agriculture and social studies topics, while from Grade 3 the Content subjects are separated and each one stands alone as an independent subject. Teachers should make sure that children leave Grade 3 being able to read fluently and with understanding.

At Grade 3 level most learners are very energetic and full of enthusiasm to learn new things. Their attention span increases (Giessen-Hood 2015) which means that they can work on an activity over a longer period and can also read longer texts. Teachers should take advantage of these features, especially in the teaching of reading, by exposing learners to more and varied reading material and making the learning environment more exciting and lively so as to capture the learners' attention (Bastable & Dart 2007). Group work should also be given preference at this stage because learners enjoy team work. All this facilitates learning at this critical transitioning stage.

Grade 3 can also be viewed according to Piaget's stages of cognitive development. According to Piaget, cognitive development occurs/goes through four stages, namely, the Sensorimotor stage which is the first stage that runs from birth to two years, followed by the Preoperational stage from two to seven years; the third stage is the Concrete Operational stage from seven to eleven years, and the final stage is the Formal Operation from age eleven and beyond (Mwamwenda 2009). Piaget believed that all

children progress through the four stages in the same order (Lefa 2014). In terms of Piaget's stages, Grade 3 (and 4) pupils are operating at the third stage, the Concrete Operational stage. This is where the learner can solve problems that apply to actual objects and events but not yet abstract concepts (Beilin 1992). Though the stage is consolidating for most learners, they cannot yet handle abstract reasoning very well. This therefore means that if a text is too abstract they might fail to comprehend it, so texts should have a lot of illustrations and contain familiar concrete information (Steinman & LeJeune 2006). Even teaching should include a variety of concrete experiences so that learners can relate to the text (Bastable & Dart 2007).

Ideally, learners in Grade 3 should enjoy reading different kinds of texts for different purposes, including fiction such as short or longer stories, information books, magazines as well as grade level texts. At this stage they also move away from reading aloud to practise silent reading. According to Steinman et al. (2006) Grade 3 texts have highly familiar content which facilitates comprehension. However, where texts are difficult to comprehend, learners can be taught to use contextual clues like pictures, surrounding words or even topic specific vocabulary to decode unfamiliar words. At this stage teachers and parents should provide age appropriate texts and encourage independent reading so as to bolster fluency and vocabulary development. Due to an increased interest in reading, learners at this level also are able to recognise a host of sight words which is good for their reading development. Reading is enjoyed by able readers; if a learner struggles to read then there is little motivation to engage in reading, which in turn affects learning and academic progress (Stanovich 1986). Below is an example of a Grade 3 text extracted from a Zimbabwean Grade 3 textbook (Moyo 2001).

Collecting eggs



One fine morning, Sipiwe and her mother went to collect eggs from the hens. Sometimes they took them from underneath the hen, and sometimes they found an egg by itself.

Mother picked up an old hen, which made a terrible noise.

"Quickly, Sipiwe! Take the egg!" said Mother.

"This egg is warm," said Sipiwe.

"Yes, because the hen wanted to keep it warm. But if the hens don't sit on their eggs, they become cold, and the chicks won't grow."

"What does the chick eat inside the shell?"

"The food is already there," answered Mother. "The yellow part is the food for the growing chick. When you break an egg, you can see a tiny black spot. That black spot grows into a chick. When there is no more food left, the chick fills the whole egg. Then it breaks the shell, and comes out alive. Isn't that wonderful?"

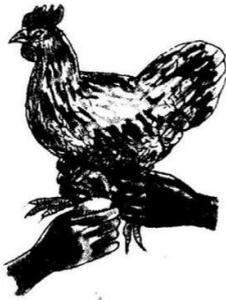
"Yes. Will a chick come out of this one?"

"No, because it will now get cold."

"Look, Mother! There's an egg under a big leaf. It's cold."

"Yes, the hen did not sit on that one. The chick did not grow so we can eat it."

"Come on, Mother! Let's go and cook some eggs for our breakfast."



The Grade 3 text is a narrative text with simple language. The sentences are short and the sentence structure is simple. The majority of words fall within the high frequency level. Generally, the text is easy to understand. A more detailed analysis of Grade 3 texts is presented in Chapter 4.

2.8.2 Grade 4

Grade 4 has been referred to by Sibanda (2017) as the initial grade in the intermediate phase of primary education. In Zimbabwe it is the second year of junior school. The age range for this grade is 9-10 years in most African countries including Zimbabwe. The level also falls within Piaget's Concrete Operational stage and for most children the stage will be consolidating, where children still rely more on concrete evidence in the learning process. They can solve problems as well as reason logically about concrete objects and events. They can also engage in some abstract thinking, especially where there is a direct connection with their experiences.

At this stage learners have exited the learning to read phase and are now in the reading to learn stage, which is a more challenging stage, especially for those who would have failed to master the basic skills of reading. Sibanda (2017: 3) asserts that reading to learn is, "more cognitively involving as it employs the reading skill as a learning tool

to unlock textual meaning.” The instructional focus at this stage is no longer on decoding but on fluency and comprehension which is a cognitive skill. Chall (1983: 70) notes that “through this transition children enter the world of knowledge in printed form, gaining access to knowledge that can be acquired only if one knows how to read the texts that contain it.” At this stage learning revolves around reading, it occupies centre stage and those who are not proficient will fall behind. By Grade 4 struggling readers rarely catch up with their peers and are four times likely to drop out of high school (The Centre for Public Education 2010). It is also emphasised that low achievement in reading has serious long-term consequences in terms of individual earning potential, global competitiveness and general productivity (The Casey Foundation 2010). All this is a result of failure to master reading skills during the early years of primary schooling. However, this stage is quite problematic even for L1 learners because of the unfamiliar nature and complexity of academic language employed in the texts (Sibanda 2014; Steinman et al. 2006).

Chall et al. (2009) note that this stage requires more knowledge of word meanings, more advanced word recognition, greater facility in decoding and greater fluency in reading printed text so as to shift from word recognition to meanings and ideas. Sibanda (2017: 1) argues that “the transition involves challenges which impose particular competence needs on the learners whose satisfaction determines the extent to which subsequent learning and attainment is constrained or expedited.” That is why those learners who have fallen behind at this stage have very slim chances of successfully progressing with their studies. These transitional challenges are a global phenomenon.

The transition from learning to read to reading to learn is a watershed in learners’ literacy development. Since the transition is such a challenge, scholars in the USA refer to ‘the Grade 4 slump’ which refers to a decline in children’s reading abilities, even for learners who had previously been reading at grade level. This is not the case with the Zimbabwean or other developing countries because most learners do not read at grade level, so in these contexts poor readers just continue struggling. Yet because the texts are no longer ordinary texts, but become more discipline oriented, struggling readers find the stage more challenging and their interest diminishes while at the same time their progress slows down (Kitson 2011).

In addition, in many schools in low- and medium-income countries, reading is not really given much attention, in either L1 or L2 contexts, schooling is mostly conducted orally, with lots of whole class chanting of information, especially at Grade 1 and 2 levels (Kim et al. 2019; Trudell et al. 2012). Starting from Grade 3 learners have to practise silent reading (Steinman et al. 2006) yet books are scarce, as in Zimbabwe. As a result, the transition is a hurdle for most learners since silent reading is best practised where the pupil-book ratio is not too high (Mutseyakwa 2010; UNESCO 2016).

All this adversely affects the development of reading because at the time learners are expected to move to a higher level in reading development they are also supposed to learn all subjects in the LoLT except the indigenous languages. Kim et al. (2016) refer to a study by PASEC 2015 on ten Sub-Saharan African countries which use an L2 as the LoLT compared to Burundi where instruction is in a familiar language. Learners from the other countries did not reach sufficient proficiency in reading and math while the majority in Burundi did. Reading literacy is thus a serious challenge in both L1 and L2 contexts in African countries. That is why the argument is made that by end of Grade 3 learners should have mastered the basic skills of reading so that they are able to devote more attention to more cognitively demanding tasks (Sibanda 2017; Espinoza 2010; Casey Foundation 2010; Steinman et al 2006).

In Grade 4, learners meet a variety of texts which are longer, with small print, reduced word spacing, more complex ideas, and figurative language, academic and technical language (Sibanda 2017; Centre for Public Education 2010). Texts also have visuals which are more complex than those of narrative texts and include, for example, tables, maps, life cycles, and more complex ideas and abstract topics which enable learners to engage in problem solving and application of understanding in other areas. An expanding vocabulary is essential for comprehension and a scarce vocabulary repertoire by Grade 4 is a precursor to challenges in reading comprehension (Sibanda 2017). This on its own is a challenge to most learners who would have been used to reading short and highly illustrated narratives in the previous grades.

The teacher's role here should also include explicit teaching of how to comprehend texts at a deeper level, for example, through the use of strategies like predicting, summarising and self correcting in order to enhance text comprehension, encouraging learners to read widely as well as rewarding them when they do well in order to keep

them motivated (Bastable & Dart 2007). They should also familiarise learners with text structure in different genres in order to prepare them for the variety of text genres that they are likely to meet as they progress with their studies (Malloy, Marinak & Gambrell 2018).

Just like Grade 3 learners, learners at this level should enjoy reading a variety of texts on their own which makes it easier to cultivate a reading culture, resulting in vocabulary development which is in turn good for comprehension, but most African schools are not well resourced (Julius 2014). Giessen-Hood (2015) notes that at this stage learners should be supported by both the teachers and parents as they take on new challenges and encouraged to solve problems independently while using books as their sources of information. The following is an example of a text from a Zimbabwean Grade 4 textbook (Brown & Musara 2001). The Grade 4 text is also a narrative text and just like the Grade 3 text, the majority of words fall within the high frequency level. However, this text has longer and more complex sentences compared to the Grade 3 text. A more detailed analysis of Grade 4 texts is given in Chapter 4.



The bush fire

Read the passage below and answer the questions that follow.

The flames leapt high into the air, and a rush of heat blew against Sifile's cheeks. He stepped back and mopped his sweating face with the bottom of his shirt. His back was aching. His arms were aching, but the fire was still blazing. It was advancing steadily across his father's land. It was gobbling up the grass and small bushes as it advanced.

Sifile picked up the wet sack and began to beat the flames again. The men next to him were also beating the flames with wet sacks. Many men were fighting the fire. They had formed a line against it, and were doing their best to smother the flames with the wet sacks.

It took two full hours, and when the last flame had been put out, the men walked wearily home, dragging their wet sacks behind them.

Marvels and Mysteries – Sunrise Readers Red Book 1 – V. Jenkins – Longman, 1994.

2.9 School factors and reading development

In this section I briefly explore external school factors which can impede or contribute to the development of reading literacy among learners.

The school plays a critical role in the development of reading literacy. Julius (2014) points out that the school is the children's second home where they spend the greater

part of their childhood. It should therefore provide a conducive environment for the development of reading literacy. However, not all schools provide this environment due to a number of factors (World Bank Report 2018; Kim et al. 2016; PIRLS 2016). Of the many school factors only, a few are going to be discussed in this section, namely school ethos, school SE factors, availability of resources, the role of teachers and the classroom environment.

2.9.1 School ethos

Every school has its own ethos which distinguishes it from other schools. The school ethos can either help bring about an effective and successful school or be detrimental. McLaughlin (2005: 312) defines ethos as “the characteristic or prevalent tone, sentiment or spirit informing an identifiable entity involving human life and interaction.” Bragg and Manchester (2011) assert that it has to do with the feel of the school. The ethos generally entails what happens in the school, the administration, teaching and learning, social interactions, expectations of what learners can achieve, learner performance, the physical outlook of the school and its maintenance. All this is critical for the effectiveness of a school which also includes reading development.

Deal and Peterson (2009) state that school ethos is formulated by the people within its organisation and they are the ones who sustain or destroy it. In the school set up, from the head of school, management team, teachers, learners and the community/parents, everyone has a role to uphold the official and unofficial ethos of the school. Official refers to what is spelt out as the vision and mission statement of the school and the unofficial refers to that which is implicit but is necessary for the effectiveness of the school, for example the quality of relationships and interactions and orderliness within the school. Bragg and Manchester (2011) assert that good behaviour is a prerequisite to effective learning as bullying or disruptive behaviour from learners in a classroom will impede learning. If a school upholds and encourages good behaviour and order in the school it creates a peaceful environment conducive for learning. Such a school makes it possible for learners to carry out individual tasks like independent reading even during the absence of teachers because the learners will be accustomed to a particular culture.

Also, school safety and security are associated with academic achievement (Howie, Combrinck, Roux, Tshele, Mokoena & Palane 2016; Tse & Xiao 2014). Students who

are uncomfortable, who feel threatened and experience bullying have their academic achievement adversely affected. Howie et al. (2016) point out that from the PIRLS results analysis carried out in South Africa schools that had high cases of bullying and insecurity performed badly while those that did not have such problems performed well. School infrastructure in most African countries is in a bad state, some buildings are dilapidated and there are places where learners are taught in temporary structures and even in open places; such scenarios can be witnessed in Zimbabwe (Beck 2015; Mutseyekwa 2010). However, learners can feel insecure and bullied even in modern and well-resourced schools, and the school shootings in the USA schools are an extreme example of this.

Teddlie and Reynolds (2000) assert that teachers are effective where the culture is collaborative, collegial and motivating – what might be termed a positive school ethos. The same has also been echoed by Hempenstall (2020) in a report on characteristics of schools that do well in Australia. According to Bragg and Manchester (2011) a positive ethos improves pupil and institutional outcomes even in disadvantaged contexts because the environment encourages effective teaching and learning. Consequently, school leadership should be in the forefront in explicitly articulating and enforcing a positive ethos in schools to avoid what Donnelly (2000) refers to as the gap between what is declared in the ethos and what happens in the school. It can be noted that the success of other school factors is determined by the school ethos.

2.9.2 School SE factors

SES also plays a significant role in the development of reading literacy. Schools with low SE conditions negatively impact reading literacy development. For example, results from SACMEQ studies (Hungu, Makuwa, Ross, Saito, Dolato, van Cappelle, Paviot & Vellein 2011; Onsomu, Nzomo & Obiero 2005) showed that schools with poor learning facilities, resources and or equipment had low literacy and numeracy results in Malawi, Mozambique and Kenya while those with better resources in Seychelles and Mauritius had better results. Research has also shown that schools in richer communities outperformed those from poorer communities (Tse & Xiao 2014; Onsomu et al. 2005). Thus, a school in an affluent community or which is privately owned tends to have better teaching resources and better qualified teachers compared to public schools which have fewer resources but higher numbers of learners. Within

urban areas, schools that serve poorer communities tend to have lower academic outcomes. On the other hand, most learners from urban schools perform better than their counterparts in rural areas because schools in rural areas are seriously under resourced especially in the African context (Beck 2015; van Fleet 2012; Onsomu et al. 2005).

2.9.3 Availability of resources

Availability of resources is another important factor in the development of reading literacy. A classroom with a variety of reading material besides the syllabus texts and a well-resourced library with appropriate books and internet service are prerequisites in every school, especially in this age of technology. The amount of and access to reading materials by learners is associated with high achievement in reading (Damber 2010). Reading development is enhanced by practice (Stanovich 1986) which can only happen if there are adequate print resources. However, sub-Saharan Africa has a serious dearth of reading materials in schools and classrooms, and libraries are also scarce and under resourced which deprives learners of the print exposure that they require for reading development. A library is a rich avenue in boosting students' reading achievement, but where resources do not permit the establishment of a library, then schools should try to make sure that the classrooms are well resourced (Julius 2014). The PIRLS (2016) report also found that learners in developed countries performed better than their counterparts in developing countries because of availability of resources. Hungi et al. (2011) state that from their 2007 SACMEQ survey only Mauritius and Swaziland had acceptable levels of textbook provision in reading and Maths. The report also pointed out that even the physical resources essential for effective teaching and learning were below what was expected, for example, most schools in the participating countries did not have class cupboards, bookshelves, electricity, computers, and stationery among other essentials. However, resources on their own do not guarantee literacy development; they need to be mediated by teachers.

2.9.3 The role of teachers

Teachers occupy a central place in the development of reading among learners. Teachers are the ones who facilitate the learning process. Their qualifications, experience, attitudes and values contribute much towards meaningful learning,

particularly reading literacy development. This is coupled with the teachers' experience which is measured by the number of years of the teacher's service. The experience that teachers have can help to sharpen their skills. However, it is not always the case that a highly qualified and/or a highly experienced teacher will be more effective in the classroom. Mullis, Martin and Sainsbury (2016) in their PIRLS report noted that learners who were taught by teachers with 10-20 and more years' experience had higher achievement than those with 5 or less. However, the report goes on to point out that it is difficult to use teacher experience as a determinant of learner achievement because there are a number of factors which also come to play. For example, teachers who have been poorly trained are likely to use ineffective teaching methods which they continue using over the years, and there are some who do not put in any effort despite many years of service and this affects student achievement. There could also be less experienced teachers who are committed and hard working and who positively impact their students. This is because teachers can only deliver what they have, thus if they are not knowledgeable or if they are inexperienced their teaching will not be very effective. The SACMEQ report of 2007 shows that Mauritian teachers had up to 21 years of experience and the performance of their learners was ranked among the best, compared to Zambia which had teachers with an average of six years' experience and the performance of the Zambian learners was poor. Regrettably there is no evidence of research on teachers' teaching experience in the Zimbabwean context.

Quite a number of teacher related factors contribute towards learner reading achievement, and these include teacher satisfaction, as well as content and pedagogic knowledge. Damber (2010) asserts that teacher competence – which is defined by experience, teacher training education and content knowledge of teaching skills – is linked to student achievement levels. Teachers who fall short of these negatively impact their students' learning. As Julius (2014:16) aptly puts it, “no nation can rise above the level of its teachers.” To be able to effectively teach reading, reading teachers should be knowledgeable of content and pedagogy (Hempenstall 2020; World Bank Report 2018; Kim et al. 2016; Buckingham, Wheldall & Beaman-Wheldall 2013). Many teachers in sub-Saharan Africa have little knowledge about reading or about links between L1 and L2 literacy acquisition and even how to teach in multilingual contexts and yet they are the ones practising in multilingual contexts so this negatively impacts on literacy acquisition among learners. They should be taught what reading entails; its

components, development, how best to teach and assess it so that their content knowledge can be merged with pedagogic knowledge (Akyeampong, Pryor, Westbrook & Lussier 2011). A research report by Buckingham and Meeks (2019) points out that in Australia there have been numerous calls by several researchers on the need to reform and improve teacher education and reading literacy related issues to help rescue the many struggling learners in schools. This shows that there is need for teachers to be trained accordingly if reading literacy is to improve in many parts of the world, in both L1 and L2 contexts.

Another factor related to the teacher's role is instructional time. For effective teaching and learning, more time needs to be devoted to literacy instruction (Kim et al. 2016). In most African countries, very little of the allocated time for teaching a subject is actually devoted to teaching and learning (allocated versus engaged time) due to a number of factors, such as absenteeism by both teachers and learners, a shorter school calendar as well as double shift schools (what is known as hot seating in Zimbabwe, (DeStafano 2012; Mutseyekwa 2010). Often teachers will be around but not in the classroom, busy with other things like administrative duties (Kim et al. 2016; World Bank Report 2018). As a result, literacy instruction suffers (Brombacher, Collins, Cummiskey, Kochetkova & Mulcahy-Dunn 2012). Most of these challenges are prevalent in rural areas where performance is poorer compared to urban schools (World Bank Report 2018).

2.9.4 The classroom environment

The classroom environment directly affects reading achievement. The classroom environment entails quite a number of factors namely: teacher-pupil ratio, order, fruitful literacy events which include time allocated to literacy activities, rich teacher discourse and availability of reading material. Damber (2010) argues that smaller classes have advantages which include opportunities for developing close teacher-pupil relationships which help the teacher know his/her individual students better thereby enabling effective teaching and learning. Although the notion of 'smaller' is relative, smaller classes are an advantage when it comes to the literacy activities that the class engages in, almost everyone has a chance to participate and struggling learners can be easily identified and assisted. Based on 2007 SACMEQ data Hungi et al. (2011) state that the expected class size of ≤ 40 as recommended by research is not the case, most

countries in southern Africa have classes as big as 60 pupils which negatively impacts effective teaching and learning. As a result, most teachers resort to the lecture method because the class is too big and the resources are inadequate; the teacher deems it his/her responsibility to disseminate information to learners who have little if anything to read by themselves.

The World Bank (2018) report asserts that textbooks, writing materials and other physical resources have reasonable effect on student performance and yet most schools in developing countries are inadequately resourced.

2.10 The home environment and reading development

Learners' reading achievement is also strongly influenced by a number of social, cultural and contextual factors which exist outside the school (Tse & Xiao 2014). These factors include parental involvement, parental education and the SES of the family which contribute to the learners' reading development as well as overall academic achievement (Arts et al. 2011).

As already indicated, the home is the primary context where families – consciously or unconsciously – prepare children for literacy development. The home equips children with antecedents for reading development, like language and other forms of literacy in the form of both conceptual and behavioural experiences (Chansa-Kabali 2014; Bhattacharya 2010; Johnson 2009). These provide a good foundation for reading literacy development. Ngorosho (2011) argues that through active participation and interaction with others in the home children naturally learn the sounds, sound structure and how to organise speech sounds according to their native languages which is essential for the development of phonological awareness, a precondition for reading development when they get to formal schooling. Storybook reading to children also bolsters phonological awareness in their children, as well as vocabulary and familiarity with storybook structure and conventions. Damber (2010) also stresses verbal interaction between parents and their children as key for vocabulary development which is also a critical element in the development of reading literacy. Despite the role that the home environment plays in the development of literacy, there is scant research in this domain in African contexts, save for large scale studies by SACMEQ and PIRLS. The disadvantage here is that some of the African countries like Zimbabwe do not participate in such studies. There are some scholars like Chansa-Kabali (2014),

Ngorosho (2011) and Kanyongo (2005) who have looked at issues to do with the home environment in the African context. Their studies tally with what many scholars have found about the home environment in the developed world (Nicholson, Fielding, Mercer & Ohi 2013; Bhattacharya 2010; Johnson 2009). This shows that the home plays a key role whether it is in the developed world or its developing counterpart.

Parental involvement in children's literacy development is another key factor in the development of reading literacy among learners. Epstein (1995: 219) describes parental involvement as

families and community who take an active role in creating a caring educational environment, parents who are involved with their children's education, demonstrate good parenting skills to help them learn at home, take an active role in school-related decision making.

Such parents actively monitor their children's literacy activities and progress, assisting with homework, interacting with their children's teachers and taking part in school activities like sports and development meetings (Waldfogel 2012). When parents take time to read to their children, find time to listen to them reading, engage in dialogic and shared reading with them it has positive effects on children's reading achievement as well as overall academic achievement (Chan, Ko & Tse 2008). Children whose parents do not do the above activities are at an increased risk of reading problems (Waldfogel 2012).

Family SES also plays an important role in the development of reading literacy. Learners from high SES are provided with rich literacy environments which facilitate high cognitive stimulation and include factors such as availability of educational materials like books, notebooks, computers, games and the interactions between parents and their children, while the opposite holds for low SES families and children (Ngorosho 2011. Hart and Risley 1995). The United Kingdom and other developed countries have introduced state funded universal part-time preschool education for three to four-year olds in order to circumvent the inequalities in early childhood which stem from low SES (Melhuish, Phan, Sylva, Sammons, Siraj-Blatchford & Taggart 2008).

Socialisation processes are also affected by SES. Bourdieu and Passeron (1977:45) argue that the primary habitus which is the home/family constitutes "the basis for subsequent formation of any other habitus." Bourdieu refers to habitus as a property of

agents that comprises a structured structure and structuring structure whereby one's disposition is shaped by past and present experiences which in turn help to shape one's present and future in a systematic manner (Maton 2008). This process can be self-perpetuating, for example, working class children tend to get working-class jobs (Maton 2008). This explains how our experiences influence either negatively or positively our present and future circumstances and this starts in the family. Although not articulated within the Marxist Bourdieuan paradigm, Stanovich (2000: 187) concurs with the notion that the family environment impacts on children's reading literacy development

Such a child [from a high SE home] is an advantaged organism because of the superior environment and the genotype provided by the child's parents. The parents similarly environmentally and genetically advantaged, are more likely to reside in a community which provides the "concentration of pupils" that, via the independent effects of school composition, will bootstrap the child to further educational advantages. Conversely, disadvantaged children are most often exposed to inferior ability composition in the schools they attend. Thus, these children are the victims of a particularly perverse "double whammy."

Thus, a family can nurture basic literacy skills and attitudes which can be further amplified when children enrol for formal education, especially where the school provides a conducive learning environment.

Schools can play a compensatory role in reducing low SE home inequalities. Well resourced schools and quality teaching can close the literacy gap which is created by disadvantaged home backgrounds. However, in most African countries the situation is a bit different; most countries now provide high access to education, but high-quality education remains elusive. Most schools are poorly managed and poorly resourced so education outcomes remain low.

2.11 An overview of research on reading literacy in Zimbabwe

Having looked at the conceptual and theoretical frameworks of reading literacy, I now include a brief overview of literature on reading literacy in Zimbabwe. As indicated in Chapter 1, reading literacy is a field which is under researched across all the educational levels from primary to tertiary level in Zimbabwe. Most of the limited research base that is available does not concern early literacy development, but I am going to include it simply because it covers reading literacy development.

The latest small-scale study by Gumede and Boakye (2020) was on Grade 9 Bulawayo learners' reading comprehension levels. The learners in question were the ones who were affected by the 2006-2008 series of disturbances that rocked the Zimbabwe education sector. The results of the study showed that the learners' performance was below that of Grade 4 learners though they were actually in Grade 9.

Brown's (2014) study with Grade 3 learners in Hurungwe district (as discussed in Chapter 1, §1.2.1) is the only study which covers early literacy development. The results of this intervention showed that there were significant improvements in concepts about print, letter identification, individual word reading and fluency compared to the control group (cf. Table 1.1). However, accuracy and fluency were generally poor. A Grade 3 learner who reads 22 and 24 wcpm in Shona and English respectively is a struggling reader.

Zimbabwe once participated in large scale regional assessment programmes (Southern and Eastern African Consortium for Monitoring Educational Quality - SACMEQ) which assessed Grade 6 learners' reading literacy and numeracy skills in member states. The 2011 SACMEQ results (2007-2011) showed that there were significant differences between urban and rural learners' performance across the provinces in reading, and Mathematics. Learners in major cities (Harare, Bulawayo, Gweru and Masvingo) performed better.

Moyana's (2000) study with Form 2 (Grade 9) learners from Harare on reading comprehension showed that learners had challenges with reading comprehension. The same was also observed by Pfukwa (1994) in his work with Grade 8 learners from one secondary school in Harare. The learners had reading comprehension challenges.

To the best of my knowledge, these are currently the only studies on school-based reading literacy in Zimbabwe. Very few studies have explored early reading literacy, pointing to a serious dearth of reading literacy literature in the Zimbabwean context.

2.12 Conclusion

This chapter reviewed the literature related to reading literacy and its development in early and intermediate primary school. The chapter looked at what reading entails, its development and factors affecting its reading development. Models such as the SVR and DTH were discussed to examine varying relationships between the two main components of reading, decoding and RC, while the C-I theory was used to explain what happens during the reading comprehension process. Academic language was also discussed since this is the medium whereby information is conveyed in school textbooks. The chapter also highlighted the role of the school and the home environment in reading literacy development, and findings from local as well as global contexts were used to link theory and research. A brief overview of the available reading literacy literature in the Zimbabwean context was also included.

Chapter 3: Research methodology

3.0 Introduction

This chapter sets out the research design and methodology used in carrying out the investigation. I start by reiterating the research questions because they guide the research process. The chapter also explains the mixed methods research design used in the study, population and sampling, the data collection instruments and procedures, together with the pilot study carried out before the main study. A description of the main study is also included.

To recap, the main aim of the study was to explore the development of reading literacy in the primary school, specifically Grades 3 and 4. To this end, the following research questions were posed:

Research Questions

- RQ1 How do Zimbabwean policy documents position reading literacy in the elementary stage of primary schooling?
- RQ2 How do Grade 3 and 4 narrative and information texts used in Zimbabwean schools differ in terms of their text and lexical profiles?
- RQ3 How do the Grade 3 and 4 learners perform on reading literacy assessments appropriate to their grades in the targeted schools?
 - 3a How do the targeted Zimbabwean Grade 3 and 4 learners perform in reading comprehension (RC) and oral reading fluency (ORF) assessments?
 - 3b How does performance on RC and ORF differ between the Grade 3 and 4 learners in this study?
 - 3c What is the relationship between RC and ORF?
 - 3d How does Grade 3 and 4 learner performance on RC and ORF differ in terms of gender?
 - 3e How does Grade 3 and 4 learner performance on RC and ORF differ in terms of age differences within the grades?

- 3f How does Grade 3 and 4 learner performance on RC and ORF differ across the four schools in the study?
- 3g How is writing developed to support reading development in the Grade 3 and 4 learners?
- RQ4 What do the selected primary schools do to orientate children to reading literacy?
- 4a How do classroom resources support reading literacy development in the selected schools?
- 4b How do teachers carry out reading comprehension lessons in the selected schools?
- 4c How do teachers and principals perceive the role of reading literacy in the learning process?
- RQ5 What socioeconomic and classroom related challenges do Zimbabwean Grade 3 and 4 teachers and learners face during the early development of reading literacy in L2?

As can be seen, answers to these questions rely on different kinds of data collection and analysis and so a mixed methods approach was called for in this study. In this chapter I describe methodological issues related to both the pilot study and the main study. This was my first involvement in both quantitative and qualitative research. Despite the knowledge and experience I gained during the pilot study, my ongoing learning curve during the course of my study might potentially have affected the procedures and analysis in the qualitative aspect of this study.

3.1 Mixed methods research design

Research design is determined largely by the research questions that the researcher poses and for this study the mixed methods design best addressed the questions under investigation. This study thus incorporates both quantitative and qualitative data collection methods and analysis. Dörnyei (2007: 163) asserts that mixed methods research “involves the collection or analysis of both quantitative and qualitative data in a single study with some attempts to integrate the two approaches at one or more stages of the research.” Johnson and Onwuegbuzie (2004: 17) define mixed methods research

as “the class of research where the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches, concepts or language into a single study.” The above definitions bring out the idea that data collection and analysis is done by making use of more than one design, method or approach that potentially provides greater insight into the problem under investigation. To this effect Dörnyei (2007) points out that the idea behind the integration of quantitative and qualitative approaches is aggregating the strengths of the two designs so that the sum becomes greater than the parts.

Morse and Niehaus (2009) state that the mixed methods research is meant to address complex phenomenon which is beyond the reach of a single method. My study looks at the development of reading literacy that underpins academic literacy in the early years of children’s learning. This is a complex topic as it involves various internal and external factors and stakeholders that interact in complex ways: learners’ reading ability is affected by their language proficiency, their decoding ability and general cognitive ability, all of which in turn can be affected by their home and SE factors, by the schools that learners attend, by teacher practices in classrooms and by access to books. Some aspects of this topic were looked at through qualitative data analysis (e.g. curriculum documents, examining schools, teacher perceptions and classroom practices) while other aspects were dealt with through quantitative data analysis, which included an examination of learner literacy performance through the use of RC and ORF tests. So, the two approaches were drawn into the same study, with each emphasising different aspects and this helped to triangulate the data and enhance the results and findings of the study.

Making use of the two research methods concurrently was also in a way meant to ensure the trustworthiness of the research findings. Trustworthiness entails credibility, transferability, confirmability and dependability (Stahl & King 2020). The pilot study, using different methods of data collection and analysis, providing a clear methodological audit trail, and following specific steps for collecting and analysing qualitative data helped to establish trustworthiness. The fact that it was a small-scale study should be born in mind as far as the generalisability of results is concerned.

The questions and their respective designs are shown in the table below.

research design (where the research is done in phases, employing first one approach in a phase, and then employing another in the next phase). The concurrent research design is represented by a plus (+) sign while the sequential research design is shown by an arrow (➡). A design that is capitalised indicates that it is the core component, but where both are either capitalised or not means they play an equal role. For example, a researcher might have any one of the following combinations in a single study.

QUAL+QUAN; QUAL+quan; QUAN+qual; QUAL+QUAN; QUAN+QUAL;

QUAL ➡ quan

qual ➡ Quan

quan ➡ Qual

The study in question employed the QUAL + QUAN combination which some scholars refer to as a convergent parallel research design (Friese 2012; Creswell & Clark 2007) or a concurrent mixed method (Fetters, Curry & Creswell 2013; Dörnyei 2007; Driscoll, Yeboah, Appiah, Philip & Rupert 2007). Under the convergent parallel design, the researcher collects and analyses both qualitative and quantitative data during the same phase of the research process. The two sets of results are then merged into an overall interpretation (Watkins & Gioia 2015; Creswell & Clark 2007). The interpretation is meant to establish to what extent the results show corroboration, divergence or even contradiction.

In this study for the qualitative component I made use of the case study research design where a small number of schools, classrooms and learners serve as single cases (§ 3.1.1 below). Data was collected via classroom and lesson observations, open ended interviews with teachers and school principals, and document analysis of curriculum policy and Grade 3 and 4 texts and exercise books. In the same time period I also used two sets of assessment measures for the collection of quantitative data from Grade 3 and 4 pupils to examine their reading levels. This means that both qualitative and quantitative designs were employed concurrently but addressed different issues of the same phenomenon, viz. reading literacy development.

The convergent research design is ideal in cases where the researcher wants to obtain different but complementary data on the same topic (Creswell & Clark 2007). This is meant to tap from the strengths of both designs while at the same time making up for

weaknesses of the qualitative methods with those of the quantitative methods and vice versa. In the end, this helps bring about a better understanding of the research problem. This is also the reason why the convergent research design is also referred to as a triangulation method in mixed methods research (Maxwell 2005). In my research study I employed various research instruments and procedures to collect qualitative data.

Since this study employs both quantitative and qualitative research designs, I shall briefly explain aspects of each design which pertain to my study. The central premise in quantitative research design is the collection and analysis of numerical data which leads to inferences which can be generalised to other settings. Leavy (2017:9) posits that the quantitative research design “involves measuring variables and testing relationships between variables in order to reveal patterns, correlations, or causal relationships.” I wanted to assess Grade 3 and 4 learners’ reading ability so the best way to do that was to use quantitative assessment measures in the form of comprehension and oral fluency tests which were administered to learners. However, these literacy assessments were contextualised within their school settings.

Denzin and Lincoln (2000:3) state that qualitative research design “involves an interpretive, naturalistic approach to the world.” In this view, qualitative research is all about investigating a problem in its natural setting with the researcher playing a pivotal role. I observed teachers and pupils carrying out their lessons in their schools and classrooms during their normal learning times. I also examined the classrooms and interviewed class teachers and principals of schools using open ended questions. All this was done so as to gain a deeper understanding of the meanings that people (participants) attach to phenomena and the ways that they enact them, in this case, reading literacy. Here, emphasis is on the participants’ perspective and actions (Hennink, Hutter & Bailey 2011). The other method of qualitative data collection that I employed was documentary analysis (or text analysis), where I analysed policy documents relating to the Grade 3 and 4 English syllabi to determine what the systemic literacy perceptions and expectations were. I also analysed a sample of texts typically used for Grade 3 and 4 learners extracted from their Science, Agriculture and Social Studies and English textbooks. The purpose here was to establish the academic language and the vocabulary levels of the texts.

The mixed methods research design has a number of advantages over the use of a single method. Firstly, it helps to answer the questions which cannot be answered by quantitative or qualitative approaches alone. This is due to the fact that the mixed methods research is not restrictive; it allows the researcher to employ both approaches in order to deal with the research questions effectively. It also provides more evidence for studying a research problem than either quantitative or qualitative alone. This flexibility is what makes it especially suitable in classroom situations. Dörnyei (2007) argues that mixed methods research helps in understanding the operation of complex contexts like the second language classroom since combining several research strategies can broaden the scope of the investigation and help enrich the researcher's ability to draw conclusions.

Mixed methods research allows the researcher flexibility and makes it possible for both quantitative and qualitative research questions to be addressed simultaneously. For instance, some questions in my study are best answered by assessing learners directly to determine quantitatively what they can or cannot do, but the study also requires that I observe the actual learning contexts (classrooms) and processes (lessons) and also engage with the school principals and teachers on a one-on-one basis in order to contextualise the reading outcomes and better understand the teaching and learning of reading in the L2 classroom. This also means that issues that can be easily missed when working with one method can be taken care of because of the broader scope and flexibility of the mixed method research design.

3.1.1 The case study research method

Within the mixed method approach adopted in this study, the case study research method was employed as a strategy of enquiry. According to Creswell (2007: 73) "case study research involves the study of an issue explored through one or more cases within a bounded system (i.e. a setting, a context)." Yin (1994:13) also describes it as "... an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident." This suggests that the case study research strategy facilitates the investigation of phenomenon in its natural setting and as it unfolds. A case here may involve an individual, several individuals, a group, a programme, policy, instruction, system or activity among others (Simons 2009; Creswell 2007). In my investigation, I

explored the reading abilities of Grade 3 and 4 pupils within the bounded system of the school and classroom, using four urban schools in the same district and city as examples of my 'case', and observed them and their teachers during their normal learning time in the classrooms where they always have their lessons with their usual teachers.

The case study research method is a strategy which can be employed when one is carrying out a qualitative or a quantitative study, which makes it suitable for my mixed methods research study. Woodside (2010) says it is not restricted to qualitative research as stated by Creswell (2007) but is also appropriate where a quantitative study is being explored. Cohen, Manion and Morrison (2011) posit that since the strategy can blend numerical and qualitative data it is a prototypical instance of mixed methods research. Since my study incorporates both quantitative and qualitative research in the form of mixed methods research, it is possible to implement the case study research method to explore reading activities in four Zimbabwean primary schools.

Furthermore, the case study research strategy has the potential to provide an in-depth understanding of a phenomenon (Woodside 2010; Simons 2009; Creswell 2007). This potential for deeper understanding is facilitated by the fact that instead of spreading resources to a large area or population, a single representative case or cases are identified and focused research is carried out. For this study I singled out four primary schools in one province and one city and from each of the four schools I sampled one Grade 3 and one Grade 4 class and teacher for assessment and for observation so that I could better understand what happens during English L2 lessons at this grade level.

When one is doing case study research it is imperative that multiple sources of information are used (Creswell 2007) which serve as a form of triangulation (Remenyi 2012). Information can be collected using observations and interviews since the investigation is carried out in natural occurring contexts. Document analysis and use of artefacts are other ways of collecting data using the case study research method. For the purposes of this study I assessed the RC and ORF abilities of the learners and also employed observations, interviews, and document analysis so as to have deeper understanding of the reading processes and factors that contributed to the Grade 3 and 4 reading performance of pupils in typical Zimbabwean primary schools.

As already indicated, a researcher can work with only one case in the investigation of some phenomenon or a number of representative cases (Creswell 2007). This therefore

means that researchers play a critical role in case study research since they have to purposively identify the case or cases and then actively carry out the data collection process. Cohen et al. (2011) argue that the researcher is integrally involved in the case, which means the researcher's personality or bias may creep into the study. However, the use of multiple methods in data collection also helps to minimise researcher personality and bias. In this study I worked with four primary schools, a scenario which Yin (2003) refers to as a multiple case study design, where the researcher replicates the procedures in all the cases and this facilitates generalisation to similar situations, and indeed in my study the replication of procedures was done in all the four primary schools. In addition, Remenyi (2012) asserts that for doctoral studies a single case may not be enough because multiple cases allow the researcher to do some comparative analysis which can provide useful insights into what is being studied. This is what partly informed my sampling criteria.

Since some of my research questions relate to the above issues I thus, deemed it appropriate to adopt the case study research strategy to explore more closely what was happening in classrooms, what literacy practices were adopted, what resources were available and how teachers perceived their pupils' reading development in the selected schools.

3.1.2 Timeline

I carried out my pilot study in early 2016 in two Gweru urban primary schools. This was meant to test my research instruments and procedures, as shall be shown later in the chapter. This early part of the research was successfully implemented and a number of adjustments were made to the instruments and procedures.

The main study was carried out from mid-2016 and it included four primary schools drawn from Gweru urban. Since the instruments and procedures had been trialled and improved on, I did not encounter serious challenges during the data gathering process except for things beyond my control, especially those that had to do with the respondents. However, the data collection process was affected by the August school holidays so some of the data were collected after the holidays. The details are presented in later sections of this chapter.

3.2 Ethical considerations

Ethics is a critical aspect of any research activity. Gray (2009: 68) states that “the ethics of research concern the appropriateness of the researcher’s behaviour in relation to the subjects of the research or those who are affected by it.” It has to do with conducting research in a responsible and morally acceptable manner. In a bid to fulfil the research ethics requirements, there are a number of factors that I took into consideration as I was carrying out my research.

On completion of my research proposal, I applied for and obtained ethical clearance from the university that I was registered with. I then used the university ethical clearance to apply for permission from the Zimbabwean Ministry of Education in that same month. Permission was granted on 30 October 2015 and the letter of permission was the one I used when I approached the schools. (See Appendix A and B for documents relating to ethical clearance and letters of permission to collect data).

The codes of ethics require that respondents participate on an informed consent basis (Flick 2009). I explained the aims and purposes of my research to the school authorities and teachers when I got to the schools. I also prepared consent forms for parents as well as consent forms for school principals and teachers although I was advised that the letter of permission from the Ministry of Education was enough. There are indemnity forms that parents or guardians sign on behalf of their children when the children are accepted in Zimbabwean schools. Nevertheless, I explained the purpose of my research to all the participants. I also made it very clear that respondents were free to withdraw at any point of the research process but no-one withdrew, save for cases of absenteeism among pupils.

Once I had ministry permission to carry out my investigation in the schools, I first met with the school principals and presented my case, requesting permission to operate in their schools. This was done to establish good relations. With the ministry permission school principals and teachers approached may not turn a researcher down so some school principals and teachers may end up grudgingly accepting the researcher in the school.

Furthermore, during the negotiation process I also assured them that I would strictly adhere to the principle of confidentiality throughout the research process, and that

pupils' results would not be disclosed to other teachers and principals. The data I collected was also safely stored in my office. I collected the test papers again after pupils had looked at their scripts to see how they performed. During data presentation and analysis, I also encrypted the schools' and pupils' names so as to protect their identity (Dörnyei 2007).

I also made it clear to the Ministry officials, school principals and teachers that the research findings were going to be published in academic journals while a copy of the thesis would be submitted to the Ministry Regional Office, in case they were interested in the research.

3.3 Research instruments

The research instruments that I used in my pilot study were the ones that I again used in the main study, with some changes and improvements where necessary. The trialing of research instruments and procedures during the pilot study helped me refine the instruments and procedures used in the main study. This helped to establish validity and reliability issues in my study.

3.3.1 Documentary survey and text analysis

Documents can be used to provide evidence in a research study. Flick (2009: 259) asserts that “documents represent a specific version of realities constructed for a specific purpose.” Documents in print or electronic form can be classified as private or public: private documents range from diaries, photos and autobiographies among others while public documents include acts of parliament, reports, committee minutes, codes of conduct, the national constitution, workshop or conference proceedings, school texts, etc.

In this study, three different kinds of texts were analysed, viz. the Grade 3 and 4 Zimbabwean primary school English language syllabus, samples of Grade 3 and 4 textbooks (Data set 1) used in the schools, and Grade 3 and 4 learners' composition exercise books Data set 2). The English syllabus is drawn from the primary school curriculum which is referred to as all the resources - intellectual, scientific, cognitive, linguistic, textbooks and other resource materials, official and unofficial available in teaching and learning environments (Luke, Woods & Weir 2010). It is from the

curriculum that we get the syllabus which shapes and sets out the parameters of the curriculum in terms of concepts, skills and allocated time. For this study the Grade 3 and 4 English syllabi were studied.

When I first started working on my research a new curriculum had been introduced across the Zimbabwean primary schools. The new syllabi that were introduced in 2015 can be accessed on <https://www.revision.co.zw/wp-content/uploads/2018/01/English-Junior>. Thus, for purposes of this study I made use of the new curriculum, though I read through the old one to find out if there were any notable differences. Syllabus documentation was the first technique that I employed during the data gathering process as this provided a broad framework, enabling me to note the Ministry requirements and expectations in the teaching and learning of English language at the mentioned levels.

The school syllabi provide teachers with information on what should be done as well as guidelines on how this has to be executed. They are guidelines on the teaching and learning processes and in Zimbabwe all schools use the same syllabi. Thus, the school syllabi are meant to direct the teachers in the execution of their duties, providing information on the content, instructional media and methods, time allocation and assessment scheme among other things. Through documents the researcher also gets access to unfiltered perspectives on the teaching and learning processes which gives the documentary survey an advantage over other methods of data collection. The syllabi helped the researcher draw a comparison between the Ministry stipulations, requirements and expectations and what was happening in the classroom. Burton, Brundrett and Jones (2014) state that most documents offer a baseline against which other sources can be compared and contrasted. This is what happened in my analysis; establishing the relationship between what is stated in the syllabi and what prevailed in the classroom. This was also a sure way to ensure validity and reliability in my research study because the document survey was used in conjunction with other approaches.

Because my study is also interested in academic language, I wanted to investigate the nature of typical Grade 3 and 4 texts in different subject areas. So as part of the document analysis, I also carried out an analysis of the readability and vocabulary profiles of the sampled Grade 3 and 4 Agriculture, Science and Technology, Social Studies (information texts) and English textbooks (narrative texts) used in Zimbabwean primary schools.

Furthermore, aspects of the learners' composition exercise books (frequency, types, errors, and teachers' feedback) were also analysed. Looking at learners' exercise books helped to shed light on various aspects of classroom practice that complemented the reading data. This also gave insight into how theoretical and practical values connect, that is, what is stated in the syllabus and what is done in the classrooms.

3.3.2 Reading assessments

Tests are also tools for data collection and are usually meant to provide quantitative data. DeFour-Howard (2015: 118) describes tests as “valuable measuring instruments which can be viewed as a set of stimuli presented to an individual in order to elicit responses on the basis of which a numerical value, for example scores can be assigned.” For this study I made use of two sets of tests (Data set 3): RC tests for all the learners who participated in my study (pilot study=171; main study =371) and ORF for a subsample of 108 pupils from both the pilot and main study. An overall description of these tests is provided in the subsections below. Details about how they differed from pilot to main tests will be explained in section 3.4.5.4.

3.3.2.1 Reading comprehension test

The reading comprehension test comprised two texts (one for Grade 3 and one for Grade 4) taken from an international standardised comprehension test. Such tests are objective, reliable and valid because they have been standardised across a given population, for example a region in a country or continent or a whole country (Cohen et al. 2011). The standardised tests that I used in this study were the Progress in International Reading Literacy Study (PIRLS) and prePIRLS tests that are available in the public domain. PIRLS tests are designed for Grade 4 learners and are conducted by the International Association for the Evaluation of Educational Achievement (IEA) and are administered across the globe with over 50 countries participating (Howie, Combrinck, Roux, Tshele, Mokoena & McLeod Palane 2016). In Africa only three countries participated in the 2011 PIRLS cycle, namely Botswana, South Africa and Egypt, while in 2016 South Africa, Egypt and Morocco took part.

PIRLS assesses reading comprehension and monitors trends in reading literacy at five-year intervals. There are two divisions within the PIRLS, namely prePIRLS (now called PIRLS Literacy) and PIRLS. The prePIRLS was specifically designed for developing countries where most children are still developing fundamental reading skills. The

prePIRLS texts are shorter (about 400-500 words), with easier vocabulary, grammar and syntax than the PIRLS texts. In prePIRLS the text on each page is followed by questions relating to that portion of text, while in PIRLS the texts are longer (around 800 words), and all the questions come at the end of the text.

I used narrative texts. The two texts I chose for the comprehension tests were *Brave Charlotte* comprising 464 words (prePIRLS) and *Fly eagle fly* comprising 863 words (PIRLS). Both the PIRLS and prePIRLS tests assess four processes of comprehension;

1. Focus on and retrieve explicitly stated information.
2. Make straightforward inferences.
3. Interpret and integrate ideas and information.
4. Examine and evaluate content, language and textual elements.

The first level is considered the easiest because it concerns recall questions relating to explicitly stated information in the passage, while inference, integration and evaluation levels are considered as higher order questions which are more demanding. The questions included multiple choice and constructed response formats across the four processes. The learners wrote only one RC test at each grade level in the pilot study. Table 3.2 below shows the distribution of the questions across the four comprehension levels indicated above.

Table 3. 2: RC question distribution

Comprehension level	<i>Brave Charlotte</i>	<i>Fly eagle fly</i>
Literal	1, 2, 6, 7, 10, 11, 12, 15, 16	1, 2, 4, 5
Inferences	5, 8, 13, 14	3,6
Interpretation and integration	3, 17, 18	7, 8, 9, 12
Examination and evaluation	4	10, 11
Total questions	18	12
Total marks	20	14

3.3.2.2 ORF test

The ORF test measured the pupils' ability to read grade level texts aloud, accurately, at an appropriate rate and with comprehension. ORF is measured by having an assessor ask a learner to read a text aloud under timed conditions, normally one minute. The learner's score is calculated by recording the total number of words read per minute

and then subtracting the number of errors to get the number of words read correctly per minute (WCPM). It is a reliable test which also correlates strongly with reading comprehension (Stanovich 1991; Piper, Schroeder & Trudell 2016). The Grade 3 pupils read a text drawn from the prePIRLS test which comprised 181 words while the Grade 4 learners read one from the PIRLS test with 266 words. Both texts were narrative and were different texts from the comprehension test. I also had a set of three questions for the Grade 3 pupils and five for the Grade 4 readers. These were mainly information retrieval questions because I wanted to find out how much information they had comprehended from the text and were not simply ‘barking’ at it.

3.3.3 Lesson and classroom observations

In this study I carried out two kinds of observations: observations of a lesson in the classroom and a kind of classroom audit of print resources. Cohen et al. (2011:456) describe observation as “looking (often systematically) and noting systematically (always) people, events, behaviours, settings, artefacts, routines and so on.” Waxman, Tharp and Hilberg (2004) state that in classroom observation learners and teachers are observed with reference to their interactions with their peers and their teachers, the purposes of the interactions, the physical setting of the learning environment where the observed behaviours occur, the material they are working with and the specific types of activities that they engage as well as the language of instruction. Thus, in classroom observation the researcher seeks to better understand the roles of the teacher and the pupils in classroom interaction as well as the impact of certain instructional activities and how all these might promote or inhibit learning. In this particular study I looked at the teaching and learning of reading literacy of Grade 3 and 4 learners, observing the physical classrooms where the teaching and learning takes place as well as what happens during a reading comprehension lesson.

For my study, I adopted the non-participant observation type. I wanted to observe what was taking place during the reading comprehension lessons without interfering with the learning and teaching processes. Being a non-participant observer allows the researcher to fully concentrate on the business of watching and recording the proceedings though it is very difficult on the part of the participants to behave as if no-one is watching them.

Carrying out classroom observation is a complex process, as the researcher has to watch the behaviours, attend to the interactions and also closely examine the classroom environment because all these factors play a critical role in promoting or inhibiting learning. This means that the researcher has the opportunity to collect data using the different senses, depending on the kind of data being collected as well as the type of observation being carried out, without disturbing the usual teacher-learner dynamics. The use of different senses helps in the validation of data and provides a richer understanding of phenomenon under study because the researcher is not relying on one sense or source.

In addition, observation takes place in natural settings or real-life situations (Cohen et al. 2011; Frankfort-Nachmias & Nachmias 2008). As a result, the researcher directly and personally gathers the data as an event unfolds which helps to obtain valid and authentic data because there is no mediation and relying on self-reports by respondents. Observation allows the researcher to see first-hands for him/herself what happens rather than depending on respondents (Frankfort-Nachmias & Nachmias 2008; Fox 1998).

Since observation takes place in natural settings it means that the physical context in which the observed activity is taking place is also very important (Dörnyei 2007). Artefacts such as furniture, charts, books, classroom layout, among others, can play a vital role in influencing the teaching and learning process. Observing the actual lesson and incorporating the physical context helps to broaden one's understanding of the phenomenon under study.

Lesson observation as a research instrument refers to a situation of watching and listening to the classroom interaction between the teacher and pupils and between the pupils themselves to better understand how language and literacy related knowledge and practices are enacted in the classroom context. My aim here was to observe the classroom practices employed by both teachers and learners in the teaching and learning of reading literacy. These classroom practices included teacher modeling reading, pupils taking turns to read aloud, class interactions on the text and silent reading among others.

Observation can be done using pen and paper (called a narrative record), or recording on a videotape or voice tape recorder. In this study I made use of a videotape recorder. Using a videotape has a number of advantages over other ways of carrying out an

observation: “comprehensive audio-visual recording can overcome the partialness of the observer’s view of a single event and can overcome the tendency towards only recording the frequently occurring events” (Cohen et al. 2011: 470). It captures a broader spectrum of an activity through the picture, including verbal and nonverbal aspects of that which is being observed. Furthermore, video recording can be viewed several times after the occurrence of the event and this facilitates an in-depth analysis of the event.

I also made use of a classroom audit checklist which listed the items that I wanted to focus my attention on (See Appendix C), to determine how print rich the classrooms were, how well furnished they were (ecology of the classroom), as well as the general presentation of the classrooms since this context can contribute positively or negatively to effective learning. The classroom audit checklist clearly demarcated what I wanted to concentrate on, which included the presence of learning materials such as charts, textbooks, chalkboards, science corner and the way in which the teacher stored resources within her teaching space, among other things. The checklist did not include the activities that learners engaged in; these activities were catered for in the lesson observation. The purpose of the checklist was to check the availability of print-based artefacts in the classrooms, their layout and condition and how print-rich the classrooms were. I used the same checklist for all the ten classrooms that I visited. I also wrote some explanatory notes where appropriate.

3.3.4 Interviews

Interviews are another rich source of data collection for case study researchers. Gray (2009: 369) describes an interview as “a conversation between people in which one person has the role of researcher.” In this case my respondents were the eight teachers of the classes that I observed, together with their respective school principals.

There are two major types of interviews; the structured and semi-structured interview. For the purposes of this study I used the semi-structured interview which entails a set of pre-prepared questions and prompts, what is also referred to as the interview schedule or guide. Other questions can also be included as the interview proceeds, to delve more deeply into responses given by participants. This is meant to provide guidance and direction during the interview process as well as to maintain a systematic

coverage of the domain under study (Dörnyei 2000). I conducted semi-structured interviews with the class teachers and the school principals.

The semi-structured interview technique is a flexible way of gathering data. Since the questions are open-ended the respondents are given considerable liberty to express their understanding, feelings and opinions about a situation or experience. Arksey and Knight (1999: 32) note that “interviewing is a very powerful way of helping people to make explicit things that have hitherto been implicit - to articulate their tacit perceptions, feelings and understandings.” Such things cannot be acquired by observing. Responses can in turn lead to new questions being asked that were not originally on the schedule. As a result, the researcher gets a richer and clearer understanding of the situation.

The interview technique is carried out on a one-on-one basis (Kumar 2005) during which the researcher records the proceedings either by note-taking or tape recording. In my study I interviewed the teachers and school principals face-to-face and manually recorded the interview responses on paper.

3.4 The pilot study

Performing a pilot study is one of the essential activities that a researcher has to do in preparation for the main study activity. Dörnyei (2007: 78) stresses its importance as follows: “Just like theatre performances, a research study also needs a dress rehearsal to ensure the high quality (in terms of reliability and validity) of the outcomes in the specific context.” It is carried out using a small sample drawn from the same population from which the final sample will be drawn. The pilot study was meant to try out my research instruments, procedures and analytic framework in order to be able to identify potential problems that could affect the quality and validity of results. It also helped to reveal the changes to be instituted in relation to the research approach, i.e. what should be improved, added, changed or even left out completely. As a result of this pilot study quite a number of changes were effected to the main study in as far as the procedures, data presentation and analysis were concerned, as will be explained below.

3.4.1 School context

I carried out the pilot study from 9 February to 4 March 2016 in two primary schools in the city of Gweru. In Zimbabwe such schools are referred to as urban schools because they are located in an urban area. I refer to them as A1 and A2. The schools represented the different socio-economic sectors prevalent in Gweru urban. Most of the pupils at A1 came from neighbouring urban plots where their parents tended to have low income jobs. The school serves children from low socio-economic backgrounds. Most learners at this school struggle to pay their tuition fees and do not have proper school uniforms; there were some who did not have shoes on their feet.

A2 is closely situated to the CBD but near the light industrial site of the city. It has some pupils from middle class families but the majority are from low socio-economic backgrounds. I chose these two schools for my pilot study because I wanted schools with similar SES but not within the same suburb. I also considered the accessibility of the schools in relation to my place of work. Both schools were within easy reach and both serve mainly low socio-economic communities.

The pilot study took close to a month, due largely to a number of factors beyond my control, for example, sporting activities and meetings which arose in the schools and at my work place, which required the rescheduling of appointments, all of which were eventually fulfilled.

In line with my main study, I focused on two classes per school, that is, one Grade 3 class and one Grade 4 class. Class sizes ranged between 35-51 children per class.

A1 School was a fairly small school; it had two classes per grade up to Grade 7 which gave a total of 14 classes. All the classes had their own classrooms which was different from A2 School, which was a big school with four streams per grade, making a total number of 28 classes. There were not enough classrooms so there was 'hot sitting' for Grades 3-6. This means that the classes took turns to occupy the classrooms in morning and afternoon shifts respectively.

3.4.2 Participants

The pilot study made use of two intact Grade 3 classes and two intact Grade 4 classes from the two schools. In all there were 94 Grade 3 pupils and 78 Grade 4 pupils, a total

of 172 pupils for the pilot. There was no equal gender distribution; in most classes, girls outnumbered boys. Whole classes participated in the RC tests while only a subsample of 36 pupils took part in the ORF tests. The 36 learners were sampled using the RC results, where I took the best 3, average 3 and lowest 3 from each class. These 36 pupils also submitted their language and composition exercise books for assessment, yielding a total of 72 books. I also interviewed the four class teachers who were taking the mentioned classes and the school principals from the two schools.

3.4.3 Research instruments for the pilot study

I managed to trial all the data collection instruments that were meant for the main study. The instruments included classroom and lesson observations, RC and ORF tests, exercise book assessment and interviews with teachers and school principals. Information about the instruments is provided in the previous section so only information to do with the pilot study is discussed in this section.

As stated, the pilot study was meant to try out my instruments and procedures to find out how feasible they were for the main study. I also wanted to uncover any challenges associated with my instruments and procedures in order to make the necessary adjustments before embarking on the main study. In this way a pilot study provides groundwork in a research project.

3.4.3.1 Reading comprehension tests

For the pilot study I used two different sets of whole class pen-and-paper reading comprehension tests, one for each grade (§3.4.3.1). The Grade 3 pupils wrote a test drawn from the prePIRLS titled *Brave Charlotte* while the Grade 4 pupils wrote a PIRLS test titled *Fly, Eagle fly*. The Grade 3 test had nine short paragraphs (464 words) with a total of 18 questions and 20 marks. The Grade 4 text comprised eight longer paragraphs (863 words) with a total of 12 questions and 14 marks (as shown in Table 3.2 and Appendix C).

3.4.3.2 Oral reading fluency tests

The ORF test focused on the pupils' ability to read grade level texts quickly and accurately with comprehension. Nine learners were sampled from each of the classes that participated: three learners each from the highest, the average range and the lowest scores from the reading comprehension test. I used different texts from the reading

comprehension texts, both drawn from the prePIRLS and PIRLS tests respectively. The Grade 3 text was titled *The lonely giraffe* and had 343 words while the Grade 4 text was titled *Enemy pie* with 762 words but I did not intend to use the whole texts, only the first paragraph, as I was only interested in how far the readers could read in one minute. I asked questions on the text that the learner had read after the one minute had elapsed (See Appendix C).

3.4.3.3 Lesson observations

This is where I videotaped classroom interactions between the teacher and pupils and between the pupils themselves. There are several things going on simultaneously in a lesson, so I needed some practice in what I would focus on and how best to collect data for later analysis.

3.4.3.4 Classroom audits

Here I concentrated on the ecology of the classroom, using a checklist to help me gather information about the classroom environment. It contained items typically found in a classroom, e.g. charts displayed in the classroom, the use of the chalkboard, furniture availability and its arrangement and the general appearance of the classroom. All this was meant to assess how print rich the classrooms were. The checklist had 31 items which fell under three sections, namely charts/print resources, file organisation and classroom environment. I looked at what the cupboards contained, how the items were arranged and also the charts that were displayed on the walls. On file organisation I looked at how the teachers compiled their files, presentation and the material in the files. I also looked at the general appeal of the classroom environment, for example, whether the classroom looked stimulating, was clean, tidy, crowded or spacious, all factors which help to promote a conducive learning atmosphere (See Appendix C).

3.4.3.5 Composition and language exercise book assessment

Because learners' development of reading literacy is reflected in the pieces of work they produce, I also examined samples from the learners' language and composition exercise books. I took books from the nine learners who had done the ORF test from all the classes that I worked with. This meant that I had 36 language exercise books and 36 composition exercise books. The purpose of the pilot here was to determine what written activities the learners engaged in, their frequency of writing, the feedback they

got from their teachers as well matching the activities to the syllabus requirements and to see how this related to their reading development.

3.4.3.6 Interviews

I had face-to-face interviews with the four teachers and two principals of schools. I wanted to test the semi structured questions that I had prepared for the interviews and find out whether I would be able to elicit the required information from participants. The interviews were conducted using separate interview schedules for the teachers and the school principals. The teachers' interview schedule had 33 questions while the school principals' had 15 questions (See Appendix C).

3.4.4 Research procedures for the pilot study

This section describes how I carried out the pilot study in the two schools and how I administered all the instruments.

3.4.4.1 Research instruments

Reading comprehension tests

When I got to each of the classes that I worked with I started by explaining to the pupils that I was going to give them a test which they were supposed to complete individually. I gave further instructions about the test before I gave out the test papers. The teachers helped to hand out the papers. I explained in English what they were supposed to do, step-by-step. However, very few pupils understood me in the first class that I worked with, a Grade 4 class, so I had to explain again in Shona (the learners' native language) and everyone then understood. Thereafter I gave instructions in both English and Shona.

Each pupil had a test paper and I expected them to read silently but almost everyone started reading aloud except for one Grade 4 class. I reminded them to read silently but several continued reading aloud. They seemed to find the passages challenging. Some pupils did not finish answering the questions while others left quite a number of questions unattended. There were also some who copied the questions instead of writing the answers.

I collected all the test papers from all the classes and marked them, following the prePIRLS and the PIRLS 2011 marking guide. The procedures seemed to work well for

some pupils but the classes generally seemed to lack familiarity with reading comprehension tests of this nature.

ORF tests

The tests were administered one-on-one to all the 36 selected learners. They were administered in the afternoon when pupils were no longer busy with classroom activities. I took the selected pupils to one corner of the classroom and called them one by one. Before they read the passage, I explained the process to each pupil and gave them instructions on the reading task. I gave each pupil time to interact with the passage before reading to me. They read the passages under timed conditions of one minute. While each pupil was reading I noted the mistakes made and noted the total number of words a pupil read at the end of the one minute. I asked each one three questions about the story as far as they had read. While the better readers managed to answer the oral questions, some struggled or failed completely to give responses to the questions. After each pupil's reading activity, I showed my appreciation by thanking them.

Lesson observations

I attended four different hour-long lessons for the pilot study; two for Grade 3 classes and two for Grade 4 classes. When I got to a class I started by talking to the teacher about my study and the purpose of the lesson observation. The teachers would then introduce me to their pupils and I explained my visit and what I would be doing during the lesson. After the introductory remarks I then found the most convenient place in the classroom to observe and videotape the lesson. I operated from one angle where I could gain access to the whole class. I found that if I maintained my position the pupils remained calm and attentive; moving around the classroom disturbed the classroom dynamics. I therefore recorded all the lessons from a fixed position and thanked the class at the end of every lesson.

Classroom audits

I carried out audits in all four classrooms and this took me about forty-five minutes per class. This activity was carried out in the afternoon when the teachers and pupils had gone for sporting activities so that I could move around the classrooms without any disturbances. I checked the resources against the items on the classroom audit. Some of the items had to be searched for because they were not readily visible. Where

appropriate I included some explanatory notes but the checklist was adequate and it yielded relevant information.

Composition and language exercise book assessment

This was done after all the other activities which involved learners were completed. I did not have problems collecting the books from the 36 learners because the teachers kept the exercise books in their classrooms.

I went through all the books myself, noting the total number of exercises, the nature of the work, how the work was marked and the feedback given to learners by teachers. I also took note of the learners' responses to teachers' comments in order to find out whether the feedback was effective or not. This was a useful albeit time-consuming exercise, though I noticed that working with both composition and language exercise books was quite cumbersome as they served different purposes.

Interviews

I conducted interviews with the four class teachers whose classes I had tested and the two principals of the two schools. I had initially planned to hold the interviews for 30 minutes but the interviews took over an hour, especially with teachers who were forthcoming in their responses. It was not easy scheduling interviews with the teachers because we had to settle for the most convenient time for them, one which would not interfere with their teaching activities as well as my work commitments. The interviews were held in their classrooms. I made use of the interview schedules that I had designed, one for class teachers and the other one for school principals. I asked the questions and they gave their responses while I captured by hand. All the participants declined to be recorded electronically. This made it difficult because I had to ask questions, and listen to the response while I captured them by hand.

Getting interview appointments with school principals was challenging due to their busy schedules. The interviews were held in their offices and these interviews took less time because there were fewer questions on their interview guide. The school principals also declined to be electronically recorded so I captured the responses by hand.

3.4.5 Pilot study results

As already mentioned, the pilot study was meant to try out my research instruments, procedures and analytic framework, so this section reports on the quantitative results of the RC and ORF tests as well as some of the qualitative findings. All the instruments (observations, tests, interviews) that I tested in my pilot study yielded useful information and this necessitated some adjustments that I later effected on my instruments and procedures (§ 3.4.5.1).

3.4.5.1 Quantitative results

The mean age of the Grade 3 learners was 8.2 and that of the Grade 4 learners 9.2. The Grade 3 RC test had a Cronbach alpha index of .66. Normally .70 is regarded as acceptable (Fraenkel & Wallen 1996). The Cronbach alpha index for the Grade 4 RC test was .74 which is acceptable.

The application of the Shapiro-Wilk test for normality showed that the data were not normally distributed: $W(df) = .88(94)$, $p = 0.00$ for Grade 3, and $W(df) = .92(78)$, $p = 0.00$ for Grade 4. As a result, nonparametric tests were used to further analyse the data.

Table 3.3 shows basic descriptive statistics on the reading comprehension tests administered to Grade 3 and 4 respectively, using percentage scores since the two tests had different score totals. The statistics clearly show that overall neither grades did well at all. Grade 3 learners had a mean RC score of 19.5%. The raw scores ranged between 0 and 18, the wide dispersion of scores showed variability in performance, with a standard deviation (SD) of 13.3%. The Grade 4 learners had a mean score of 23.5%. The minimum raw score was 0 while the maximum score was 10; with a large SD of 15.1% for the Grade 4 learners. The Grade 3 upper bound percentage (22.24) was higher than the Grade 4 lower bound percentage (20.08) which indicates an overlap between the two grades, thus their performance is not singularly different. The same applies when comparing the girls' and the boys' lower and upper bounds within the grades; the results show no large gender differences, generally their performance was homogenous.

Table 3. 3: Descriptive statistics for Grade 3 and 4 RC tests

	No	No with zero %	Min %	Max %	Mean % (SD)	S.E.	CI Lower Upper Bounds
Grade 3	94	6	0	90	19.5 (13.3)	1.4	16.8 – 22.2
25 th percentile					10		
50 th					17.5		
75 th					25		
Grade 3 girls	49		0	90	22.5 (15.)	2.2	18.2 – 26.8
Grade 3 boys	45		0	45	16.3 (10.3)	1.5	13.3 – 19.4
Grade 4	78	2	0	71.4	23.5 (15.1)	1.7	20.1 – 26.9
25 th					14.3		
50 th					21.4		
75 th					35.7		
Grade 4 girls	47		0	71.4	25.7 (2.33)	16	21 – 30.3
Grade 4 boys	31		0	50	20.3 (2.37)	13.2	15.5 – 25

The table also shows how the girls and boys performed in their grades. It was the girls from both grades who scored the highest marks; 90% and 71.4% respectively. Among the Grade 3s only one girl managed to score a pass mark of 18/20 (90%) out of the two classes while the highest among the boys had 9/20 (45%) and 6.4% of the class (6 learners) scored zero percent. Among the Grade 4 learners a girl again scored the highest mark of 71.4% while the highest among the boys scored 50%. Even learners at the 75 percentile who are expected to do better did not perform well in either grade.

A Mann-Whitney test was carried out to test for significant difference in RC between boys and girls across the grades. The results indicated that there was a significant difference between boys and girls in Grade 3: $U= 834.5$, $N\ girls= 49$, $N\ boys= 45$, $p= .041$. However, there was no significant difference for gender among the Grade 4 learners: $U= 585.5$, $N\ girls= 47$, $N\ boys= 31$, $p= .139$.

Table 3.4 below shows the four levels of comprehension questions together with the means for each question type. From the table it can be noted that the Grade 3 and 4 learners' performance on the literal questions (32.2% and 14.1% respectively) was

higher than performance on the other question types. Both grades displayed difficulty with the higher order questions.

Table 3. 4: Performance according to question types

	No.	Raw score mean (SD)	% mean (SD)
Grade 3	94		
Literal		3 (1.7)	32.2 (18)
Inference		0.2 (1.2)	1.0 (5.8)
Integration		0.1 (.4)	0.7 (1.7)
Evaluation		0.6 (.5)	2.9 (2.5)
Grade 4	78		
Literal		2 (.9)	14.1 (6.5)
Inference		0.9 (.8)	6.5 (6)
Integration		0.2 (.6)	1.7 (4)
Evaluation		0.2 (.4)	1.3 (2.8)

Overall, neither grade performed well across all question types, though their performance was worse on the higher order questions.

Table 3.5 below shows the descriptive statistics for Grade 3 and 4 ORF. The Grade 3 mean was 49WCPM, at the beginning of the year. The learners were also grouped according to ability groups (good, average and poor) based on their performance in the RC test.

Table 3. 5: Descriptive statistics for Grade 3 and 4 ORF tests

	No.	Total mean words read	Total mean errors	Mean wcpm (SD)	Min wcpm read	Max wcpm read
Grade 3	18	56	6	49(25.5)	3	87
Good RC		71	6	64(13.1)	52	85
Average RC		70	6	64(12.7)	50	87
Poor RC		29	8	20(18.1)	3	49
Grade 3 girls	8	69	6	63(25.7)	5	87
Grade 3 boys	10	46	7	39(2.2)	3	62
Grade 4	18	86	8	70(30.5)	19	137
Good RC		97	5	92(25.4)	67	137
Average RC		84	10	70(28.1)	45	120
Poor RC		58	10	47(19.2)	19	76
Grade4 girls	11	87	9	75(34.1)	26	137
Grade 4 boys	7	69	7	62(23.7)	19	87

The Grade 3 ORF mean of 49wcpm indicated that they were generally slow readers, reading five words more than Grade 2 learners in Broward County’s (2012) lowest category viz. A1 for Non-English Speakers (i.e. learners who demonstrate very little understanding of what they read). The Grade 3 results were also collected at the same time (i.e. start) of the academic year as that of the Broward County (2012) ESL learners. The girls read faster than boys (63wcpm versus 39wcpm). The Good and Average learners read at seemingly the same level (64wcpm) while the Poor read much more slowly (20wcpm), 29wcpm slower than the overall grade mean.

The Grade 4 learners read an average of 70wcpm but the standard deviation showed a lot of variability. They also fell within A1 category when using the Broward County (2012) norms, which means they are classified as Non-English Speakers, just like the Grade 3 learners. Here too, girls read faster than boys (75wcpm versus 62wcpm) but they made more errors on average (9 versus 7). Generally, there was an increase in the number of words read by Grade 4 learners compared to Grade 3 learners, though surprisingly they made slightly more errors on average (6 versus 8 respectively).

The Mann-Whitney test was used to test for gender differences between the grades. While significant gender differences obtained among Grade 3 learners (U= 11.0, N

girls= 8, N boys= 10, $p= .009$), they did not for Grade 4 learners ($U= 30.0$, N girls= 11, N boys= 7, $p= .479$).

A correlation test between ORF and RC was also carried out with both grades. The Grade 3 ORF and RC Spearman correlation indicated a strong positive relationship ($r_s = .95$, $p < .00$). Among the Grade 4 learners a correlation ($r_s = .68$, $p < .00$) also indicated a positive correlation between ORF and RC, but not as robust as in Grade 3.

3.4.5.2 Outcomes from the qualitative results

In this section I present a brief description of what transpired during the qualitative data collection for the pilot study and also touch on a few findings from the lesson observations, classroom audits, interviews and the exercise books that I browsed through to get a feel for the learners' writing activities.

The pilot was meant to trial my qualitative instruments and procedures in preparation for the main study. The lesson observations and classroom audits worked well. I managed to capture reading comprehension lesson proceedings as well as the physical classroom environment using my tablet though I encountered problems during the process because the memory of the tablet was small. In all the four classes, learners took turns to read, some teachers modeled reading while others did not. There was teacher-learner and learner-learner interaction in the classrooms and learners were given group tasks and individual work. However, through the observations I realized that I had to make some adjustments to some of my instruments before setting out for the main study and these are clearly spelt out later in this section.

From the lesson observations I managed to capture the interactions in the classes, the learners' seating positions and literacy activities among others. I learnt that generally the two schools did not have many resources which are key to effective learning and teaching of reading literacy. The learners shared textbooks at varying ratios of 1:2, 1:3 and even 1:4 depending on the school. I also observed that some of the books were uncovered, old and torn. Some learners did not even have exercise books and pens while in one school some classes learnt outside because of a shortage of classrooms.

The classroom audits helped me to gather information about the classroom environment, the state and quantity of available resources and the general ambiance of the classroom. I noted from the classroom audits that the classrooms had inadequate furniture. The charts displayed on the walls were old and most of them had information

about tenses, opposites, shapes and pictures from magazines but I was made to understand that the charts are displayed throughout the year, which means children might end up not taking notice of the charts because there would be nothing new about them. The National Institute of Child Health and Human Development (NICHD 2000) asserts that the availability of resources is a motivator to read; the schools in question were seriously under resourced which on its own has adverse effects on reading literacy development.

From the reading lessons that I observed in all the four classes, learners were reading passages from their English textbooks. In some classes the teachers modelled reading but in others they did not. In all the classes learners took turns to read a section of text, in a round robin manner, and the good readers were given the chance to read more than the struggling readers. During all the four observations that I carried out I noticed that most pupils had problems with fluency, meanings, pronunciation of words, with some still pointing at the words with their fingers while reading. Some of the teachers tried to correct the learners but others just ignored the mistakes. Some teachers even made mistakes themselves during the lesson.

The table below presents the bio data for teachers and school principals who participated in the pilot study. Not surprisingly all of the participants were women aged between 37 and 58, since the teaching profession is dominated by women, especially the teaching of lower primary classes (Petersen & Petker 2011).

The majority of teachers were in their 40s and held Diplomas in Education which is currently the basic qualification for one to be able to practise in Zimbabwean primary schools. School principals were older, better qualified, more experienced than the teachers.

Table 3. 6: Teachers' and principals' bio data

	Gender	Age	Qualification	Duration teaching Gr3/4or as head
Teachers				
A1	F	37	Dip. Ed.	4
A2	F	57	Dip. Ed.	5
B1	F	44	Dip Ed.	7
B2	F	49	Certificate in Ed	11
School principals				
A	F	58	Master of Ed.	21
B	F	57	Master of Ed.	11

I trialed my interview questions with both teachers and school principals. The questions helped me acquire quite useful information about the interviewees' perceptions of reading literacy development as well as the classroom and school practices functional in their respective schools in as far as promoting reading literacy development was concerned. Through the trialing of the interviews I also discovered that there were questions which needed revisiting on my interview schedules, as shall be outlined later. On the whole, this part of the pilot study was helpful because I also gained some experience in carrying out observations using a digital camera as well as holding interviews with respondents.

From the interviews I also gathered that the schools had no libraries or reading corners in the classrooms, so pupils did not have easy access to books or the opportunity to practise independent reading; they depended on the reading activities carried out in the classroom. The learners do not take the textbooks home and although this is a way of safeguarding the textbooks, it denies learners the opportunity to read outside classroom time.

From the interviews with both school principals and teachers, it emerged that they agreed that reading was key to learning as shown by the following statements; *Reading is the core aspect of learning. Reading facilitates the learning of the other subjects. Reading makes pupils understand concepts faster and easier.* However, there seemed to be a disjunct between the high regard in which reading was held and actual classroom

practices. There were some who said they did not read during the time when pupils engaged in individual reading and others did not model good reading to their learners.

However, both the school principals and teachers agreed that more was supposed to be done by the Ministry officials, educationists and communities in as far as improving reading and reading comprehension. They suggested that the pupil-teacher ratio be revised downwards, more time be allocated to reading but they also highlighted that it was the parent or Ministry's responsibility and there was nothing the school authorities could do. They also lamented the harsh economic conditions that the country is facing which resulted in some parents being unable to pay fees or provide necessary school requirements for their children. They also pointed out that such external factors adversely impacted the learning and teaching process and it was the government's responsibility to fix such challenges.

Learners' exercise books showed the challenges that learners had, in both composition (creative) and language exercise books. Most learners had challenges with sentence construction, spellings and tenses. The most common composition types were descriptive compositions, for example; *My teacher, My friend, My school*. There was no variety in the composition topics across the grades and schools. I also noted that most teachers did not give elaborate comments. Some would write one- or two-word comments such as *Good, Work hard, Dirty*, others gave a mark only.

3.4.5.3 Discussion of pilot study

The main aim of the pilot study was to trial my research instruments, procedures and analytic framework in order to establish what would work in the main study. Indeed, the pilot study proved to be quite helpful since from the results and findings I managed to identify what worked and what needed to be fine-tuned or discarded.

The Grade 4 reliability score for the RC test was good while the one for Grade 3 learners was below the acceptable score. However, I proceeded to administer the Grade 3 test to both grades in the main study because of the low performance that learners exhibited across both grades in the pilot study. The prePIRLS is an easier version of the PIRLS test meant for ESL learners in developing countries so I decided to administer it to both grades instead of giving learners different tests so I could find out more about the performance of learners in the main study.

Overall, the RC results for both grades showed that the learners did not perform well, with a Grade 3 mean of 19.5% and a Grade 4 mean of 23.5%. In terms of comprehension difficulty, as expected, learners from both grades found the literal level questions relatively easier (Grade 3: 32.2%; Grade 4: 14.1%), even though the mean scores for the literal questions for the grades in question were themselves not high. However, the majority did not do well even at this level. The higher order questions (inference, integration and evaluation) were a serious challenge for the learners from both grades. This could be a result of how the learners were taught reading comprehension, with an emphasis on choring and correct pronunciation at the expense of meaning construction as noted during lesson observations. During lesson observations I also witnessed that most of the oral questions after reading a text were explicit recall questions, teachers seemed not to engage learners in higher order thinking.

The Grade 3 ORF mean of 49wcpm showed that they were generally slow readers, with poor comprehenders being the slowest. The Grade 4 learners' 70wcpm was also below what L2 readers can achieve at this grade level, e.g Intermediate English speakers in Grade 4 at the 50th percentile can read 103wcp (Broward County 2012). The fact that some learners failed to finish the RC test, and that instead of reading silently learners could be heard reading aloud, with some pointing at the words while reading, suggest that the learners were still struggling with mechanical decoding aspects of reading which slowed their reading and made it difficult to focus on comprehension and hence the poor results (Rasinski 2003). It may also suggest that they lacked reading practice of extended texts as well as familiarity with such kind of texts; indeed, the interview results showed that the teachers and school principals lamented the lack of resources in their schools which might have contributed to the poor performance.

Overall there were no significant differences in ORF between the Grade 3 and Grade 4 learners, indicating no upward development of learners' reading fluency from Grade 3 to 4 as expected.

Strong positive relationships obtained between ORF and RC performance, although the relationship was higher in Grade 3 than Grade 4. This concurs with other studies on the relationship between ORF and RC (e.g. Fuchs, Fuchs, Hosp & Jenkins 2001; Clarke, Truelove, Hulme & Snowling 2013; Pretorius & Spaul 2016).

The low and slow performance of the learners generally, plus the fact that there was no significant difference in performance across the grades, contributed to my opting to use a single text, viz. the prePIRLS test, for both grades in the main study. Although the reliability index for the prePIRLS passage in the pilot was below the expected score (.66), it was a standardised test that had proved reliable in other contexts (Howie et al. 2017). By holding the text passage constant, one could see more reliably whether performance improved from Grade 3 to Grade 4. This also prompted my decision to stick to a narrative text and not introduce an information text in the main study. Learners progressively move from narrative to information texts; if they have challenges with narrative texts, which are deemed more familiar and easier compared to information texts, then it can be assumed that information texts will be more challenging.

In sum, both the quantitative and qualitative results revealed quite a lot about the instruments and procedures used in the pilot study. The results highlighted some important trends and also concurred with what other scholars have established especially on the strong positive relationship between RC and ORF.

3.4.5.4 Amendments from the pilot study

After carrying out the pilot study, quite a number of issues came up, especially relating to the instruments and procedures, and these necessitated some changes to the instruments, procedures and data analysis process, as explained in this section. All the changes were effected before I started on the main study. The adjusted/amended instruments are included in the Appendix section.

3.4.5.4.1 Instruments and changes made

RC tests

- The passages which I used seemed long and challenging for all the pupils who participated in the pilot study – they took long to finish the test and some could not even complete it. Because overall performance across the grades was so low, I decided to use only the prePIRLS test for both the Grade 3 and Grade 4 classes in the main study. However, to build in some test differences between the grades, for the Grade 4 text I presented the comprehension questions at the end of the passage because I wanted it to conform to the PIRLS format, which is also similar to the style of presentation that is in their textbooks. No changes were made to the original comprehension questions - all of them were retained

without any alterations (See Appendix C) for copies of the comprehension tests).

- The ORF passages were also retained (See Appendix C for final copies of the ORF tests).

Classroom audits

- Nothing was changed here (See Appendix C for a final copy of the classroom audit checklist).

Interviews

- Interviews with school principals and class teachers were maintained but with some changes on the questions, for example, questions which required similar information were merged (See Appendix C for final copies of the interview schedules).

Exercise book assessment

- Taking in the learner exercise books was a useful trial exercise as it enabled me to assess the typical work that learners were given as individual tasks by their teachers. However, I found that the composition exercise books provided more useful information than language exercise books because learners wrote the compositions on their own, even where they were given some guidelines. So, for the main study only the composition exercise books of those pupils who participated in the RC test and ORF test were considered, to allow more intensive analysis.

3.4.5.4.2 Procedures and changes made

Reading comprehension tests

- I followed the basic PIRLS guidelines on giving instructions to learner but I realised that explicit instructions in both English and Shona were required when administering the RC test, especially with the Grade 3 pupils. Unlike PIRLS procedures, I decided to allow the pupils to flip through the pages and look at the pictures before they started working on the test as a way of settling down and familiarising them with the activity. Also, unlike the PIRLS guidelines of 40 minutes per passage, I allowed the learners one hour because comprehension

activities are one hour long in Zimbabwean primary schools and I decided to stick to what the learners were used to.

ORF tests

- I noted that it helped learners to read the titles and look at the pictures before they started reading under timed conditions, so I made sure to include this in the procedures for the main study. Timing only started with the first paragraph (i.e. it excluded reading the title).

Lesson observation

- Lesson observations were increased to one hour per lesson because the 30 minutes that I had allocated during the pilot study were not enough and also did not tally with the time for comprehension exercises in Zimbabwean primary schools as per Ministry requirements.
- The tablet that I had used during the pilot study to record the RC lessons proved inadequate and was replaced by a digital video camera.
- I discovered that filming from one position was more effective and less disruptive than moving around the classroom during an observation.

Classroom audits

- During the pilot study I found that the thirty minutes that I had scheduled for the classroom observations were inadequate so for the main study I scheduled at least 45 minutes per class.
- It was more conducive to carry out the audits in the afternoon when the classrooms were empty.

Interviews

- The interviews with teachers had been scheduled to last 30 minutes but they were changed to at least one hour long, while the school principals' interviews were 30 minutes long.

Composition exercise book assessment

- Not making photocopies of the exercise books during the pilot study proved to be totally ineffective, so for the main study I made sure to make photocopies of all the material that I needed.

3.5 The main study

The main aim of this study was to investigate the development of reading literacy among Grade 3 and 4 pupils in Zimbabwean primary schools, guided by the research questions specified in the introduction of this chapter (See Section 3.0). I started working on the main study from July 2016 to October 2016. The research instruments that were used to carry out the pilot study were the same instruments used in the main study, though some amendments were instituted to some of the instruments and procedures as indicated above. This section presents information on the population and sample, the research instruments and the procedures as they were used in the main study.

3.5.1 The population and the sample

Frankfort-Nachmias and Nachmias (2008:179) define the study population as the, "... aggregate of all the cases that conform to some designated set of specifications." Thus, a study population refers to all the items that have the capacity to provide the researcher with relevant information, be they human participants, objects or any other elements which meet a particular criterion specified for a research investigation. It is impractical to collect data from all the potential elements so one needs to work with a smaller section of the population (Perry 2011; Frankfort-Nachmias & Nachmias 1996). Kumar (2005: 164) refers to sampling as, "the process of selecting a few elements from a bigger group to become the basis for estimating or predicting the prevalence of an unknown piece of information, situation or outcome regarding the bigger group." Thus, a sample is a subset of the population under study and this subset should be representative of the population in order to enable generalisations to the larger group. The more representative the sample is of the population, the higher the accuracy of the inferences and the results can be generalised in a much better way (Alvi 2016). A sample makes the whole data collection process affordable, possible and be able to produce an in-depth investigation of the elements under study.

For the purpose of this study I used nonprobability sampling, where selection depends on the researcher's subjective judgment (Frankfort-Nachmias & Nachmias 1996). When using this technique there is no equal chance for every element of the population to be selected to participate in the study.

I used purposive sampling, where I selected the schools according to the expectations of my study and also their accessibility. Purposive sampling is also referred to as judgmental sampling, where “the researcher deliberately selects the subjects against one or more traits to give what is believed to be a representative sample” (Gray 2009:152). The fact that this type of sampling depends on the subjective judgment of the researcher is its main weakness (Gray 2009). However, there are other scholars who see it as a strength because the researcher is identifying and incorporating study elements that have information or experience in the phenomenon under investigation (Perry 2011; Frankfort-Nachmias & Nachmias 1996).

3.5.2 Research context and participants

In this study, the population is all the Grade 3 and 4 learners in Zimbabwe who use English as LoLT. I then purposively sampled four primary schools in Gweru district, as this was the district most easily accessible to me. In my sampling criteria I tried to make sure that the schools represented the various socio-economic sectors found in Gweru urban. Some of the schools in Gweru are located in the city centre and most pupils in these schools come from middle class families. Some schools are situated in industrial suburbs and in such schools, pupils are mixed, coming from both middle and low SE families. Most old high-density suburbs have old and dilapidated schools while medium density suburbs are more recent and most residents are middle class families and the schools are better resourced. I chose one school from each of the four sectors, to try to reflect the various socio-economic sectors represented by those schools, as well as to establish a comparative analysis in the teaching and learning of reading in L2 classrooms. I worked with intact groups/classes from each school (this is typical of studies in education, except for large scale studies) of Grade 3 (n= 192) and Grade 4 pupils (n=186).

At each school principals assigned me the classes that I was supposed to work with so it was not possible for me to do random sampling of the pupils or classes. The reasons for their selection of those specific classes were not disclosed but the general sentiment that I picked up from the informal conversations with the principals was that they were giving me the classes where I would get the best assistance from the teachers. At one school the school principal explicitly told me that he was going to ask one of the Grade

4 teachers who was doing her Master of Education studies to assist me because she was the one who understood research issues better.

3.5.3 Research instruments

In light of some of the changes made after the pilot test, this section serves to recap the research instruments used in the main study taking note of the changes effected. However, since a lot has already been described about the research instruments, this section briefly recaps information on the main study research instruments.

- Documentary survey: I made use of the Grade 3 and 4 *English Language Junior (Grade 3-7) Syllabus (2015-2022)*, the revised version.
- Grade 3 and 4 texts: I analysed information texts from Science and technology, Social studies and Agriculture textbooks for both grades, as well as narrative texts from English textbooks.
- Lesson observations: These were of reading comprehension lessons. I looked at the introduction, body and end of the lesson as well as teacher-pupil interaction, pupil-pupil interaction, and reading activities during the lesson. I used a video camera to capture the lessons, which were then transcribed and analysed.
- Classroom audit observations: I carried out classroom observations to find out more about the physical classroom environment and its resources. I was guided by a classroom audit checklist which outlined the items to be addressed.
- Reading comprehension tests: I made use of the prePIRLS test used in the pilot for assessing both grades; however, the presentation of the texts differed. The prePIRLS text administered to the Grade 3 pupils had short paragraphs with at least two questions posed after each paragraph. I maintained the originality of the test for the Grade 3 learners, while for the Grade 4 pupils all the questions were presented at the end of the text, as in the format for the PIRLS test, and also according to how the learners' prescribed texts are usually presented.
- Oral reading tests: The ORF tests came after the RC tests because I used the RC results to sample three groups of participants in this test according to their RC performance (those from the 25th, 50th and 75th percentiles). Grade 3 pupils read a text from a prePIRLS text while the Grade 4s read a PIRLS text.
- Composition exercise book assessment: The pupils who participated in the ORF test were the ones whose books were collected for this exercise. For the main

study I made use of only the composition exercise books so as to ascertain how pupils wrote individual pieces of work as well as the feedback that the teachers gave to their pupils. It was meant to complement the lesson observations and performance on the reading assessments.

- Interviews: These were the last activity in all the schools where I interviewed the teachers and school principals. The school principals' interviews were shorter than the teachers' since teachers are the reading practitioners.

3.5.4 Research procedures

In this section I briefly recap the procedures followed in the main study. It is important to note that the study incorporated two different aspects of qualitative research (documentary survey on the one hand and observations and interviews on the other). Consequently for ease of reference, detailed procedures for the documentary survey will be presented in Chapter 4 while procedures for observations and interviews will be given in Chapter 6.

Documentary survey

I started by looking at the Grade 3 and 4 English Language syllabi to familiarize myself with the aims, objectives, topics and methodology among other things so that when I got into the schools I would be well informed. I also looked at texts from Grade 3 and 4 narrative texts as well as Agriculture, Science and Technology and Social Studies textbooks. I included content subject texts because they are written in English which is the LoLT, and because information texts serve as a critical resource in 'reading to learn; from textbooks. My focus here was on the texts' readability ease, vocabulary, academic language and the overall presentation of the texts.

Reading comprehension test

I explained to the pupils that they were going to write an RC test and also that I was going to mark the test myself so that they become aware of the test proceedings. All the pupils present in the appointed class on the day of my visit were administered the RC test. The test was written during the comprehension slot for that particular week and was one hour long. I issued out the test papers to each pupil with the help of the class teacher. I then explained step by step how they should enter their personal details on the test papers (name, surname, gender, age, grade and school). I used both English and

Shona to make sure that they understood the instructions. I asked them to flip through all the pages before reading as a way of helping them settle down. I explained to them how they were supposed to respond to multiple choice and constructed response questions. I told the pupils to read the text silently more than once before they answered the questions. I collected all the test papers after an hour even though some pupils did not manage to finish the test. I allowed them to use a whole hour because their comprehension periods are one hour long as stipulated by the syllabus.

I did the marking, scoring and recording of the marks on my own. Responses were marked according to the prePIRLS 2011 guide.

ORF test

I took the nine pupils sampled for this particular test to a secluded area; either a storeroom or some quiet corner in the classroom. This exercise was done in the afternoon. I followed the same procedure as the pilot study.

All the reading assessment data was captured on SPSS.

Lesson observations

I carried out a total of eight lesson observations (four for Grade 3 and four for Grade 4) which were each one hour long per lesson. The lesson observations were done during the normal English language lesson as indicated on the class timetable. This was done during the reading comprehension lesson. All the classes had a double slot for the reading comprehension lesson. In each class I was introduced by the teacher after which I explained the purpose of my visit to the pupils.

I tried to minimize my movements with the video camera in order not to disrupt the lesson. I captured the interactions between the teacher and pupils as well as pupil-pupil interaction. When it was time for pupils to read the text of the day I also captured the reader at each particular moment as well as other activities that were taking place as the lesson progressed, making sure that I did not miss critical aspects of the lesson. At times it was difficult to decide what to focus on because things happened concurrently.

I ran the video camera up to the end of the lesson. I then talked to the teachers because after the lesson all of them just wanted to find out whether I benefitted or not from the observation. I then thanked them and their children before leaving. I carried out one

activity per class per visit because I was asked to follow the teachers' timetables and I also did not want to give the learners unnecessary pressure that would negatively impact on their performance.

Classroom audit

Classroom observations were carried out in all the eight classrooms whose teachers and pupils participated in the study. I carried out the classroom observations after carrying out all the research activities which involved pupils' active involvement. I carried out the observations in the afternoon during the time when pupils and teachers had gone for sports. That worked well because the classrooms were empty, so there were no disturbances.

I made use of an observation checklist which guided me on what to focus on. I moved around the classrooms identifying and indicating what I came across, where the items were not available I indicated with an X while a tick indicated the availability of an item. I also made a few notes where appropriate. It took me from 30 to 45 minutes to complete the exercise.

Composition exercise book assessment

I sampled nine composition exercise books from each class from the same pupils who participated in the ORF test. I made photocopies of all the 72 books so that I would have a reference point during the analysis and returned the books to the classes afterwards.

Interviews

When I carried out interviews for my study I worked with eight teachers from the eight classes that participated in the study and four principals from the same schools.

I made use of separate interview guides for the two groups. For teachers the interviews were held in their classrooms while the principals of schools were interviewed in their offices. Since we had already interacted with one another, I explained the purpose of the interviews and then got into the interview session. I used pen and paper to record the interviews because all the interviewees refused to be recorded on camera. The interviews with teachers took longer, taking about an hour or more depending on how elaborate a respondent was, while the school principals took about 30 minutes. I wrote

down their responses as they were reluctant to be recorded. I thanked the respondent at the end of each interview session.

3.6 Conclusion

The use of the mixed method research design in this study was based on the research questions to be addressed. This then impacted on the sampling techniques, research instruments, the procedures as well as the data presentation and analysis process. Of importance to note again in this chapter was the pilot study and the role it played in refining the instruments and procedures used in the main study.

Chapter 4: Document analysis

4.0 Introduction

In this chapter I present qualitative and some quantitative data analysis of the syllabus documents and textbook extracts from Data set 1 that I gathered for my study in Phase

1. The chapter addresses the first two research questions, viz:

RQ1: How do the policy documents position reading literacy in the elementary stage of primary schooling?

RQ2: How do Grade 3 and 4 narrative and information texts used in Zimbabwean schools differ in terms of their text and lexical profiles?

Content analysis of the syllabus documents and readability analysis and vocabulary profile analysis of text extracts from Grade 3 and 4 textbooks were undertaken to investigate more broadly the concept of reading literacy in this study. The chapter begins with an analysis of the Grade 3 and 4 Zimbabwean syllabus documents and then moves on to an examination of samples taken from Grade 3 and 4 textbooks.

4.1 Syllabus analysis

This section addresses the following research question:

RQ1: How do the policy documents position reading literacy in the elementary stage of primary schooling?

The Department of Curriculum Development and Technical Services is responsible for the production and distribution of the primary and secondary school syllabi in Zimbabwean schools. The same school syllabi are used in all the schools (state and private) at both primary and secondary levels. The Zimbabwean syllabus for Grade 3 and 4 is contained within one large volume entitled *English Language Junior (Grade 3 - 7) Syllabus (2015 - 2022)*. As explained in Chapter 1, in the Zimbabwean education system, primary education is divided into two phases; Early Childhood Education (ECD – Grade 2 called the Infant stage, and Grade 3-7 called the Junior stage. Each stage has its own syllabus document, so Grade 3 and 4 fall under the junior school and in Grade 4 English officially becomes the LoLT, even though in reality it has been the LoLT since the beginning of school (cf. Chapter 2). It should also be noted that due to the

pursuance of inclusive education the same syllabus is used for the visually impaired and the hard of hearing, which is why it refers to observing, signing, visual and tactile skills among others.

4.1.1 Analytic framework and procedures

Qualitative content analysis as well as word frequency analysis were used to analyse the syllabus document to investigate the position of *reading* in the Grade 3 and 4 Zimbabwean syllabus documents relative to other language learning domains.

The syllabus is a teaching manual in that it provides information on what and how to teach (Thompson 2007; Albers 2003) which means that the appropriate content, resources and activities should be clearly specified for teachers to follow and enact with minimal difficulty. This is crucial for the Zimbabwean education system because all schools nationwide use the same syllabus documents and learners sit for the same examinations which means a common interpretation and implementation by teachers in Zimbabwean primary schools is necessary.

Hoadley, Murray, Drew and Setati (2010) assert that a curriculum should be coherent, clear, unambiguous and open to assessment. The syllabus stems from the curriculum which means it has to have the same characteristics as the curriculum. Thus, the Grade 3 and 4 English syllabus documents was analysed following Hoadley et al.'s (2010) stipulations which provided a framework for examining how the document was structured, its content, and the resources and activities necessary to achieve the specified outcomes. The coherence of the material relates to finding out whether there was a smooth connection between the preamble, aims, outcomes to the methods of teaching as well as the content in the two grades.

Also, my analysis endeavoured to establish the philosophy and major aims of the syllabi, whether they were clear and explicit, finding out how those would be achieved through the syllabus content and identifying the occurrence of key concepts associated with reading literacy as found in the syllabus.

I also looked at whether the information was specific, unambiguous and explicit, and whether the end users (teachers) could interpret it clearly. If teachers come up with different interpretations, especially for the Zimbabwean situation where the public examinations are centralised, learners might be disadvantaged.

I started by looking at the preamble, aims and outcomes of the syllabus. I then went on to carry out a word frequency analysis of the reading literacy key terms and other lexical items in the syllabus document which were relevant to this study, using a free online word cloud programme available at wordclouds.com. The word cloud analysis provided a summary of all the words in the two documents and their frequencies which helped to determine the concepts which the documents foreground in relation to reading literacy key terms. I pasted the separately transcribed syllabus documents onto the word cloud platform one at a time and the programme automatically processed the word frequencies of the syllabus documents. I then compared the most frequent words for each of the syllabus documents to the key terms in my study.

4.1.2 Analysis of the syllabus

The Grade 3-7 Zimbabwean syllabus comprises 58 pages and is structured in the following manner:

- The preamble is the first item (p.1) in the syllabus and it spells out the introduction, rationale, summary of content, assumptions and the cross-cutting themes.
- Then follows a section entitled ‘The presentation of the syllabus’ which outlines the aims, objectives, methodology and skills (pp1-3).
- The main body of content includes the scope, sequence, resources and activities for Grade 3-7 (4-53).
- The last section is about the assessment scheme (pp54-58) at the end of the seven-year primary course.

I first identify and analyse the aims and objectives of the syllabus which have a direct bearing on the teaching and learning of reading literacy at Grade 3 and 4 levels. It should be noted that the aims and objectives presented below apply to all grades (3-7) since the syllabus is compiled as one document.

In its preamble the syllabus document states that it covers the learning and teaching of the English language, considering the importance of English as a tool for communication, cultural, political, religious, social and economic development. Though the preamble is clear it provides a very broad, holistic scope of the areas that English is supposed to be used as a tool for communication but does not provide an

explanation on how this will be done. Significantly, it does not explicitly use the term academic language although it mentions the role of English in studying other learning areas below (albeit mentioned in passing). Academic language is one kind of communicative tool – arguably the most important – needed throughout schooling, especially since English is the LoLT in Zimbabwe but it is not specifically named, foregrounded or elaborated on.

It goes on to state that “The syllabus seeks to prepare learners to use English in studying other learning areas across the curriculum ...” (Ministry of Primary and Secondary Education English Language Junior (Grade 3-7) Syllabus 2015:1). This is about the closest it comes to academic literacy, though it does not name it as such nor discuss the attributes (e.g. decontextualized use of language, large vocabulary, formal register). From this stage onwards English is the LoLT in all the other subjects save for indigenous languages. Not much detail is provided as to how the preparation happens, nor is it explicitly stated that much of “studying other areas” happens through textbooks and reading. The preparation aspect might suggest the introduction and development of academic literacy skills (decontextualized use of language increases, use of vocabulary from mid and low frequency levels, more varied grammatical structures and increased use of passives) which applies to all the subjects in the school since English is the LoLT. Gibbons (2009) states that by around third grade there is an increase in literacy-related tasks and some use of ‘academic’ and subject related English. It is clearly stated in the preamble that the syllabus promotes the use of the Communicative and Functional approaches to the teaching of English language which is relevant to ESL contexts, though there is no further explanation of what these entail, what is expected and how the teaching and learning experiences should be organised and delivered through these approaches. A brief comparison with the South African syllabus document for the Foundation Phase (Grade 1–3) shows that the latter syllabus refers to Additive Bilingualism and goes on to explain what it entails and how it should be carried out in the teaching and learning process (Department of Basic Education (DBE) 2011).

The Zimbabwean syllabus specifies the core language skills (listening, speaking, reading and writing) and its subsequent organisation is according to the language skills. The role of reading in learning is not foregrounded at all - reading is simply one of four skills.

From the preamble the syllabus goes on to provide the following aims:

“The syllabus should enable learners to:

- Develop the four basic skills: listening, speaking, reading and writing in the English Language with emphasis on visual, manual and tactile skills.
- Prepare for present and future studies in the English Language and other learning areas.
- Promote a reading and creative writing culture using the English Language” (Ministry of Primary and Secondary Education English Language Junior (Grade 3-7) Syllabus 2015: 2).

These aims communicate the right things but lack further elaboration, for example the four language skills are mentioned but nothing more is elaborated. It also stated in this aim that there should be “emphasis on visual, manual and tactile skills” but there is no further explanation and what exactly visual, manual or tactile language skills entail is not further elaborated. Even when the syllabus mentions the skills in the main content section it does not provide further explanations, except to mention the topics and activities (*accuracy in reading, use of punctuation marks, parts of speech*). In the syllabus there is a section devoted to reading just as there is a section for listening, speaking and writing; however, the document is silent about what reading is and what is expected of learners across the grades, and the same applies to all the other language skills. In contrast, the South African Foundation Phase syllabus provides clearer topic specifications (e.g. shared reading, group guided reading, paired reading, independent reading, phonics, comprehension, vocabulary) as well as background information on what the topics entail, what and how the material in question should be covered (Department of Basic Education 2011).

The second aim is also not very clear on how the children are prepared for future studies; one could assume that maybe the document refers to academic literacy for content subjects since English is the medium of instruction. Such ambiguity impacts on the interpretation of the document by inspectors, principals and teachers, key implementers in the teaching and learning process.

The third aim mentions the promotion of a reading culture which is a good aim but nothing more is explained about what it is, why and how it will be done and nowhere else is it mentioned in the whole document. There is nothing about different

instructional methods to develop reading such as group reading, shared reading, independent reading or even suggestions on the types of texts to be read. This might suggest that the teachers are left to make their own interpretations of the syllabus which compromises the teaching and learning process, or it could be that the syllabus is paying lip service without any accompanying action.

The aims are translated into outcomes that indicate what learners should be able to do and I selected only those outcomes related specifically to reading literacy. For example, “by the end of the junior school level (i.e. Grade 3 and 4) learners should be able to:

- Read a variety of English texts for fluency and comprehension
- Write accurately in English
- Listen to/observe and understand texts or any form of communication in English
- Write a variety of creative texts
- Comment skilfully on texts read to develop skills such as critical thinking, problem solving, team building and tolerance” (Ministry of Primary and Secondary Education English Language Junior (Grade 3-7 Syllabus 2015:2).

Just like the aims, the outcomes are also stated without any further elaboration; even when one looks at the scope and sequence section of the syllabus there is no further elaboration. The first outcome alludes to a ‘variety of texts’ but neither ‘variety’ nor ‘texts’ are explicitly unpacked: how many texts constitute an acceptable ‘variety’ (5, 10, 20 per term?) is open to different interpretations, and there is no information about specific genre types, purposes of such texts and even the structure of the texts. Fluency is mentioned but there is no further elaboration of what it entails, what its relation to comprehension is or even how it can be assessed.

On the third outcome the syllabus requires learners to listen and understand any texts in English; by ‘understand texts’ it is not clear whether it refers to levels of text comprehension so one is left with a lot of unanswered questions. It also refers to writing creative texts and yet learners will read different kinds of texts, particularly information or expository texts, as they progress with their studies and will be expected to produce these kinds of texts, even later in life they will be exposed to different text types. Instead, the syllabus seems to favour an Arts orientation, even though the aims refer to preparing learners for the future

Even the time guidelines stipulated in the syllabus are not specific about the amount of time allocated to reading. In most schools a typical day starts around 07h30 and lessons end when learners break for lunch around 13h00, depending on the school's starting time. Most afternoons are devoted to extracurricular activities, remedial lessons and in some schools, individual reading is done in the afternoon. English language lessons are allocated nine lessons per week, each of which are 30 minutes long (i.e. 4 hours and 30 minutes per week), but nothing more is stated about how these lessons should be utilised, minimum benchmarks for each skill, or how the time should be apportioned. In contrast, the South African syllabus has a clearly defined time allocation throughout all the grades. At Grade 3 English First Additional Language is allocated 3 or 4 hours while at Grade 4 it has 5 hours, and the time is further broken down to show what skill should get how many hours. For example, Listening and Speaking are accorded 15 minutes per day at Grade 3 level, as are shared reading and phonics. Such guidelines in theory can help teachers not to over commit time to one skill at the expense of other skills.

The time allocation in the Zimbabwe syllabus for indigenous languages in general (Shona/Ndebele) is also 4 hours and 30 minutes (nine lessons) per week throughout the country while Mathematics is allocated 3 hours (six lessons). From the informal conversations with teachers I gathered that how the nine lessons should be apportioned to the four language skills (listening, speaking, reading and writing) is up to the individual class teacher. In most classes that I observed, reading did not have independent slots on the timetable. In all the schools that I worked with reading comprehension and composition writing tend to be a double lesson while the other five lessons were for the teaching and learning of the various concepts in other language skills (language structures, appropriate register, spelling, etc). I also gathered informally from the teachers that that was the norm in schools across the country. I also referred to the old syllabus to find out more about lesson allocation and discovered that the previous syllabus specifies in greater detail how time should be allocated to the various activities in the English language classroom. In fact, the previous syllabus has more elaboration compared to the new syllabus, even though the latter should be an improvement on the previous one. It is possible that the teachers still use the time allocation from the previous syllabus.

There are no programmed visits to the school library or time slots for independent reading for learners in the syllabus and yet this is crucial for reading literacy development, not only in English but across all school subjects (Harris & Graham 2015; Duke & Pearson 2002). The only time learners encounter reading is during the reading comprehension lessons; two of the nine English lessons. Furthermore, the reading lessons are done once a week, even though reading should be done regularly in order to realise meaningful gains (Kim, Boyle, Zuilkowski & Nakamura 2016; DeStefano 2012; Duke & Pearson 2002). DeStafano (2012) asserts that actual time allocated to reading in the syllabus is different from engaged time in the classroom (i.e. the time when the class embarks on meaningful learning tasks) where the latter is rather limited. It would be helpful if the syllabus was more explicit about reading instruction - thereby reducing ambiguous interpretations and providing clearer guidelines for teachers in the overall execution of their duties.

In Zimbabwe and many education systems worldwide, reading literacy is contained within (English) language teaching (Trudell, Dowel, Piper & Bloch 2012), so when a teacher works on comprehension activities, whether oral or written, that is when reading instruction is assumed to be taking place. But scholars argue that reading instruction needs to be explicitly programmed and structured for it to be effective (Weih 2018; Harvey & Goudvis 2007; National Reading Panel 2000). However, when the syllabus, which is a guide to teaching and learning, does not explicitly provide details about reading instruction (for example, what reading entails at any given stage and how it is done, how to teach learners how to read to learn), teaching and learning becomes compromised. There will be various interpretations of the syllabus by the teachers and attention to detail may be overlooked because there is no common vision about what successful reading looks like, its development and assessment across the grades.

4.1.3 Word frequency in the Grade 3 and 4 syllabus documents

In this section I shift attention to the word profile of the syllabus documents to see how prominent words in the document align with concepts foregrounded in the syllabus and in this study. Table 4.1 below shows the frequency of key lexical items related to reading as well as those that are not related to reading but which appear more frequently throughout the syllabus document.

Table 4. 1: The most frequent lexical items in the Grade 3 and 4 syllabus documents

Lexical item	Grade 3	Grade 4
Total number of words	1,870	1,874
Frequency of lexical items	(% in brackets)	(% in brackets)
words	40(2.1)	47(2.5)
read(ing)	35(1.9)	22(1.2)
texts	26(1.4)	36(1.9)
story(ies)	26(1.4)	16(.9)
ask/answer question(s)	23(1.2)	25(1.3)
write(ing) /written	19(1.0)	20(1.1)
punctuation question marks	19(1.0)	15(0.8)
silent reading/letters	19(1.0)	2(0.1)
sentences	15(0.8)	18(0.9)
ict tools	10(0.5)	15(0.8)
books/ebooks	14(0.7)	7(0.4)
sound(s)	13(0.7)	15(0.8)
speech/speaking	13(0.7)	8(0.4)
consonants	16(0.9)	-
vowel(s)	12(0.6)	5(0.3)
listening to stories/letter sounds	7(0.4)	10(0.5)
comprehension	6(0.3)	15(0.8)
composition	6(0.3)	7(0.4)
fluent(ly)	4(0.2)	2(0.1)
summary(ies/ising)	-	4(0.2)

Both syllabus documents had quite a number of lexical items which featured frequently and these were examined irrespective of whether they were reading literacy terms or not. The most frequent lexical item is *words* which is used in different ways and for different purposes as indicated in the following examples. The syllabus talks about *identifying unfamiliar words* and *providing meanings*, in this case the term *words* was used to depict a vocabulary sense and it was also used in a general sense for example, *identifying vowel sounds in words*, *pronunciation of words*. The syllabus does not make a clear distinction between vocabulary development and more generalised use of the

term *words*, it is silent about building vocabulary, the difference between high/common, medium and low frequency words, explicit vocabulary instruction and use of strategies to infer word meanings and develop vocabulary size and depth. The syllabus also does not provide expected vocabulary development milestones at Grade 3 or 4 levels which could help teachers build learners' vocabularies through mobilising grade level texts and activities.

Read(ing) which is the mainstay of my study was the next most frequent word in the Grade 3 syllabus (1.9%), but in the Grade 4 syllabus it appears slightly fewer times (1.2%). Its frequency shows that it is an important aspect of the syllabi compared to other items though it is mainly used to show what the learners are expected to do (e.g. *read a range of words; read fluently; read silently*). The term *read(ing)* is also presented as one of the four language skills to be acquired by learners but the other skills are not as prominent in the syllabus. Listening is mentioned seven and ten times within the Grade 3 and 4 syllabus respectively (*listening to words/stories/texts read/instructions*). Even *speaking/speech* as another language skill which works together with *reading* is used fewer times (13 and 10 times respectively). Speaking is used for the following tasks: *ask and answer questions, practising pronunciation, demonstrate appropriate registers, dialogues, role playing, describing, discussing*.

The word *story(ies)* also appears more times in the Grade 3 syllabus than the Grade 4 syllabus. This could be because at grade 3 level learners are still transitioning from the 'learning to read' phase to the 'reading to learn' phase as such there is still dependence on narratives. The syllabus states that learners should *read stories/ story books, narrate stories, retell stories*. There is no further elaboration of *stories* as a text genre.

Related to *stories* is *text(s)* which is used generically and appears 36 times in the Grade 4 syllabus and fewer times (26) in the Grade 3 syllabus. The syllabus states *listening to various texts; texts from various sources; recorded texts; a variety of texts; a given text* which is repeated several times. It is not clear what the syllabus means by *text(s)*; on the resources section there are no specific examples of the texts which leads one to assume that it could be referring to the textbooks that are used in class as well as other reference materials. The term *texts* is used more frequently in the Grade 4 syllabus than the Grade 3 syllabus, possibly because Grade 4 is a stage where 'reading to learn' is taking centre stage, and a distinction is emerging between the *stories* which were

emphasised on in the Grade 3 syllabus which could mainly be narrative while information or expository *texts* take centre stage from Grade 4 upwards. However, the syllabus does not draw explicit attention to this transition.

The other lexical item of prominence in the syllabus document is the fourth language skill, viz. *writing/write/written*. This was also used in reference to learners' activities like: *write correct sentences; write a paragraph; identify punctuation marks in written sentences* which is form based. One of the syllabus aims is to develop creative writing but there is no mention of how creative writing is nurtured, the suggested activities on composition writing are *writing controlled/guided compositions/rearranging jumbled sentences into meaningful paragraphs/ writing paragraphs describing objects*. Tasks which involve writing activities are normally a follow up to what would have been learnt, for example after reading a comprehension passage or a lesson on punctuation marks. It is a way of reinforcing what was taught/learnt. Written tasks help the teacher assess learners' individual or group performance and, in the case of reading, help inform the teacher whether learners comprehended a text or not. Though the syllabus does not specify the number of written exercises per week it is well known in Zimbabwe and the teachers also confirmed that learners have at least one English written task a day and a creative writing composition once a week.

The other lexical item which appears frequently is *question(s)*. The term is used in relation to comprehension questions as well as other class activities where learners are expected to *ask oral questions or answer oral questions*. The term is often associated with reading which might explain its high frequency as well as position after *reading* and *texts* in the above table. However, there is no mention of the different types of questions (e.g. literal, inference, integration or evaluation).

The word *sentences* appears quite frequently in both syllabus documents, mainly with reference to learner activities, for example: *dictation of short sentences, sentence construction, punctuate sentences, identify and use parts of speech in sentences, sentence strips*. It can be noted that *sentences* goes together with writing activities which has already been presented.

The rest of the lexical items in the syllabus documents appear less than 20 times and this includes those that are directly related to reading and those that are not. For

example, the adjective *silent* appears 19 times in the Grade 3 syllabus and just twice in the Grade 4 syllabus. In both documents it is used to refer to *silent reading* as well as *silent vowels* and *consonants* but in the Grade 3 syllabus it is also used to refer to a number of learner activities like *listing silent consonants*, *listing silent vowels*, *using words with silent vowels in sentences* in pronunciation and these activities are repeated quite a number of times in the Grade 3 syllabus. Familiarity with consonants and vowels as well as their different characteristics is an important feature in word recognition when developing decoding skill, although these different components of reading are never identified or explained in the syllabus documents. Though silent reading should occur in Grade 3 so that by Grade 4 learners can read fluently enough to read to learn it is not further elaborated in the syllabus documents.

Marks is also frequent in both syllabus documents and it is mainly used with reference to *punctuation marks* and *question marks* during reading and writing. The ability to observe punctuation marks helps in reading fluency since punctuation marks have meanings.

Surprisingly, given that comprehension is the goal of reading, the word *comprehension* only appears six times in the Grade 3 syllabus while it appears more than double that (15 times) in the Grade 4 syllabus. This could be because it is assumed that during Grade 1-3 focus is mainly on ‘learning to read’ (i.e. developing decoding skills, even though the word *decoding* never occurs in the Grade 3 syllabus document, and even though comprehension is very much part of ‘learning to read’), while during Grade 4 learners transition from ‘learning to read’ to ‘reading to learn’ and comprehension occupies centre stage once learners crack the reading code. However, it is noteworthy that not much about comprehension is reflected in the syllabus documents. There is nothing about comprehension levels or comprehension strategies except *summary*. The term *summary* appears on the tasks section but nothing more is provided about what it is or how learners can be taught to summarise. This is one of the reading comprehension strategies though it is not presented as such in the syllabus. No other reading strategy is mentioned in the syllabus. *Summary* does not even appear in the Grade 3 syllabus while it appears only four times in the Grade 4 syllabus as *texts for summarising*, *writing summaries of given texts*. The ability to summarise a text after reading requires a reader to understand the text and identify the main ideas. It is not clear whether the

lack of reference to summaries in the Grade 3 syllabus is an oversight or whether Grade 3s are not expected to give and write summaries.

Fluent(ly) appears insignificantly in the two documents where it occurs as *fluent reading* and *read fluently* in the learners' activities section. Reading comprehension cannot take place if learners are not fluent but here the syllabus refers to it only in passing. The syllabus does not even mention how it develops or how it can be assessed.

The syllabus document also mentions *books/ebooks* as reading resources in the language classroom. The term *books* mainly appears in the resources section and in most cases, it just occurs as *books/ebooks*. The syllabus documents do not refer to recommended textbooks neither do they specify the types of books. Just like earlier observations on other issues, the syllabus documents are not clear and lack detail.

The same applies to *composition(s)*; it only occurs a few times throughout the two documents. In the syllabus it occurs as *write guided compositions*, *write free compositions*, *write descriptive and narrative compositions*. There is no further information on what is expected of Grade 3 or 4 compositions in terms of structure, vocabulary or length. From the interviews and informal discussions, I gathered that from Grade 3 upwards learners write one composition a week, but it is not clear how that amount was arrived at, although during interviews teachers emphasised that 'practise makes perfect' in relation to composition writing, even though that did not show in most of the exercise books that I later examined.

It is also interesting to note that the overarching term *literacy* does not appear at all. Maybe this is because the school syllabi concentrate on the four basic language skills just like many language curricula worldwide, while literacy is traditionally referred to as the ability to read and write so the assumption could be that it is implied in the two reading and writing skills.

Generally, I noted that besides the use of the term *reading* most of the critical constructs in my study (*comprehension*, *vocabulary*, *fluency*) did not have high prominence in either syllabus document. Silence on those constructs might affect the teaching and learning of reading and related concepts in Zimbabwean schools since the syllabus is the road map for classroom day to day activities. The policy documents mention reading but not in an explicit manner which does not position reading as a critical skill and yet

it is the key to all learning (Kennedy, Dunphy, Dwyer, McPhillips, Marsh, O'Connor & Shiel 2012; Blue 2010; Geske & Ozola 2008). This gap could be a result of the assumption that the teaching of reading is the duty of the teachers in the foundation phase. Another reason for the gap could be that the material developers responsible for the syllabus might not be reading specialists or even subject specialists at the relevant phase and as such they might not be knowledgeable of critical concepts and pedagogy for the stages in question. On the whole the syllabus analysis suggests that reading literacy needs to be foregrounded more prominently in the syllabus to help teachers focus more on reading instruction since it is the basis of successful learning.

Most of the terms which tended to feature more frequently were somehow related to the construct *reading*. These included terms like *words, texts, stories, questions* which might at first glance suggest that the syllabus documents catered for reading literacy. However, they tended to be used generically rather than contributing to a coherent view of reading as a fundamental tool for learning. It is important to bear in mind that the syllabus documents are not specifically for reading literacy but for English language, though it is common to find the teaching of reading included in language subjects across school curricula the world over. What is of concern here is the fact that the constructs are not given in-depth coverage which is likely to lead to compromised teaching of reading and other language skills since the syllabus explicitly states that the teaching and learning of English language will focus on listening, speaking, reading and writing.

Even when referring to reading in particular in the main content section, the syllabus documents do not provide any explicit guidelines on the teaching of reading. The guidelines that are given are vague and superficial. For example, on reading fluency the guidelines only refer to pronunciation, articulation, intonation and stress; nothing is mentioned about accuracy and rate, the importance of fluency for comprehension, activities that could be used to explicitly develop fluency, or teaching time allocated to it. Also, the documents are silent about the type of assessment to be done to establish whether fluency and related aspects are being achieved. There is also nothing on suggested rescue measures for struggling readers even though fluency is pivotal for reading comprehension (Kim et al. 2016, Draper & Spaul 2015; Pikulski & Chard 2005).

The same applies to reading comprehension; the syllabus documents state that learners should be able to ‘read for understanding’ and ‘answer questions’. The guidelines are superficial. Nothing is mentioned about different levels of understanding or different types of questions, nor is there any reference to explicit comprehension instruction and the use of comprehension strategies which aid text comprehension, except for reference to skimming and scanning (which are not particularly helpful strategies for deep understanding of texts and are difficult to implement if decoding skills are poor). The syllabus does not show the vital place that comprehension holds in reading.

In sum, with reference to RQ1, it was noted that the syllabus includes a preamble, aims and objectives but lacks explicitness, coherence and clarity. The syllabus document seems to be grounded in the communicative language teaching approach which is a liberal arts perspective and not strongly focused on explicit instruction. Though the document refers to a number of reading literacy concepts (e.g. fluency, silent reading, reading comprehension), reading is not foregrounded despite it being a foundational skill. The syllabus seems to mention the reading concepts randomly, without any coherent, explicit unified conceptual view of reading as a complex phenomenon made up of different components which develop in different ways but all of which contribute to the development of reading literacy. There is no evidence that the syllabus is informed by an evidence-based approach to reading (Castles 2012; NRP 2000). The syllabus belongs more to the 20th century than the 21st century, which makes it inappropriate to the current trends in reading literacy.

4.2 Analysis of Grade 3 and 4 text book extracts

In this section I focus on the analyses of excerpts from Grade 3 and 4 texts using both readability analysis and vocabulary profiles. The research question addressed here was:

RQ2 How do Grade 3 and 4 narrative and information texts used in Zimbabwean schools differ in terms of their text and lexical profiles?

In this part of the study I analysed extracts from narrative and information texts. The information extracts came from textbooks in three content subjects, namely Agriculture, Science and Social Studies (Mandizvidza & Sithole 2017; Thusabantu & Chikwava-Dzirutwe 2017; Mujajati 2017 respectively) for Grade 3 texts. The Grade 4 texts in the three subjects were authored by Mdewa & Makuve (2017); Mbiriyakare &

Mujajati (2017); Makoni, Mudehwe & Manyarara (2017) respectively (see Appendix C). I also analysed six narrative text extracts from the Grade 3 and 4 English readers (see Appendix C). From the Grade 3 textbook I extracted the following narrative texts; *Collecting eggs*, *How the elephant became king* and *The snake which guards the pools*. From the Grade 4 textbook I extracted *The breakdown*, *Grandmother Chibasa* and *The bushfire*.

I carried out a readability analysis using the Flesch Reading Ease platform on Microsoft Word, and I analysed word frequency levels with the software *Compleat Lexical Tutor*, using the BNC-COCA and VP-Classic options. I sampled texts from the beginning, middle and at the end of each of the textbooks, which yielded three topics per subject per grade. The corpus for all the subjects is shown in Table 4.2 below.

4.2.1 Analytic framework and procedures

My main aims with the analyses were to establish the reading ease of the texts by looking at the average length of sentences and words and passives since these determine the ease or difficulty of a text (Kasule 2011). I also wanted to establish the frequency levels of words in Zimbabwean Grade 3 and 4 textbooks and also draw comparisons between the Grade 3 and 4 text profiles.

For the readability analysis, I uploaded the separate excerpts onto the Flesch Reading Ease platform on Microsoft Word. The Flesch Reading Ease uses an index whereby the closer a score is to zero the more difficult a text is (Kasule 2011). Readability refers to how easily a text can be understood (Zamanian & Heydari (2012). Text readability depends on the length of sentences as well as the complexity of language used in a particular text (Yulianto 2019; Dubay 2004). The underlying assumption, as Yulianto (2019:87) asserts, is that “the longer the words and sentences the harder the passage to read.” The analysis was meant to establish the readability levels of the texts in question as well as to find out whether the texts in question resembled grade level texts they were meant to represent.

An analysis of the lexical profile of words used in the Grade 3 and 4 textbooks was also undertaken, according to their word frequency levels. I used the on-line application called *lex tutor* which can be accessed at <http://lexitutor.ca/vp/eng/>. Word frequency levels are based on word families of 1000 word families per band which are derived

from the British National Corpus (BNC), it is a collection of 100 million words of contemporary British English text (Bauer & Nation 1993). BNC-COCA provides K1-K25 word frequency levels where K1 represents the first 1000 words; and K1 – K3 refer to the 3000 most frequent words in English, i.e. those which are commonly used, spoken and written in a large variety of contexts (Nation 2006). BNC-COCA provides a detailed analysis of words at these 25 different frequency levels though it does not specifically single out academic words thus the Classic profiler was used to identify words from the Academic Word List (AWL). The frequency levels in turn are broken down into high (most common words in spoken and written contexts), mid (reasonably common words, especially in written texts, but not as common as high frequency words) and low frequency (rare and often restricted to specialised texts) (Nation 2001). I also compared the vocabulary differences between the Grade 3 and 4 texts used in this study in order to ascertain any developmental changes. More on BNC-COCA word frequency levels was covered in Chapter 2.

4.2.2 Analysis of the text extracts

In this section I first present the outcomes of the RE analysis and then the vocabulary profiles.

4.2.2.1 Reading Ease (RE) results for Grade 3 and 4 text extracts

Table 4.2 below shows the readability analysis for the two grades according to the three subjects highlighted above, with three topics per content subjects and three different narrative texts from both grades.

Table 4. 2: Text profiles of the Grade 3 and 4 texts

	Total no. of words	Mean sentences per paragraph	Mean words per sentence	Mean length of words	Passives %	Flesch reading ease %	Flesch Kinkaid grade level
Grade 3 Agriculture	836						
Types of farm implements and machinery	306	20.0	15.3	5.2	40	49.7	10.1
Plants within the local environment	254	24.0	10.5	4.7	20	82.1	4.4
Apiculture	276	22.0	12.5	4.3	18	78.2	5.4

Averages across the Agriculture extracts		22.0	12.8	4.7			
Grade 3 Science and Technology	982						
Sources of electricity	311	26.0	11.9	5.0	23	48.6	9.4
Natural and manmade sources of water	384	28.0	13.7	4.4	35	74.6	6.2
Weather and climate hazards	287	22.0	13.0	4.3	13	75	6.0
Averages across Science extracts		25.3	12.9	4.6			
Grade 3 Social Studies	931						
Family ceremonies and rituals	355	19.0	12.6	4.4	28	67.6	6.9
Government as a social service provider	318	26.0	12.2	4.8	19	56.2	8.0
Relationship between population and transport	258	24.0	10.7	5.3	4	56.2	8.0
Averages for Social Studies extracts		23.0	11.6	4.8			
Grade 4 Agriculture	658						
Causes of erosion	260	22.0	11.8	4.3	31	76.7	5.4
Different agricultural seasons	234	13.0	18.0	5.0	38	52.9	10.3
Small livestock production	164	16.0	10.0	4.5	25	78.8	4.8
Averages across Agriculture texts		17.0	12.3	4.6			

Grade 4 Science and Technology	1658						
Water borne diseases	404	24.0	16.8	4.9	29	50.2	10.4
Teeth and their functions	847	63.0	13.4	4.2	25	83.5	4.9
Elements, mixtures and compounds	372	21.0	17.7	4.6	47	54.4	10.0
Averages across Science extracts		36.0	16.0	4.6			
Grade 4 Social Studies	1104						
Families	251	19.0	13.2	4.6	10	63.9	7.6
Conservation of natural resources	552	22.0	28.0	4.7	36	50.6	12.4
Work and leisure	301	20.0	15.0	4.7	5	62.5	8.2
Averages across Social Studies extracts		20.3	18.7	4.7			
Grade 3 English narrative texts							
Collecting eggs	208	26	8.0	3.9	0	99.0	1.4
How the elephant became a king	268	35	7.6	4.0	0	91.1	2.4
The snake which guards the pools	218	26	8.3	4.0	0	91.2	2.6
Averages across Grade 3 narrative texts		10.4	9.6	3.9			
Grade 4 English narrative texts							
The donkey and his friends	232	27	8.5	3.8	0	94.9	2.1

Grandmother Chibasa	288	25	11.5	3.9	4	93.5	3.0
The bushfire	141	11	12.8	4.1	9	90.0	3.8
Averages across Grade 4 narrative texts		8.0	11.6	3.9			

The readability statistics for content subjects show that the Grade 3 and 4 texts were generally beyond the intended grade levels as indicated by the Flesch-Kinkaid grade levels, which ranged from 4.4 to 12.4; not a single Grade 3 information text was at Grade 3 level which suggests that the information texts were difficult. Only two Grade 4 information texts were at Grade 4 level. On the other hand, the narrative texts for both grades were below grade level, with the lowest at grade 1.4 and the highest at 3.8; this indicates that the narrative texts were easier to understand compared to the content subject extracts, a feature which is not uncommon between information and narrative texts.

The occurrence of passives differed somewhat across the texts. I observed that some information texts which had longer sentences and a higher percentage of passives were more difficult (e.g. texts titled: *Farm implements* and *Natural and manmade sources of water*) while others with passives were not as difficult (e.g. the text titled *Plants within the environment*). Among the narrative texts no passives occurred in the Grade 3 texts and only two Grade 4 texts (*Grandmother Chibasa* and *The bushfire*) had passives though their occurrence was very low (4% and 9% respectively). Interestingly the two Grade 4 narrative texts with passives were the ones that were deemed to be at Grade 3 level among the narrative texts though they were below the intended grade levels. Thus, the use of passives per se may not necessarily make a text more difficult.

The following extracts from information texts on *Farm implements* and *Plants within the environment* respectively illustrate some of the textual features of this genre:

Types of farm implements and machinery (Grade 3)

In Zimbabwe the most common tool that falls under this category is the knapsack sprayer. Livestock equipment is mainly used to make sure that animals grow healthy and strong. It is used to protect domestic animals from diseases and increase the strength of their bodies' ability to fight

diseases. Examples of these include vaccines which are medicines used to prevent animals of different sizes and ages from certain diseases, dipping solution for removing of ticks and feeding containers. Irrigation equipment is used to water crops on fields. Examples of irrigation tools include sprinkler pipes.

Plants within the local environment (Grade 3)

The environment has a lot of plants. These include grasses, trees, and shrubs. Trees are plants which have hard stems that grow tall. Shrubs are small to medium sized bushes that have multiple stems near the ground. Grasses are thin and they have soft stems. Indigenous plants are plants that are originally grown in a country and Exotic plants are originally grown in foreign countries. Trees have long/tall trunks that support branches above the ground. Most trees are woody and grow tall and strong. We use trees for different things.

The Agriculture text on *Farm implements* has the longest sentences in that subject (15.3 mean words), deals with less commonly known concepts, contains passives and makes use of nominalisations with adjectives or qualifiers – *dipping solution, feeding containers, irrigation equipment* and *indigenous plants*. There is a lot of specialised terminology like *knapsack sprayer, vaccines, sprinkler pipes, planter* as can be seen in the above example. In contrast, the other text on *Plants within the local environment* has very short sentences dealing with more common objects (trees, shrubs, grasses) and less specialised terminology which suggests that topics might determine text difficulty. Also, author style could have played a part (though it is not clear who wrote on what topics) in influencing text difficulty since the textbooks were written by different authors. The Grade 3 Science texts displayed a different pattern; the text on *Sources of electricity* which had the highest-grade level (9.4) among the Grade 3 Science texts, had a mean sentence length of 11.9, 23% passives and a mean word length of 5.0. This is typically associated with more academic type texts, with a lot of specialised terminology like *hydropower, thermal power* and *device*. In contrast, the Grade 3 text (*Natural and man-made sources of water*) contains more common terms *water, rivers, dams, boreholes, taps*, but its mean sentence length is longer (13.7 words per sentence) and it contains more passives (35%). The first set of terms is scientific and for learners

to be familiar with them they need to be explicitly taught. It is also useful to teach vocabulary strategies which make the unfamiliar terminology more understandable, for example teaching Greek or Latin stems such as *hydro* means *water*, *thermal* means *heat*. The words in the second set are more familiar, day-to-day terms encountered in ordinary conversations. Although both texts were beyond Grade 3 level, the *Sources of electricity* text, despite having slightly shorter sentences and fewer passives, had a much lower (i.e. more difficult) RE index (Grade 9) than the *Natural and man-made sources of water* text (Grade 6), despite longer mean sentence length and percentage of passives (35%). So, it is difficult to conclude that longer words and sentences as well as greater use of passives will necessarily result in a more difficult text because there is no one-to-one consistency. Following the earlier observation, familiarity of topics could have influenced text difficulty. Also, possibly the availability of everyday words to talk about topics at a fairly general level, and the need for more specialised terminology to talk about topics at a more scientific level. *Sources of water* is a familiar concept while information on *Sources of power* is less familiar and entails a lot of scientific detail which might make a text more complicated. However, it can be noted that most texts that had longer words and a lot of specialised terminology also had lower RE, more appropriate for higher grades. This was observed in quite a number of texts across the subjects and grades for example texts on *Types of farm implements and machinery*, *Sources of electricity*, *Relationship between population and transport system*, *Water borne diseases*, *Elements, mixtures and compounds*.

Although the trend is almost the same across grades and subjects, it is a combination of factors such as sentence and word length, familiarity of topic, passives, technical vocabulary, nominalisation and author style, which generally make a text more challenging, as can be seen in the examples given above. The following are examples of some of the technical vocabulary from five different excerpts in the cited texts.

- *Types of farm implements and machinery e.g. draw-bar, knapsack, vaccines.*
- *The relationship between population and transport system e.g. density, residential, commuter, income.*
- *Government as a social services provider e.g. tuberculosis, recreation, social services, policies.*
- *Sources of electricity e.g. hydroelectric, thermal, device, inverter.*

- *Conservation of natural resources e.g. recycled, conserve, deforestation, reclaiming, gullies.*

Another feature is that the degree of abstraction was higher in texts with higher grade ratings. That in itself makes the texts more challenging than everyday language or narrative texts. Learners might find it difficult to understand some of the more abstract vocabulary for example *traffic, commuters, density* or *hydro* though they might be acquainted with everyday terms like *car, truck, roads, number* or *water*. Teachers should help learners successfully transition from ordinary knowledge to scientific knowledge which is characteristic of school but this takes a lot of scaffolding, especially in contexts where the school language is different from the L1, as is the situation in Zimbabwe and other developing countries.

I also observed that Grade 3 texts which had a higher Flesch-Kincaid grade level of 4 and 5 had topics which seemed familiar and less scientific for example *Plants in the local environment, Apiculture, Causes of soil erosion, Small livestock production*. These grade levels (4/5) are slightly closer to Grade 3. Below are two different paragraphs from Grade 4 texts; one from a text which has a RE grade rating (4.8) closer to the intended Grade 4 readers– (*Small livestock production*) and the second one which has the highest-grade level (12.4) rating of all the texts in this section (*Conservation of natural resources*).

Small livestock production (Grade 4)

Livestock are domesticated animals that are kept for food, use or sale. Small livestock include hens, rabbits, sheep and goats. Small livestock has many uses. They provide good sources of food, manure, clothes as well as medicines. All animals kept by farmers with wings and feathers and lay eggs are called poultry. Poultry are a good source of white meat, eggs and manure. We also get money from selling the birds and their products. There are many birds that are in the group of poultry. These are chicken, guinea fowl, ducks, turkey, pigeons and quail birds. Rabbits in Zimbabwe for now have three known uses. They are kept for meat, pelts and agricultural shows. A pelt is animal skin used to make blankets, hats and jackets. Rabbits are cheap to buy, easy to house and feed. They take about four months to

*mature. Rabbits can be fed using green vegetables and rabbit pellets.
Rabbits should not be fed with carrot tops and tomato leaves.*

The text structure of the above example is characterised by shortish sentences (10 words per sentence) with simple and familiar vocabulary (mean word length 4.5). Even though it is an information text the style of writing and the sentence structure is simple. The author makes a statement and goes on to give examples which is a typical feature of a descriptive paragraph in information texts. This makes it easy for learners to understand texts at that particular level which is different from the second text presented below though it uses the same style of writing.

Conservation of natural resources (Grade 3)

Some of the ways of conserving water include attending to leaking taps and pipes and using irrigation methods that do not waste water, turning off public taps that are left running in parks, toilets and other public places and water recycling. Lastly is the land reclamation which is the act of changing damaged land and making it usable. This is done after land has been damaged, either by floods, deforestation or flooding. An example of damage to land is gully erosion which is the removal of soil along drainage lines by surface water. When there is not enough vegetation to hold the soil, it is washed away leading to land damage. There are ways of reclaiming gullies so as to improve the land. People use stones, wire, branches, grass, soil and cement to reclaim damaged land. To make sure that the land does not lose more soil, planting vegetation helps to hold the soil and protect it from running water.

The above paragraph is a typical academic text which has long sentences (28 words per sentence) which are characterised by specialised vocabulary (*recycling, gully, deforestation, reclaiming*) (mean word length 4.7). It also has nominal constructions (*land reclamation, deforestation*). There is also an occurrence of passives (*This is done after land has been damaged, either by floods, deforestation...*). This text contains more sophisticated use of language, longer sentences as well as embedded and subordinate clauses, features associated with academic language. However, in this context the text

is meant for Grade 4 learners but the text has clearly not been adapted for the intended learners.

The narrative texts are different from the content subject texts; they made use of words that signal setting and characters and use a lot of familiar vocabulary. Here are two examples from a Grade 3 and 4 text respectively (*Collecting eggs* and *The old donkey and his friends*).

Collecting eggs (Grade 3)

One fine morning, Sipiwe and Mother went to collect eggs from the hens.

The donkey and his friends (Grade 4)

Once there was a man who owned a donkey.

From the above examples it can be noted that the syntax is simple, the story line deals with the everyday/familiar and is sequential and the vocabulary is simple and familiar which makes narrative texts easier to comprehend than information texts.

Table 4. 3 below shows the text statistics for the different genres across the two grades.

Table 4. 3: Means across paragraphs, sentences and words

Text extracts	Mean sentences per paragraph	Mean words per sentences	Mean length of words
Grade 3			
Agriculture extracts	22.0	12.8	4.7
Science extracts	25.3	12.9	4.6
Social Studies extracts	23.0	11.6	4.8
Narratives	10.4	9.6	3.9
Grade 4			
Agriculture extracts	17.0	12.3	4.6
Science extracts	36.0	16.0	4.6
Social Studies extracts	20.3	18.7	4.7
Narratives	8.0	11.6	3.9

When comparing the mean number of sentences per paragraph, words per sentence and length of words across the subjects within the two grades, one notes that the Science texts had the longest paragraphs and sentences of the information texts while word

length was fairly similar across the three content areas. The Science texts in particular were several grades higher than the intended level in both grades which suggests that material developers were not adapting text features to grade levels. In contrast, the narrative texts had the shortest paragraphs, sentences and words.

In sum, the results in this section indicate that almost all the information texts across the three subjects for both grades were several grades higher than the intended grade levels and hence more challenging for the intended readers. On the other hand, the narrative texts were below the intended grade levels and hence easier to comprehend. Given that these narrative texts were intended for ESL readers, having a RE a grade lower than the intended is grade learner is perhaps appropriate, especially for Grade 3.

4.2.2.2 Vocabulary profile results

In this section I report on the results of vocabulary profiles for the Grade 3 and 4 texts. Table 4.4 presents the vocabulary profile of the frequency levels, with at least four examples given in italics per level. All the academic words (AWL) for each text occurred less frequently for all the topics, so I display the entire AWL for each topic. I also indicate the 95% and 98% benchmarks for each topic by use of brackets: 95% refers to the minimal text coverage required for learners to comprehend a text while 98% is the optimal text coverage needed for learners to acquire unassisted text comprehension (Schmitt et. Al 2011; Laufer & Ravenhorst-Kalovski 2010; Hu Hsueh-Chao & Nation 2000) (cf §4.1).

Table 4. 4: Vocabulary profiles

	Frequency level	Tokens %	Cumulative tokens
Grade 3 Agriculture Farm implements	K1- <i>ability, management, prepared, machines</i>	73.1	73.1
	K2- <i>equipment, apply, produce, weeds, stock</i>	12.8	85.9
	K3- <i>category, agriculture, chemicals, crops</i>	5.4	91.3
	<u>K4-<i>harvesting, classified, cultivation, dipping</i></u>	<u>2.2</u>	<u>93.5</u>
	K5- <i>pest, ploughs, rakes, sowing, sprinkler, towed</i>	4.2	97.7
	K8- <i>ox</i>	0.3	98.0
	K9- <i>harrowing, hoes</i>	0.6	98.6
	K12- <i>knapsack</i>	0.3	98.9
	AWL- <i>implements, processed, chemicals, involves, technologically</i>	7.1	
	Plants within the local environment	K1- <i>above, building, woody, countries, yards</i>	75.6
		9.1	84.7

	<p>K2-branches, breathing, decorate, environment K3-boundaries, cattle, jointed, medium, numerous K4-corn, exotic, harvested, herbs, indigenous K5- hay, perfume, shrubs, wheat</p> <p>K7-barley, tufted K8-maize, thatching</p> <p>K9-fodder, millet K13-bougainvillea, sorghum</p> <p>AWL-medium, community, environment</p>	<p>4.7 3.1 3.9 0.8 0.8 0.8 0.8 1.2</p>	<p>89.4 95% 92.5 96.4 97.2 98.0 } 98% 98.8 99.6</p>
Agriculture	<p>K1-sometimes, becomes, sweetness, important K2-female, commercial, purpose, searching K3-absorb, cells, liquid, rear K4- sting, wax K5-flu K6-cavities, syrups K7-glucose, hive, pollen</p> <p>K8-pollination K9-nectar K12-fructose, sucrose</p> <p>AWL-process, transferred</p>	<p>69.6 18.8 1.8 0.7 0.4 0.7 3.3 0.4 1.8 0.7 0.7</p>	<p>69.6 88.4 90.2 90.9 91.3 92.0 95.3 } 95%</p> <p>95.7 97.5 98.2 } 98%</p>
Science Sources of power	<p>K1-around, power, centre, flat, schools K2- flow, coal, energy, electricity, contain K3-device, dispose, hence, panel, generates</p> <p>K4-cord, recycling, solar K5- sockets, socket</p> <p>K11-cellphone K17-hydropower</p> <p>AWL-devices, disposing, energy, transmitted, panel generate, hence</p>	<p>69.6 20.3 5.1 1.3 2.5 0.3 0.3 5.7</p>	<p>69.6 89.9 } 95% 95.6 95.6 98.8 } 98% 99.1 99.4</p>
Natural and man-made sources of water	<p>K1-allow, control, ground, opened, place K2-communities, sunk, diseases, cure, surface K3-barrier, drilled, ocean, structures, sources K4-dams, minerals, ponds, wells K5-reservoir K6-gutters K14-landlocked</p> <p>AWL-communities, structures, environment, occur, sources</p>	<p>84.7 6.7 3.7 2.0 0.2 0.2 0.2 3.1</p>	<p>84.7 91.4 } 95% 95.1 97.1 97.3 97.5 } 98% 97.7</p>

Weather and climate hazards	K1-amount, powerful, sudden, quickly, heat	83.3	83.3	95%	
	K2-flooding, circles, combination, extreme, event	8.5	91.8		
	K3-climatic, hazards, temperature, crops	2.4	94.2		
	K4-dams, grazing, rotates, thunder	1.4	95.6		
	K5-drought(s), lightning	1.4	97.0	98%	
	K8-thatching	0.3			
	K10-cyclone(s)	1.7			
	AWL-area, occur(s), period	2.8	99.0		
Social Studies Family ceremonies	K1-particular, accepted, snow, sitting, sunlight	78.9	78.9	95%	
	K2-direct, adult, crawling, culture, practices	7.6	86.5		
	K3-customary, drilled, grave, relative, ritual	5.4	91.9		
	K4-ancestors, bribe, cord, mat, sacred	2.3	94.2		
	K5-feast, notify, token(s)	1.1	95.3		
	K6-reed	0.3	95.6	98%	
	K9-utensils	0.3	95.9		
	K10-umbilical	0.3	96.2		
	K17-ululating	0.3	96.5		
	AWL-accompany, adult, region, site, areas, communities, culture, items	2.5			
People and transport	K1-roads, afford, services, times, quiet, system	76.0	76.0	95%	
	K2-affect, lower, mass, demand, favour, include	5.8	81.8		
	K3-density, mines, suburb, transport, mines, rural	14.3	96.1		
	K4-bicycles, commuter	1.6	97.7	98%	
	K7-overloaded	0.4	98.1		
		K11-omnibuses	1.2	99.3	
	AWL-affect, areas(s), incomes, residential, transport, transportation, vehicles	9.7			
Government as a social service provider	K1-Treat, parks, services, game, health, hospitals	82.6	82.6	95%	
	K2-activities, aids, receive, policy, relax	8.1	90.7		
	K3-provision, clinic, enable, fees, goods	2.8	93.5		
	K4-stadiums, disadvantaged, recreation, soccer	2.5	96.0		
	K6-tuberculosis	0.3	96.3	98%	
	K7-malaria	0.3	96.6		
	K8-cholera, rhinos	0.6	97.2		
	K9-zebras	0.3	97.5		
		K10-giraffes	0.3	97.8	
		AWL-aids, assists, awareness, policies, fees, promote, welfare, relax	3.5		
Grade 4	K1-dying, washed, little, leaving, enters	74.0	74.0		

Agriculture Causes of soil erosion	K2-activities, agents, effects, bare, season	13.7	87.7	95%	
	K3-factor, hence, slopes, vast	2.3	90.0		
	K4-clay, dams, particles, shallows	3.1	93.1	98%	
	K5-drought, eroded, erosion, vegetation	5.3	98.4		
	K7-gullies	0.4	98.8		
	K8-wilting	0.4	99.2	98%	
K11-loam	0.4	99.6			
	AWL-area, eroded, erosion, exposed, factor, hence	5.4			
Different agricultural seasons	K1- against, continues, almost, control	68.1	68.1	95%	
	K2-applying, activities, divided, patterns, example	13.0	81.1		
	K3-fertiliser, agriculture, bacterial, grain, dosing	8.4	89.5		
	K4-dipping, grazing, harvesting, ticks	2.1	91.6		
	K5-communal, parasites, pest, wheat, ploughing	2.5	94.1		
	K6-thrashing, vaccinating	0.8	94.9	98%	
		2.1			
	K7-barley, manure, oats	0.8	97.0		
	K8-maize, mites	0.4	97.8		
	K9-lice		98.2		
	K20-blackleg	0.4	98.6		
	AWL-constructing, supplementary	0.9			
Small livestock production	K1-easy, clothes, selling, green, skin	74.7	74.7	95%	
	K2-blankets, provide, sale, carrot, medicines	11.2	85.9		
	K3-agriculture, mature, source	2.4	88.3		
	K4-goats	0.6	88.9		
	K5-hens, pigeons	1.2	90.1		
	K6-poultry	1.8	91.9		
	K7-guinea, manure, pellets	2.4	94.3		
	K8-domesticated, quail, pelt	2.4	96.7		
	K10-fowl	0.6	97.3		
	AWL-domesticated, mature, source	2.4			
Science Water borne diseases	K1-important, sickness, poorly, passed, waste	74.0	74.0	95%	
	K2-polluted, includes, avoid, common, due	7.4	81.4		
	K3-raw, bacteria, severe, infect, transmits	5.6	87.0		
	K4-ponds, canals, contaminated, contamination	3.9	90.9		
	K5-crabs, parasitic, intestines, sewage, stool	2.5	93.4		
	K6-diarrhoea, toxin, oysters, hygiene, irrigated	1.2	94.6		
	K7-snail	0.2	94.8		
		K8-cholera, sanitation	1.5	96.3	98%
		K10-salmonella	0.2	96.5	
		K12-faeces, typhoid	1.5	98.0	

	K21-bilharzia K22-vibrio	0.5 0.2	98.5 98.7
	AWL-areas, consumes, contact, contracted, release, source, transmits	3.5	
Teeth and their functions	K1-lastly, differently, usually, builds, reading	82.6	82.6
	K2-sharpest, attack, crowding, tongue, preventing	5.8	88.4
	K3-ache, mild, bacteria, crush, functions, layer	2.0	90.4
	K4-acid(s), decay, digest, grind, ridges	2.7	93.1
	K5-dentist, gum, paste, pour, sticky	1.2	94.3
	K6-cavity, dental, incisor, plague, soda	2.1	96.4
	K7-chisels, enamel	0.7	97.1
	K8-canines	0.5	97.6
	K9-molars	1.2	98.8
	K10-flouride	0.1	98.9
	K11-deciduous	0.1	99.0
	K12-floss	0.1	99.1
	K13-bicuspid	0.1	99.2
	AWL-adult(s), available, functions, layer	0.9	
Mixtures and compounds	K1-heated, substance, through, together, ability	71.9	71.9
	K2-objects, attracts, refers, combining, material	12.0	83.9
	K3-mixture, filter, grain, solution, magnet	9.9	93.8
	K4- outlets, particles	0.8	94.6
	K5- evaporate, evaporation, wheat	2.7	97.3
	K6-diarrhoea, solvent	0.5	97.8
	K9-sieve(ing) K13-chaff AWL-method(s), remove	1.1 0.5 1.3	98.9 99.4
Social Studies Families	K1-childhood, trust, uncle, particular, keeping	85.3	85.3
	K2-individual, producing, attached, duties, skills	5.6	90.9
	K3-status, heritage, biologically, virtues	6.0	96.9
	K4-certificate, guardian(s)	1.6	98.5
	K6-chores	0.8	99.3
	K7-humility AWL-attached, individual, status, team	0.4 4.8	99.7
Work and leisure	K1-reasons, teachers, therefore, cleanliness	83.5	83.5
	K2-contributes, success, balance, chopping, relax	8.6	93.9
	K3-clients, communication, achieve, household	1.5	95.4
	K4-axe, leisure	1.5	96.9
	K6-chores	0.9	97.8

	<i>K7-livelihood</i>	0.6	98.4
	<i>AWL-community, achieve, involve(ing), benefit, communication, mental, physical, job, maintain, contribute(s), communication</i>	5.0	
Conservation of natural resources	<i>K1-useful, addition, especially, methods, waste</i>	79.3	79.3
	<i>K2-activity, removal, damage, attending, bucket</i>	9.9	89.2
	<i>K3-importance, leaking, capture, drainage, fuel</i>	4.9	94.1
	<i>K4-minerals, abundance, recycled, indigenous</i>	1.8	95.9
	<i>K5-cement, communal, erosion, litter, vegetation</i>	2.0	98.1
	<i>K6-irrigation</i>	0.2	98.3
	<i>K7-gully(ies), impart</i>	0.5	98.8
	<i>K8-deforestation, electrification</i>	0.4	99.2
	<i>AWL-areas, benefit, culture, environment, erosion, generation, occur, relocate, removal, resources</i>	3.1	
Grade 3 Narrative texts Collecting eggs The snake which guards the pools How elephant became king	<i>K1-already, answered, wonderful, underneath, breakfast</i>	93.4	93.4
	<i>K2-alive, shell, tiny</i>	1.9	95.4
	<i>K4-leaf</i>	0.5	95.9
	<i>K5- hen(s)</i>	2.8	98.7
	<i>AWL-</i>	–	
	<i>K1-about, children, surprise, interesting, strangers</i>	89.9	89.9
	<i>K2-bucket, boiled, guards, fetch, streams</i>	8.3	98.2
	<i>K4-beady, bubbles</i>	0.9	99.1
	<i>K11-shoo</i>	0.9	100
	<i>AWL-</i>	–	
<i>K1-afraid, empty, problem, matter, finally</i>	88.2	88.2	
<i>K2-elephant, roared shake(s), pile, lion</i>	5.9	94.1	
<i>K6-peanuts</i>	1.1	95.2	
<i>K19 gonzo</i>	2.2	97.4	
<i>AWL-finally</i>	0.4		
Grade 4 narrative texts The old donkey and his friends	<i>K1-replied, bought, slowly, poor, thrown</i>	93.2	93.2
	<i>K2-chased, guard, weak, mice, stiff</i>	2.5	95.7
	<i>K4-weeping</i>	0.4	96.1
	<i>K5-cock</i>	0.8	96.9
	<i>K6-donkey</i>	2.5	99.4
	<i>AWL-</i>	–	

Grandmother Chibasa	AWL-	–	
	K1- <i>nothing, shoulders, listen, dresses, another</i>	91.3	91.3
	K2- <i>basket, hook, prefers, nuts, potatoes</i>	4.5	95.8
			} 95%
	K4- <i>clay, hut, roasts, rug</i>	2.1	97.9
	K6- <i>peanuts</i>	0.7	98.
		} 98%	
	K8- <i>maize, pumpkin</i>	0.7	99.3
	K12- <i>granary</i>	0.3	99.6
The bushfire	AWL-	–	
	K1- <i>across, stepped, beating, fighting, land</i>	81.6	81.6
	K2- <i>advanced(ing), cheeks, leapt, flames, steadily</i>	8.5	90.1
	K3- <i>aching, sweating</i>	2.1	92.2
	K4- <i>blazing, sack, wearily</i>	2.1	94.3
	K5- <i>sacks</i>	2.1	96.4
			} 95%
	K6- <i>mopped</i>	0.7	97.1
	K7- <i>smother</i>	0.7	97.8
			} 98%
	K8- <i>gobbling</i>	0.7	98.5
	AWL-	–	

The analysis indicated that for every text, as expected, most of the words in the text came from the high frequency K1 level across the two grades and the two genres, and even across the three topics within each information genre; ranging from 70.7%–93.4%. This is typical of texts in general (Astika 2016) and it aids text comprehension (Nation 2006). Another notable feature was the absence of academic words in the narrative texts compared to the information texts.

For the majority (6 and 7 texts respectively) of narrative texts the 95% benchmark included only high frequency words in the K1-3 levels while mid frequency words only came at the 98% benchmark across the two grades. On the other hand, for the information texts the 95% benchmark included high and mid frequency words. This suggests that narrative texts had a lighter vocabulary burden as they contained more high frequency words and were thus easier to understand than information texts. The profile of the mid frequency level, which also contains academic words, shows that the texts are transitioning from simple to more complex texts with the progression of grades, which is expected of school textbooks. For the narrative texts the 95% text

coverage was attained within the high frequency level, with only one Grade 4 narrative text (*The bush fire*) attaining the 95% coverage with the inclusion of mid frequency level words (*blazing, gobbling, mopped, wearily*). That was also the narrative text which had the highest-grade rating (3.8) for Grade 4. The high occurrence of high frequency words is expected of narrative texts, especially at the lower levels of primary schooling when children are transitioning from learning to read to reading to learn; familiar words facilitate accuracy and fluency which in turn influences reading comprehension. The difference between the narrative texts and the information texts in relation to the 95% text coverage helps to emphasise the difference in vocabulary demands of the two genres. Vocabulary contained in information texts is more challenging and at times less familiar for readers, for example *indigenous, minerals, electrification, deforestation, livelihood, solvent, contamination*.

Four of the Grade 3 and eight of the Grade 4 information texts attained the optimal 98% text coverage with the addition of a few words within the mid frequency level; while the remainder of texts for the two grades attained the 98% text coverage with the addition of a few words from both the mid and low frequency levels. This shows that in the latter texts the vocabulary load was higher and the range much greater, which highlights the need for learners to master words beyond the high frequency level for purposes of improving comprehension. In contrast, among the narrative texts all the Grade 3 and 4 texts attained the 98% text coverage with the addition of a few words within the mid frequency level only, which attest to the greater ease of the narrative texts. Examples of mid frequency words contained in narrative texts included more familiar and concrete mid frequency words such as *leaf, bubbles, peanuts, blazing, beady* compared to the more abstract mid frequency words such as *recreation, recycling, sanitation, erosion* in the information texts. However, several mid frequency words in the information texts are explained (albeit sometimes at quite a high level), e.g. *erosion which is the removal of soil along drainage lines by surface water*.

The low frequency words occurred least across all texts and this is again typical of academic texts. Nation (2001) asserts that low frequency words make up to 5% of the words in academic texts and for the extracts in this chapter they ranged from 0-1.5% which is well within Nation's (2001) observation (based on evidence from corpus and text linguistics). Most of these words are specialist terms (e.g. *sucrose, fructose, landlocked, cyclone(s), salmonella, typhoid, vibrio*) used in specific disciplines and

their occurrence was very low in one topic you could find a single word and in another just two words the highest number of words was found in the science text entitled *Water borne diseases* which had five different words from the various low frequency levels. Normally the low frequency words are explained in the texts that they appear to aid text comprehension and teachers on the other hand have to do a lot of scaffolding to help learners understand the unfamiliar and specialised vocabulary. However, since they occur in very small numbers and in most cases accompanied by explanations teachers should focus more on mid-frequency words which are typical of academic texts.

The analysis also shows that there were relatively few academic words across all the texts and grades, ranging from two to 14 words per text. Even the percentage contribution of the tokens ranged from 0.4% to 9.7% which corroborates what Coxhead (2000) says about AWL in academic texts not exceeding 11%. The narrative texts did not have academic words save for only one Grade 3 text (*How elephant became king*) which had only one word from that level (*finally*). The virtual absence of academic words is typical of narrative texts at the lower level of primary education though it is not totally uncommon to find some academic words in narrative texts. Mirshojae and Shragard's (2015) study concluded that the fewer academic words in a text the easier it will be since academic words contribute towards text complexity. Even though their occurrence is not high, they are important for understanding content subjects. A delicate balance is required - they should occur in texts (and in fact are unavoidable in academic language) but they should not occur excessively.

Contrary to expectation, the Grade 3 content subject texts had the highest percentage of words from the AWL (5.7; 7.1; 9.7) while the occurrence of academic words among the Grade 4 texts was lower (4.8; 5.4; 5.8). This suggests that the Grade 3 information texts were more difficult, which corroborates Mirshojae and Shragard's (2015) observation about text complexity due to high occurrence of words from AWL. The fact that Grade 3 information texts had higher AWL percentage may be due to differences in author styles and insensitivity to grade levels in material development. Even RE results indicated that the Grade 3 texts were far beyond the intended grade level, so the results from both analyses show converging findings. Learners find it challenging to read difficult texts and it leads them to playing the avoidance game and becoming reluctant readers, which negatively impacts on reading development (Trowbridge, Bybee & Powell 2000).

Compared to the narrative texts the information texts contained a wider range of words from different frequency levels while narrative texts had vocabulary from mainly high frequency levels and very few words, if any, from the mid frequency levels. It is from early narrative texts and everyday conversations that learners encounter the majority of high frequency words which are necessary for the comprehension of texts (Masrai 2019; Nation 2006; Hirsh 2003). It is not possible for learners to be able to comprehend mid and low frequency words when they do not have adequate vocabulary of common words from the high frequency levels. This means both teachers and texts work in tandem since learners learn through both explicit instruction and exposure via reading. Grade 4 is such a difficult phase for most learners, especially struggling readers, because the pedagogic focus would have shifted from decoding to comprehension (Steinman, LeJeune & Kimbroug 2006). The information texts represented typical academic texts in as far as the occurrence of vocabulary from the various frequency levels was concerned, albeit at the wrong grade level, since the RE results showed that the texts were generally not suitable for the intended grade levels. This highlights the material developers' lack of sensitivity to or consideration of their young audiences. If the material developers had been mindful of their audiences it would have been easier to detect more gradual consistent incremental changes from Grade 3 to 4.

4.3 Discussion of syllabus documents and texts analyses results

In this section I bring together the main threads from the syllabus analysis and textbook extracts analyses in order to provide answers to RQ1 and RQ2.

The syllabus documents

The syllabus is central to the teaching and learning process in schools and as such it should provide clear and detailed information so that the teachers use it with minimal difficulty. However, the analysis showed several flaws in the Zimbabwean Grade 3 and 4 English syllabus documents. Although the documents were well structured and had information expected in every syllabus pertaining to aims, outcomes, content, methods and resources and learner activities, they lacked coherence, clarity, explicitness and depth/elaboration. They also did not foreground reading literacy in a manner which portrayed its centrality to learning and there is no evidence of an up-to-date evidence-based approach to the teaching of reading. Also, there was no reference to academic language in the whole document.

Syllabus analysis criteria

The syllabus document was analysed (§ 4.1) following Hoadley et al.'s (2010) stipulations that a good curriculum should be coherent, clear, unambiguous and assessable.

Coherence is one important aspect of the syllabus material. The material in question showed that there was a smooth connection between the preamble, aims and outcomes. However, the syllabus did not show how Grade 3 material connects to Grade 4 or what the learners were expected to have achieved by Grade 3 which would help them progress to Grade 4. In fact, the outcomes and activities seemed the same and yet these are two different levels, for example when the syllabus mentions reading it states that learners should read for understanding and answer questions across the two grades. There is no distinction between what Grade 3 and Grade 4 should read which helps connects the two levels. A coherent, explicit syllabus is especially needed in contexts where literacy levels are low and teachers are under qualified or inadequately trained, and lack appropriate knowledge on reading and academic literacy (Piper, Shroeder, Trudell 2016; Naidoo, Reddy & Dorasamy 2014; N'Namdi 2005). In such contexts, an inadequate syllabus enables the low literacy situation to continue unabated because the teachers are not aware of the anomaly and cannot do much to rescue the situation.

Despite the fact that a syllabus ideally provides a road map on the teaching and learning of a subject, the syllabus in question was rather generalised and sparse. Some of the aims and outcomes were clearly stated, but there was no further elaboration which makes it difficult for the teachers who use the syllabus to make the correct interpretations of the syllabus. Hoadley et al. (2010) state lack of ambiguity as a characteristic of a good curriculum yet the syllabus documents in question are shrouded in ambiguity. A lot of issues are not explicitly stated (§4.1) for example time allocation, aspects of reading literacy, AL and the appropriate texts for the various activities across the grades. Teachers as the end users should not be left to guess what the document means on the various issues enshrined within the syllabus; that in itself negatively impacts the interpretation and the execution of the teachers' duties in the classroom. More detailed and explicit syllabus documents are required in order to do away with the ambiguity brought about by a shallow syllabus.

Lastly on the stipulations is the issue to do with the curriculum being assessable. Hoadley et al. (2010) state that this has to do with what is assessed and how it is assessed. Whether the syllabus material is assessable or not depends on quite a number of issues from the aims right through to the teaching and learning activities laid down in the syllabus document. If a syllabus is flawed like the one in question the assessment aspect will not yield positive results. For example, on reading fluency the syllabus across the grades states that learners should read fluently but there is nothing about how that should be done or the benchmarks on reading fluency to guide the teachers. This cuts across all the critical aspects of reading literacy (reading comprehension, vocabulary) and it makes the assessment process ineffective.

Communicative and functional approaches to teaching and learning

The syllabus documents state that they promote the use of the communicative and functional approaches to teaching and learning English (wherein the main focus of this study- reading literacy- falls). The two approaches are interrelated and emphasise the development of learners' ability to communicate in real life situations or what might be referred to as the use of language for meaningful purposes in authentic situations (Ahmed 2013). The approaches assume that learning occurs mainly through exposure to speaking, listening, reading and writing rather than from explicit instruction (Richards & Rogers 2001). Are these approaches appropriate for the Zimbabwean context? The context in question is an L2 context in a developing country where resources which promote exposure are limited and in most cases the teachers are ill-trained to teach the target language let alone reading literacy. Such an environment calls for explicit instruction as well as learning through exposure to authentic situations. Alternative approaches such as the additive bilingual approach may be more suitable, where the home language and the LoLT are allowed to grow in tandem, with the home language supporting the additional language (Cook 2003). Given the low literacy levels across schools in Africa, an approach that foregrounds reading, its development in both the HL and the LoLT and how best to teach it is also a curriculum imperative.

Role of reading underplayed

Since reading plays such an essential role in the teaching and learning process, especially reading in the LoLT, I assumed that the syllabus would clearly spell out more about reading. However, the Zimbabwean English syllabus documents for Grade 3 and

4 did not accord this key skill its appropriate position. Even the word frequency analysis showed that reading is mentioned insignificantly throughout the syllabus across the two grades (Grade 3 – 1.9% and Grade 4 – 1.2%) and the word *literacy* not at all, which reflects the position of reading in the syllabus. Reading is mentioned as one of the four language skills to be developed in the syllabus (together with listening, speaking, and writing) but nothing more is said. It is not distinctly presented as the backbone of all learning (Geske & Ozola 2008). Although the preamble mentions that English is a tool of communication in various spaces and that its teaching and learning should prepare children to be able to use it there is nothing about what reading entails (decoding, fluency, vocabulary, reading comprehension levels or strategies) or its assessment. In contrast, the South African syllabus seems to provide a far more detailed outline of various reading methods which learners should engage in, namely, shared book reading, paired and independent book reading, group guided reading and how all that should be done (DBE 2011). The South African syllabus also provides guidelines for the number of words to be known by L2 English learners, as well as the use of dictionaries and vocabulary books (DBE 2011). Without clear guidelines teachers in Zimbabwe are left to make independent interpretations which might be detrimental to the overall learning process because learners who cannot read cannot learn.

The text extracts: text and vocabulary features

Not unexpectedly, the text and vocabulary analysis of the information and narrative text extracts showed that the two genres were different. The textual features showed that information texts were more challenging compared to narrative text extracts across the two grades in several ways. Mean length of paragraphs, sentences and words were longer in information texts than narrative texts, suggesting a higher level of difficulty among the information texts. The vocabulary profiles also showed that the majority of information texts included a wider range of words from almost all the frequency levels while the narrative texts mostly used words from the high frequency levels and to a lesser extent from the mid frequency levels.

Misalignment of text level and grade level

The readability analysis results showed that the texts were generally not aligned to the target grade levels. The lower the RE index, the more difficult the text is to read. None of the Grade 3 information texts had RE indices that were appropriate for Grade 3 level.

The RE scores for Grade 3 ranged from 47.5–82.1 which was equivalent to grades 10.1 and 4.4 respectively. The same was observed about Grade 4 information texts; only two texts were at grade level the rest ranged from grade 5.4 (74.7 RE score) to 12.4 (50.6 RE score). This indicates that the texts were beyond the intended target readers. The Flesch Reading Ease analysis classifies under ‘fairly difficult’ texts suitable for Grade 10 to Grade 12 learners (DuBay 2004). In this case giving Grade 3 or 4 learners a Grade 10/12 text is expecting too much especially in L2 contexts where there are language proficiency and background knowledge issues among other adverse factors prevalent in the learning environment. In contrast, the narrative texts a slight downward alignment, with the text levels lower than the intended grade levels (these ranged from 2.0–3.8). This is perhaps more appropriate for ESL contexts, especially in the early years, although the wide variations indicate inconsistency in style of writing as well as insensitivity to the learners’ reading and cognitive levels on the part of the writers. The information text misalignment in particular relates very well with what Piper (2010) observed about curriculum or instructional content in many low-income countries, namely that it is too challenging and ambitious for learners, which might lead to frustration or learners just giving up. When educational material is developed a number of factors should be taken into consideration, such as consistency between grade level and cognitive level, learners’ experience or background knowledge (especially in the case of ESL learners), as well as continuity in the development of concepts and skills to facilitate smooth transitions between key stages of learning inter alia (Education Bureau 2018). All these factors help facilitate the reading to learn phase among learners as they progress with their studies. The text analysis makes one wonder whether educational material is developed by experts who are aware of, let alone follow, these standard conventions. The responsible Ministry might also lack the necessary quality control mechanisms to attend to such anomalies before textbooks are distributed for use in schools.

Academic Language use

The information texts displayed several features of academic language. For example, most information texts had a number of passive sentences and one narrative text also had passives (*Bush fire*). Although passive sentences are typical of academic texts, they also contribute to text difficulty. It is normal for academic language to pose some challenges because it is not ordinary language (Gottlieb& Ernst-Slavit 2014) and

acquiring this language register is necessary for school success. As early as Grade 3, learners are expected to learn new information from content areas and this is conveyed through academic language of which passives are a characteristic feature (Snow & Uccelli 2009).

There was also the use of nominalisations (*land reclamation, deforestation*) and specialised and more abstract vocabulary (*recycling, contamination, sanitation*) in the content subject areas which is typical of academic language in textbooks. From Grade 3 learners are expected to start reading texts which make use of academic language as they transition to the reading to learn phase. However, it also has to be borne in mind that Grade 4 is that stage where in most African countries English or any other former colonial language becomes the LoLT (Sibanda 2017; Pretorius & Mampuru 2007; Prinsloo 2007) though this occurs on paper in Zimbabwe because learners are taught in English right from early childhood education (§1.4.2) but that does not make the learners' language proficiency challenges any better. The use of English as the LoLT calls for care to be given in the teaching of the language and reading in order to facilitate effective learning. L2 learners need a lot of scaffolding, awareness raising and more explicit instruction to enable them to transition smoothly to higher grades where academic language in the texts becomes increasingly complex. Moreover, as learners move to higher grades comprehension takes centre stage (Sibanda 2017; Snow & Mathews 2016; Pretorius 2014) in all the reading activities that they engage in across all the subjects. However, without explicit comprehension instruction and the relevant vocabulary and comprehension strategies everything comes to naught.

It is important to note that in as much as the RE analysis helps indicate how difficult or ease a text is there are limitations associated with this kind of analysis. For example, the assumptions that the longer the sentence the more difficult a text is, or the more passives in a text the more difficult a text is, generally hold true. However, it was not always the case with the given texts where, for example, a text with a greater percentage of passives had a higher RE index (and was hence easier to read) than one with fewer passives. Text readability is complex and depends on a number of factors. Furthermore, readability analysis excludes quite a number of factors critical to text comprehension such as the reader's background knowledge, motivation, and cognitive processes, as well as textual factors like text layout or writing style and difficulty of concepts (Janan & Wray 2012; Burns 2006). These factors contribute immensely to the readability and

comprehension of texts. What this might mean to scholars is that RE analysis should be done together with other ways of analysing texts in order to circumvent its limitations. That is why in this section I incorporated the vocabulary profiles to provide another dimension to the RE analysis.

It takes teachers who are knowledgeable of reading literacy content and pedagogy to help learners transition smoothly from ordinary language (and knowledge) to the reading to learn phase given the complex language and content associated with it. For example, the introduction of specialist terms should be highlighted at the beginning of each topic so that it becomes the teachers' duty to explicitly teach the words beforehand in order to make it possible for learners to understand them when they read the texts or when the topic is taught. Or there could be a gradual build up from grade to grade which helps to guide the material developers on the use of specialist vocabulary.

Vocabulary frequency levels

The vocabulary profile analyses showed that K1 words were dominant across both genres, but especially so in the narrative texts. All the Grade 3 texts reached the lexical comfort zones (95%; 98%) after adding words from the mid frequency levels (mainly K4/K5) which indicates that the texts had moved from the elementary level where the 95% text coverage is mostly attained at K1-3 levels as shown in the narrative texts. Among the Grade 4 information texts only two (*Families, Work and leisure*) attained the 95% text coverage at K1-3 levels the rest reached that text coverage after adding the mid frequency level words again indicating that the level covered by the text was past the elementary stage. Generally, vocabulary in information texts is challenging and requires a lot of scaffolding on the part of the teacher in order to facilitate effective learning, especially in ESL contexts. Trowbridge et al. (2000) state that textbooks which are inappropriate to the levels of the intended users (in this case, far above their grade level) might lead to frustration and boredom and once this happens learners develop negative attitudes towards reading and end up avoiding reading at all thereby affecting effective learning. Considering the fact that Grade 3 learners are at a stage of transitioning to a higher level (reading to learn) exposing them to vocabulary and content which is several grades above their grade level is highly problematic, especially considering that they have to master the subject content as ESL readers which might be equally new to most of them. The situation is exacerbated by the fact that this is done

in a language which is not the learners' L1 so they do not have the advantage of a larger vocabulary that L1 readers would have. Moreover, the L2 learners will be learning the content while at the same time learning the language of instruction (Pretorius & Spaul 2015) which is more likely to give them more challenges compared to their L1 counterparts. This analysis shows that although the textbooks used in Zimbabwean schools to some extent reflect features and trends found in English texts elsewhere in the world, more suitable alignment between grade level and text difficulty needs to be urgently attended to.

The inclusion of vocabulary from various frequency levels helps expose learners to a variety of vocabulary especially from the onset of primary education which is good for learning since texts become more complex and focused from lower to higher grade levels and also vocabulary development is quantitatively and qualitatively cumulative (Pretorius & Stoffelsma 2017). Learners who are exposed to large and varied vocabulary earlier are at an advantage compared to learners who do not have such exposure (Hart & Risley 1995). However, this also implies that teachers should engage different vocabulary teaching strategies and a lot of scaffolding in order to facilitate vocabulary learning in their classrooms (Beck, McKeown & McCaslin 2002).

None of the texts from the three content subjects for both grades exceeded the 11% maximum threshold for academic words (Coxhead 2000). Despite their seemingly low occurrence even in academic texts, AWL knowledge is crucial to educational success. Masrai (2019) argues that accumulating increasing amounts of vocabulary in the mid frequency range is very beneficial. Once learners have transitioned to reading to learn, attention should be given to the development of learners' mid frequency vocabulary through both incidental and explicit instruction. In fact, there is no harm in knowing more words; Laufer and Ravenorst-Kalosvki (2010) assert that the more vocabulary learners know the safer they are in reaching the appropriate text comprehension.

4.4 Conclusion

This chapter looked at the Grade 3 and 4 English syllabus and extracts from typical Zimbabwean Grade 3 and 4 textbooks. The analyses of the syllabus documents showed that reading literacy did not receive the emphasis that it should receive given its centrality to the teaching and learning process across the school curriculum. The syllabus portrayed reading as one of the language skills, no detailed information was

supplied on what it entails and how it should be taught or assessed, even the relevant sources of learning material were not explicitly presented. This opens it up to a lot of individual interpretations or misinterpretations of the syllabus, which ultimately affects the teaching and learning process. Maybe the syllabus documents require a complete revamping in order to make it more user friendly. It was also noted that while the information and narrative texts exhibited typical features associated with their genres, the readability of majority of texts were not aligned with the intended grade levels; most information extracts were several grades higher while the narrative texts were aligned to lower grades. The vocabulary profiles also helped to show the kind of vocabulary learners were exposed to. On the whole, as expected, the narrative and information extracts contained different textual and lexical features.

Chapter 5: Quantitative analysis

5.0 Introduction

This chapter deals with the quantitative results from the reading comprehension (RC) and oral reading fluency (ORF) tests as well as an assessment of the learners' compositions since they provide corroborating evidence of the learners' literacy development. The RC and ORF assessments address RQ3a-f while the composition assessments address RQ3g and RQ4. Below is a recap of the questions explored in this chapter:

RQ3 How do the Grade 3 and 4 learners perform on reading literacy assessments appropriate to their grades in the targeted schools?

3a How do the targeted Zimbabwean Grade 3 and 4 learners perform in reading comprehension (RC) and oral reading fluency (ORF) assessments?

3b How does performance on RC and ORF differ between the Grade 3 and 4 learners in this study?

3c What is the relationship between RC and ORF?

3d How does Grade 3 and 4 learner performance on RC and ORF differ in terms of gender?

3e How does Grade 3 and 4 learner performance on RC and ORF differ in terms of age differences within the grades?

3f How does Grade 3 and 4 learner performance on RC and ORF differ across the four schools in the study?

3g How is writing developed to support reading development in the Grade 3 and 4 learners?

RQ4 What do the selected primary schools do to orientate children to reading literacy?

5.1 Reading assessment results

To recap, the RC comprised a narrative passage from the 2011 prePIRLS test entitled *Brave Charlotte* (See Chapter 3). Test reliability was good, with a Cronbach alpha of .86 recorded for the test as a whole including both grades.

The data was also tested for normality using the Shapiro-Wilks test. For Grade 3 data, $W(df) = .97(188)$, $p > .000$, and for Grade 4 data, $W(df) = .95(187)$, $p > .000$. In both cases the results indicated that the data were not normally distributed. As a result, nonparametric tests were used for further analysis of the data.

3a How do the targeted Zimbabwean Grade 3 and 4 learners perform in reading comprehension (RC) and oral reading fluency (ORF) assessments?

Table 5.1 below shows descriptive statistics of the RC tests for both grades, using the full sample. The RC test comprised 18 questions and the total score was 20. The raw scores have been converted to percentages in the table.

Table 5. 1: Descriptive statistics for Grade 3 and 4 RC tests

School	N	Mean%	SD	SE	% learners scoring zero	Min%	Max%	Lower Upper Bound
Grade 3	188	40.7	23.3	1.7	2.1	0	90	37.3 – 44.1
Percentiles								
25 th		20						
50 th		40						
75 th		60						
Grade 4	187	45.9	23	1.7	1.1	0	85	42.5 – 49.5
Percentiles								
25 th		25						
50 th		45						
75 th		65						

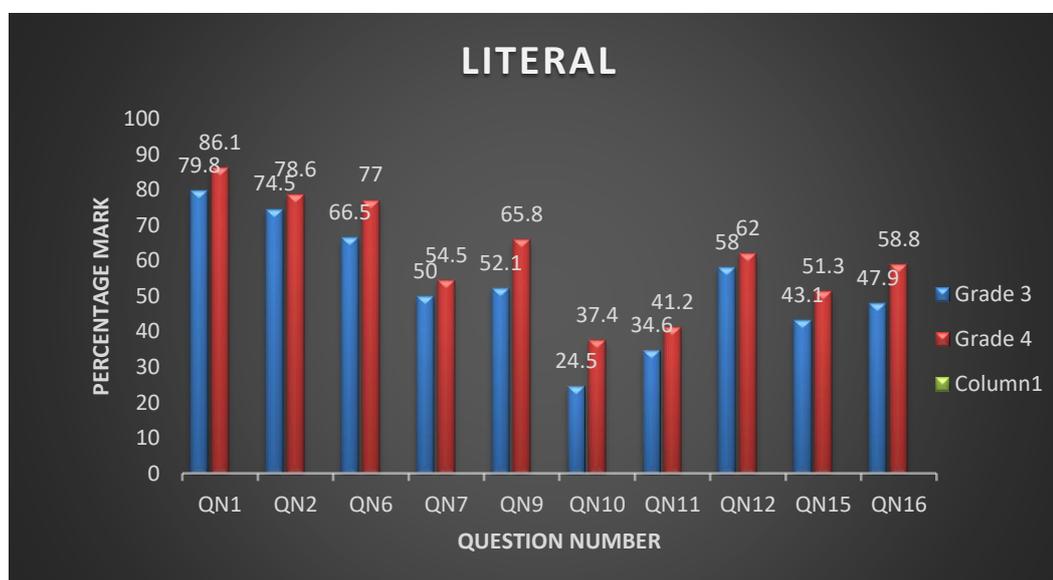
The Grade 3 learners generally did not perform well, with a mean score of 40.7% and a large SD, showing that there was a lot of variability. The average performance at the 25th percentile was 20% while the stronger performers, those at the 75th percentile, had

an average of 60% which shows that performance even at the 75th percentile was not very high.

Although there was a slight increase in RC mean to 45.9% among the Grade 4 learners, performance was still low and the SD also showed a lot of variability. At Grade 4 level the learners' performance at the 25th, 50th and 75th was marginally better than Grade 3 performance, though not impressive. From both grades there were learners who got zeros (4 and 2 respectively) which suggests that the concerned learners were non-readers.

RC is further examined in terms of performance at different comprehension levels, according to question types. Below are graphs which show both Grade 3 (blue) and 4 (red) learners' performance at different comprehension levels (literal, inference, integration and evaluation). In all, 10 of the 18 questions were literal and Figure 5.1. shows that learners generally performed better on literal questions across the two grades, with Grade 4s having slightly higher scores for literal questions which is to be expected because they have a developmental advantage over the Grade 3s.

Fig 5. 1: Literal questions



As to be expected the learners performed better in the literal questions since these questions are simple and the answers are explicitly stated in the text. Even so, performance on three of the literal questions (10, 11, 15) was surprisingly poor across both grades, suggesting that learners have problems locating explicitly stated information in a text. More on responses will be discussed in section 5.2.

Fig 5.2 shows the performance of learners on straightforward inference questions, which comprised four of the 18 questions. Performance dropped across both grades when learners had to make use of clues provided in the text to answer questions.

The remaining four questions involved integrative (Q3,17,18) and one evaluative question (Q4). Performance on these higher order questions is shown in Figure 5.3.

Fig 5. 2: Straightforward inference questions

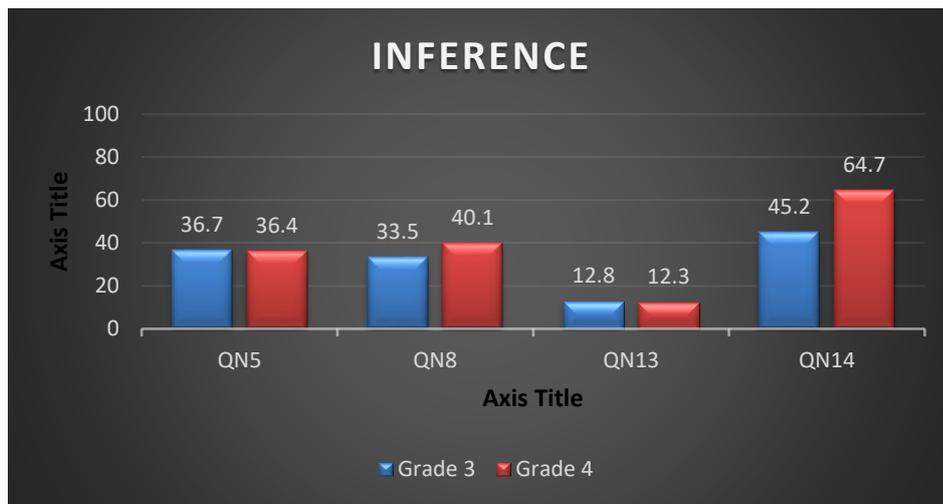
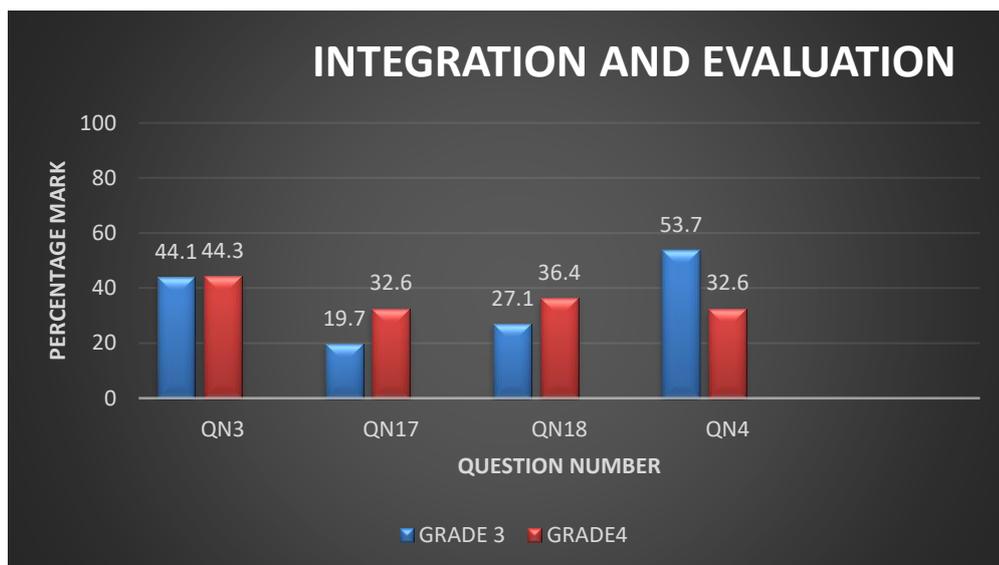


Fig 5. 3: Integration and evaluation questions



Learners did not also perform well in these latter two categories, which shows that higher order questions were a challenge to both grades. In two of the four questions,

Grade 4 learners performed the same or worse than the Grade 3s. Clearly, higher order questions were a challenge for the learners, though this is not an uncommon pattern among learners worldwide.

Table 5.2 below presents the descriptive statistics for Grade 3 and 4 according to question types, showing raw and percentage scores. The questions were categorised into two groups - literal and higher order questions, where higher order questions were grouped together to give a composite score.

Table 5. 2: Descriptive statistics for comprehension levels

Total raw score 20 (%)	No.	Means for question types (%)	SD (%)
Grade 3	188		
Literal – 10 items (50%)		5.3(26.5)	3.0(14.9)
Higher order – 8 items (50%)		2.8(14.2)	2.1(10.30)
Grade 4	187		
Literal – 10 items (50%)		6.1(30.6)	2.9(14.4)
Higher order – 8 (50%)		3.1(15.4)	2.1(10.5)

There was a slight increase among the Grade 4s in relation to literal questions though it was minimal. The SD showed a lot of variability at the literal level in both grades. However, mean performance on the higher order questions remained low across the two grades and showed minimal growth from Grade 3 to Grade 4.

ORF performance

A sub sample of learners was assessed for their ORF performance and the results showed that both the Grade 3 and 4 learners were slow readers. As explained earlier in §3.4.3.2, the learners were further placed into three sub groups based on their RC performance. The learners were classified using Chall’s (1986) stages of reading development since the performance showed that learners operated at different levels of reading literacy development despite being in Grade 3 or 4. The groups were: Reading to learn readers (the best performers), Confirmation and fluency readers (the average performers) and Beginning readers (the weakest performers). Table 5.3 below shows the descriptive statistics for ORF.

Table 5. 3: Descriptive statistics for Grade 3 and 4 ORF tests

	No.	Total mean words read	Total mean errors	Mean wcpm	SD	Min wcpm read	Max wcpm read
Grade 3 Mean	36	77.9	6.6	71.3	31.6	5	153
Beginning readers	12	53.3	9.6	43.7	26.2	5	85
Confirmation and fluency readers	12	76.6	5.7	74	15.3	46	94
Reading to learn readers	12	100.8	4.6	96.2	27.2	50	153
Grade 4 Mean	36	70.2	6.1	72.9	34.2	0	172
Beginning readers	12	47.7	7.5	40.1	23.5	0	71
Confirmation and fluency readers	12	82.7	6.8	75.4	10.8	58	92
Reading to learn readers	12	107	3.9	103.3	29.3	47	172

The above results show that overall there was great variability in fluency within and across grades. Overall, it was surprising that the Grade 4 learners did not show growth in fluency, neither did they read noticeably more accurately or faster than their Grade 3 peers, except for the Reading to learn readers. These readers in both grades on average read more than double the rate of the Beginning readers. In each grade, learners who performed poorly on the RC test read far more slowly and made more errors than learners who were in the other two categories.

Accuracy, as reflected in the errors that readers make during the reading process, is an important factor in fluency. Overall, there was not much difference in the accuracy of the two grades as shown by the number of errors committed (6.6 for Grade 3s and 6.1 for Grade 4s). Within the grades the Reading to learn readers were more accurate compared to the other two groups.

3b How does performance on RC and ORF differ between the Grade 3 and 4 learners in this study?

A nonparametric Mann Whitney test was carried out to find out if there was significant difference in RC performance between the two grades. The results show significant difference between the two grades: $U = 15344.0$, $p = .033$.

Since the RC questions were categorised into literal and higher order questions a nonparametric Wilcoxon test was carried out to test for significant difference in learner performance between the composite scores for the literal and higher order questions within the two grades. The results showed that there were significant differences

between literal and higher order questions within the two grades: Grade 3s $Z= 15.423$, $p= .000$ while results for Grade 4s were: $Z= 11.215$, $p= .000$.

A further Wilcoxon test was carried out to determine if there was significant difference across the grades in both categories (literal and higher order). For literal questions the results showed that there was no significant difference: $Z= .000$, $p= 1.000$ and the same was also observed for higher order questions: $Z= -1.000$, $p= .317$.

Another way of assessing reading growth from Grade 3 to Grade 4 is to determine effect size, which reflects magnitude of development. Effect sizes of .4 are considered small, .5 medium while .8 is large (Sullivan & Feinn 2012). Cohen's d showed small growth: .28 for growth in literal questions from Grade 3 to 4, and the same applies for Grade 3 and 4 higher order questions with $d= .11$ showing no meaningful growth.

A Mann Whitney was carried out to determine significant difference between Grade 3 and 4 ORF performance: $U= 643,0$, $p= .955$ showing that there was no significant difference.

ORF results were also tested for effect size across the two grades: $d= .05$ showing small effect size implying that there was no meaningful ORF growth from Grade 3 to 4.

3c What is the relationship between ORF and RC?

While the descriptive statistics clearly show that ORF increases across the three RC groups (with Reading to learn readers reading more accurately and faster than their average peers, and Confirmation and fluency readers reading more accurately and faster than the Beginning readers), a nonparametric Spearman correlation test confirmed the relationship between RC and ORF performance at both grade levels. Strong and significant relationships were obtained, particularly for Grade 4.: Grade 3s $r_s= .78$, Grade 4 $r_s= .85$.

3d How does Grade 3 and 4 learner performance on RC and ORF differ in terms of gender differences within the grades?

Table 5.4 shows the RC performance of Grade 3 and 4 boys and girls. The means show that, at face value, the girls performed better than the boys.

Table 5. 4: Descriptive statistics for RC performance between the genders

Grade	No.	Mean%	SD	SE	Min	Max	Lower Bound	Upper Bound
Grade 3	188							
Girls	89	47.6	24.1	2.6	0	90	42.4	52.8
Boys	99	34.6	20.9	2.1	0	90	30.8	38.8
Grade 4	187							
Girls	102	48.6	23.1	2.3	0	85	44	53.2
Boys	85	42.6	22.5	2.4	5	85	37.8	47.4

A nonparametric Mann Whitney test was carried out to determine if there was a significant gender difference in performance at grade level. The results show significant gender difference in Grade 3 but not in Grade 4: Grade 3: $U = 69.5$, $p = .004$; Grade 4 $U = 116.0$, $p = .149$. The gender gap in RC seems to narrow slightly in Grade 4.

Table 5.5 below presents the ORF descriptive statistics for both genders across the grades.

Table 5. 5: Descriptive statistics for ORF tests showing gender performance

Grade	No.	Total mean words read	Total mean errors	Mean wcpm	SD	Min wcpm read	Max wcpm read
Grade 3	36						
Girls	17	92.8	5.8	87	26.8	33	153
Boys	19	64.5	7.3	57.2	29.4	5	115
Grade 4	36						
Girls	17	88.3	6.2	82	36.5	18	72
Boys	19	71.1	6	64.8	30.7	0	109

Grade 3 girls read more accurately and fluently than boys (87wcpm versus 57.2wcpm), a difference of about 30 wcpm. The most fluent girl read 153wcpm compared to the most fluent boy at 115wcpm showing a wide gap between the genders.

Grade 4 girls also read more accurately and fluently than the boys (82wcpm versus 64.8wcpm) about ten words above the overall grade mean, while boys read about eight words below the overall grade mean.

A Mann Whitney test was carried out to determine significant gender difference in ORF performance at grade level. Once again, the results show significant ORF gender difference in Grade 3 but not in Grade 4: Grade 3: $U = 69.5$, $p = .004$; Grade 4 $U = 116.0$, $p = .149$. Here too the gender gap in ORF seems to narrow slightly in Grade 4.

3e How does Grade 3 and 4 learner performance on RC and ORF differ in terms of age differences within the grades?

Although each child is unique, children also display maturational features that characterise general normative behaviour for their age. Examining general maturational factors compliments rather than negates unique features of reading growth. The Grade 3 and 4 learners were thus also categorised according to age groups. The appropriate age for Grade 3 learners in Zimbabwe is 8 years while for Grade 4s it is 9 years. Three Grade 3 age groups were identified: under 8 (below grade age), 8 (grade age learners), and 9 years and older (above grade age). For Grade 4 it was similar: under 9 (below grade age), 9 (grade age learners), and 10 years and older (above grade age). Table 5.5 below shows the descriptive statistics for Grade 3 and 4 learners by age group.

Table 5. 6: Descriptive statistics for RC performance by age group

Age group	No.	Mean %	SD	SE	Min	Max
Grade 3						
Under 8	87	42.7	24.6	2.6	0	90
8	84	41.6	22.1	2.4	5	85
9 years and older	17	26.2	17.6	4.3	0	60
Grade 4						
Under 9	76	50.5	22.5	2.6	5	85
9	101	43.7	22.2	2.2	5	85
10 years and older	9	27.8	25.4	8.5	0	60

While at face value the descriptive statistics for RC show that although the youngest group (below grade age) seem to outperform the grade age learners, the SDs for all the

age groups showed a lot of variability across the grades. What is striking is the very poor performance of the above grade age learners in both grades. Clearly, maturation did not confer an advantage on these older learners, suggesting that they were having reading challenges in their early school years.

A Kruskal-Wallis test was carried out to check for significant age differences in RC within the two grades. The results for Grade 3s showed that there were significant differences across the age groups ($p = .025$). Dunn's post hoc pair wise comparisons showed that in Grade 3 no significant differences obtained between the under 8- and 8-years groups ($p = 1.000$), but there were significant differences between the 8 and 9+ group ($p = .032$) and, naturally, between the youngest (under 8) and oldest (9+) groups ($p = .024$). Among the Grade 4s there were no significant differences ($p = .16$).

Table 5.7 below shows the descriptive statistics for ORF by age group across the two grades.

Table 5. 7: Descriptive statistics for ORF by age group across Grade 3 and 4

Age group	No.	Total mean word read	Total mean errors	Mean wcpm	SD	Min wcpm	Max wcpm
Grade 3	36						
Under 8	20	75.55	7.3	68.75	37.59	5	153
8	14	83	5.36	77.64	21.78	33	115
9 years and older	2	65	8.5	56.5	27.58	37	76
Grade 4	36						
Under 9	15	82.8	5.27	77.53	28.67	24	130
9	20	78.35	6.65	71.4	38.12	00	172
10 years and older	1	42	7	35	-	35	35

The above results show that grade age learners were the fastest readers compared to the younger and older learners among the Grade 3 learners. The high SD on the other hand indicates that there was a lot of variability within the age groups especially among the younger learners (37.59). The appropriate grade age group was even more accurate than the other two age groups. Maturation did not help the older learners in this grade.

Among the Grade 4 learners, the younger than grade age group read faster than the other two age groups, unfortunately the older than grade age group had only one learner. The high SD for both age groups show a lot of variability especially so among the appropriate grade age group (38.12). Again, maturation did not present any advantage to the older learners.

A Kruskal Wallis test was carried out in order to test for significant difference across the age groups within the two grades. The results for both grades showed that there is no significant difference across all the age groups across Grade 3 and 4. The sig values were: $p = .503$ and $p = .473$ respectively. As a result, a post hoc test could not be carried out for pair wise comparisons.

3f How does Grade 3 and 4 learner performance on RC and ORF differ across the four schools in this study?

Table 5.8 below shows the RC school means according to grades.

Table 5. 8: Descriptive statistics for school RC performance

Grade	No.	Mean	SD	SE	Min	Max	LB	UB
Grade 3	188	40.7	23.3	1.7	0	90	37.3	44.1
School A	46	33.7	19.3	2.9	0	80		
School B	43	31.1	18.8	2.9	0	70		
School C	48	36.3	22.2	3.2	0	90		
School D	51	59.4	20.3	2.8	10	90		
Grade 4	187	45.9	23	1.7	0	85	42.5	49.5
School A	45	39.2	23.1	3.4	0	80		
School B	38	33.6	18.7	3	5	80		
School C	50	50	21	3	10	85		
School D	54	56.2	22.1	3	5	85		

The RC descriptive statistics show that School B had the lowest means at both grade levels (31.1% and 33.6% respectively) while School D had the highest means at both grade levels (59.4% and 56.2% respectively).

A Kruskal-Wallis test showed significant differences across schools for RC, $p = .000$. Dunn's post hoc test for Grade 3 showed significant differences between School D on the one hand, and the three other schools, but not between the Schools A, B or C: A and D ($p = .000$), B and D ($p = .000$), C and D ($p = .000$). The post hoc results for Grade 4s showed an almost similar trend save for Schools D and C where the gap between D and C narrows and is no longer significant. There were significant differences between School D and A ($p = .002$) and between School D and B ($p = .000$), but not between Schools D and C ($p = .165$). School B was the weakest performing school and showed significant differences with all the others: B and A ($p = .030$), B and C ($p = .006$) and B and D ($p = .000$).

Below are the ORF descriptive statistics for the 4 schools according to grade.

Table 5. 9: ORF descriptive statistics

	No.	Total mean words read	Total mean errors	Mean WCPM	SD		Min wcpm read	Max wcpm read
Grade 3	36	77.9	6.6	71.3	31.6		5	153
School A	9	83.4	6.6	76.9	31.9		5	115
School B	9	67.7	6.8	61	18.7		37	92
School C	9	67.9	6.7	61.1	31.2		13	112
School D	9	92.6	6.6	86	39		14	153
Grade 4	36	70.2	6.1	72.9	34.2		0	172
School A	9	69.7	5.7	63.9	41.4		0	130
School B	9	74.4	7	67.4	28		24	101
School C	9	86.3	5.4	80.3	41.7		20	172
School D	9	86.3	6.2	80.1	25.3		5	153

In relation to Grade 3 ORF School D outperformed all the other schools with a mean of 86wcpm. Among the Grade 4s School C and D were similar (a marginal and nonsignificant difference of .02wcpm). However, the Kruskal-Wallis results for schools at Grade 3 and 4 were $p = .137$ and $p = .640$, respectively, showing no significant

differences in ORF between the schools. All schools showed large variances in ORF scores.

5.2 Qualitative analysis of learners' RC responses across Grade 3 and 4

To further investigate in what way learners perform poorly on the RC test, this section briefly examines examples of the learners' responses to some of the RC questions and what they suggest about reading comprehension among the learners in question.

Generally, as was shown in Fig 5.1-Fig 5.3, both grades' performance on literal questions was better than for more cognitively demanding questions, even though performance at the literal level was still low. Most learners who scored at least one mark in the test did so because they managed to answer one of the literal questions correctly. Literal questions accounted for half the total scores and there were both constructed response questions and multiple-choice questions in the test. Even so, incorrect constructed responses to literal questions can shed some light on how some learners misconstrue meaning while reading.

The first question, Q1: *Who is Jack?* was a constructed response question. The answer is explicitly stated in the text: *...an old dog named Jack* and was so easy that the majority got it correct (79.8% among the Grade 3s and 86.1% among the Grade 4s). That was the only question which scored such high response rates across the two grades out of all the questions in the RC test. Generally, the incorrect learners' responses showed that they did not read the text carefully and as a result failed to locate explicitly stated information in the text. Most of those who got it wrong wrote: *Jack was the shepherd*. The learners' responses showed that they missed important information in the sentence that contained the explicitly stated information (*They had a shepherd to look after them and he has an old dog named Jack*) and read it in bits and pieces.

Another trend across a number of literal questions which required constructed responses was to give information from the text that was not relevant to the question, for example Q2: *What did Jack try to do with Charlotte?* The answer is in the following sentence: *Jack tried to keep Charlotte under control, but she was not scared of him*. Although the response rate was 74.5% and 78.6% respectively, incorrect responses included: *Jack try to do with Charlotte secretly roamed through/ Just stood shyly by their*

mothers/ Jack try to help but he did not do that/ Jack and Charlotte made a secret/ Jack tried to do with Charlotte because one day terrible thing happened.

In Q10: *Why couldn't Charlotte hear the older sheep?* the sentence containing the answer reads: *But Charlotte couldn't hear them. She had already left to find the right way to the valley.* The response rate for Q10 was 24.5% and 37.4% respectively, which shows that the majority could not locate the relevant information despite it being a literal question. Some learners wrote: *She find her way to the valley/ Charlotte said I will go.* As these examples show, many learners seemed to randomly lift chunks of irrelevant information from the text that did not apply directly to the question. The same applies to questions 11 and 15 which also fall among the most poorly answered literal questions. Most of the learners across the two grades could not provide correct constructed answers even though the answers were explicitly stated in the text. This mismatch between literal questions and their provenance in the text suggests that weak readers are having problems constructing accurate meaning at the level of the text base. Their poor ORF skills may contribute to this – because of their slow and inaccurate decoding skills, they cannot hold information in memory long enough to construct meaning accurately, hence the random chunking of information.

There were also multiple-choice literal questions which posed challenges for learners, for example Q6: *Why was the shepherd lying in the grass?* The text where the answer resides is: *One day something terrible happened. The shepherd fell over and broke his leg. Jack barked and circled around him ... The shepherd lay in the grass not knowing what to do.* The response rates were 66.5% for Grade 3s and 77% for Grade 4 learners. The correct answer was option B *he had broken his leg* but quite a number chose Option A: *He didn't want to visit the farmer.* Option A may have tapped into background knowledge on avoidance behaviour (inaction - lying down - instead of action – doing something) and several learners opted for this rather than finding clues in the text for the answer.

Learners' responses to some of the multiple-choice literal questions also suggest that learners were guessing the answers though the answers were explicitly stated in the text. For example, Q9 *How did the older sheep feel when Charlotte left?* The response rate was 52.1% for Grade 3s and 65.8% for Grade 4s. The section which contains the answer reads: *Out of the question! A sheep has never gone to the village. The other*

sheep were beside themselves with worry. But Charlotte couldn't hear them. The correct answer was C *worried* (a common word that by Grade 3 should be familiar to most learners, yet some learners chose option B *relieved*, maybe without knowing what this meant. Maybe the learners did not read the text carefully or accurately to make the connection between *worry* – *worried* as a clue to selecting the most appropriate option. This apparent random guessing also happened on several other multiple-choice questions irrespective of the level.

Generally, learners performed better on multiple-choice literal questions across the two grades as already explained, but their performance on constructed responses was mixed. A closer look at the literal questions showed that those questions which required short, simple recall of information (e.g. *Jack* in Question 1), especially among constructed responses, were better answered than those which required a slightly more expanded response, even though the relevant information was explicitly stated (She had already left/she wasn't there, in Question 10). For example, Questions 1, 2 and 7 versus 10, 11 and 15. This helps to provide more insight on the conclusion made about the learners' performance on multiple-choice questions that most of the correct answers could be a result of guess work and not text understanding. Since there was no option for guess work for the literal questions which demanded text understanding as well as construction of responses, they resorted to lifting chunks of irrelevant information from the text as answers to the questions.

For straightforward inferences there were also constructed responses and multiple-choice questions. For constructed responses Q5 *Why didn't Jack notice when Charlotte went out at night?* 36.7% of the Grade 3s and 36.4% of Grade 4 learners got the question correct which shows that it was poorly done by the majority of learners. The section of text which contains the answer reads: *When all the other sheep were sleeping she would slip... Even Jack didn't notice. But he didn't have very good ears these days.* Most of those who got it wrong wrote *Jack did not notice when Charlotte went out at night because he was asleep/ Jack did not notice when Charlotte went out at night because Charlotte was brave.* The responses show that the learners did not read the text carefully and also probably lacked background knowledge which would help them understand the text better. They seemed to be doing a lot of guess work. It could also be that they lacked comprehension skills and so they thought that comprehension questions are like

general quiz questions, without realising that they should refer to the text to answer the questions.

Regarding the multiple-choice questions under the inference category learners did not do well especially Q13 where the response rate was 12.8% and 12.3% across the two grades. Those were the lowest percentages across all the questions despite the fact that they were straightforward inference questions whose answers had clues from the text. Q13: *Why was Charlotte almost sorry to reach the farmer's house?* The correct response is contained in the following text: *It was so nice to speed along in the truck that Charlotte was almost sorry when they reached the farmer's house.* The most common response was D *she was worried about the shepherd.* Yet the correct response was C *she liked the ride in the truck.* Similarly, in Q14: *How did the farmer know that something was wrong?* The response rate was 45.2% and 64.7% across the two grades. The answer is contained in the following text: *"It's Charlotte," said the farmer, and she is all alone. Something must be wrong.* The most common response was D *Charlotte looked sorry* and yet the correct option was A *Charlotte was all alone.* The learners' responses suggest that they seemed to have problems linking information in adjacent bits of text: *she is all alone. Something must be wrong.* and could not match text information with questions they just guessed the answers.

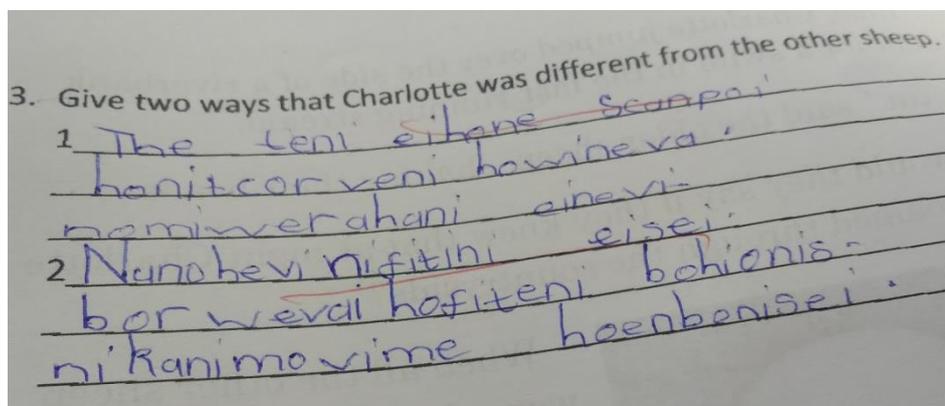
The learners' responses to interpretation and integration questions also showed lack of comprehension, poor interpretation and inability to integrate information. All the three questions here needed constructed responses for example: Q3: *Give two ways that Charlotte was different from the other sheep.* The response rate was 44.1% and 43.3% respectively. The part which has the answer reads: *Charlotte was different from all the other sheep right from the start. When all the other lambs just stood shyly by their mothers, Charlotte was leaping around, ready for adventure. When all the other sheep were sleeping, she would slip away to her special place and gaze at the moon.* The wrong responses were varied here for example: *to look after them and he had an old dog/ Two ways that Charlotte was different from the other sheep right and start/ Two ways that Charlotte was different from the other sheep are shepherd and Jack.* For this question the majority of learners lifted chunks of information from the text and reproduced them as their answers without answering the question. The type of questions in this category are higher order questions and it is challenging for learners to exhibit

higher order thinking skills if their decoding skills are still slow and effortful, making it difficult to store information in working memory as they read.

There was only one evaluation question (Q4) but surprisingly more Grade 3 learners (53.7%) got it right compared to Grade 4 learners (36.4%). The question was a multiple-choice question – *Where was Charlotte standing in the picture on the opposite page?* There was a picture alongside a text which read: *When all the other sheep were sleeping, she would slip away to her special place...* Option A *in her special place* was the correct response (the picture in the passage showed Charlotte standing on a high place like a hill/anthill looking at the moon) but the most common response was Option B *by the stream*. Learners could not glean the most appropriate answer from the presented options which means they could not use the text as their basis for the answers despite being given some clues.

There was one Grade 3 learner who wrote unintelligible answers as shown in Figure 5.5 and as a result, got a zero.

Fig 5. 4: An example of unintelligible comprehension responses



From the above text the only recognisable English word was *The*, the rest was not even recognisable in Shona or Ndebele. The learner was randomly stringing together letters, maybe in an attempt to appear as busy as the rest of the class. What surprises is the fact that the learner was in Grade 3: how is it possible that no-one ever noticed that the learner needed remediation from Grade 1 to 3? I only discovered it when I had finished the data collection process so there could not be any further engagement with the teacher in order to get clarity on the learner's performance. More on the early identification of reading problems and remediation will be discussed in Chapter 6.

Generally, the learners' responses showed that comprehension tasks were a challenge. The strong relationship obtained between ORF and RC obtained in this study suggests that poor decoding skills hamper meaning construction, even at the concrete, literal level. As will be described in Chapter 6 which deals with the qualitative findings, the tendency of poor reading, failure to answer comprehension questions and the lack of explicit instruction (e.g. showing learners *where exactly in the text* answers to questions can be found) was noted even during lesson observations which might suggest instructional challenges.

5.3 Composition exercise book assessment

I present findings from an analysis of composition exercise books of a few learners from the subsample who participated in the ORF test (See Chapter 3). Only a subsample of the compositions that learners wrote in their exercise books was analysed. The exercise books showed the work which the learners were given and how they performed in the various pieces of work given to them. The compositions were incorporated in order to show what individual learners did in class since each learner wrote their own work, though at times the compositions were guided by use of a template. Reading and writing are interrelated and the nature of the writing might shed light on the relationship between reading and writing. The learners' individual work could also help explain some of the trends noted in the qualitative examination of responses to the RC assessment. As a result, samples of Grade 3 and 4 writing in composition exercise books were analysed to gain a broader understanding of how written literacy is developed in Zimbabwean schools. This was also meant to address RQ3g and more indirectly, RQ4.

3g How is writing developed to support reading literacy in the Grade 3 and 4 learners?

RQ4 What do the selected primary schools do to orientate children to reading literacy?

As already indicated in the methodology chapter (§3.5.3), a total of 72 composition exercise books was collected from 72 learners who did the ORF test in the study. The corpus of 72 exercise books was large so I decided to sample five compositions per learner: from each exercise book, the first two compositions, one in the middle and the last two were selected. In all, 45 compositions from each class were examined, which totalled 360 pieces of compositions from both grades. The combined Grade 3 corpus had a total of 13 219 words while the Grade 4 one had 10 662 words. I typed all the

compositions on Microsoft Word, corrected the spelling mistakes but did not correct the grammar so as to retain some degree of originality. I did that so as to be able to carry out the analyses (RE and vocabulary profiles). I then carried out separate readability analyses of all the sampled compositions per school per grade using the RE on the Microsoft Word platform (§4.2.1) to get a profile of the overall text features of the learners' compositions. This also enabled me to relate the RE results to the RC and ORF results.

I also carried out separate vocabulary profile analyses for the Grade 3 and 4 corpora, using the BNC-COCA option which analyses words into K1 -25 frequency levels. Additionally, I also used the Classic profiler to identify use of academic words (AWL). I also summarised the most common trends from the learners' work; common topics, language trends, errors and teachers' feedback. However, the analysis of these texts is not very detailed since my focus is not on learner writing per se; rather, the text analysis has been included to gain a broader understanding of what the learners do in class that reflects on the development of reading and academic literacy, bearing in mind that reading and writing develop in tandem. This written data thus provides complimentary evidence to the reading literacy assessment data.

5.3.1 Readability and vocabulary analyses of composition excerpts

The Zimbabwean syllabus for Grade 3 and 4 learners stipulates that from Grade 3 learners are expected to write compositions (§4.1.2). During interviews with teachers (Chapter 6) they disclosed that compositions are written once every week and the composition lesson is an hour long in all the schools. Most of the compositions in this study were one paragraph long and the most common topics included; *Myself, My friend, My school, My family*. The composition topics were similar across the two grades and were mainly descriptive. Most of the compositions had templates which learners had to follow while others were in the form of cloze activities, with missing words that learners had to fill in. Some of the templates were prepared by the teachers while others were taken from the textbooks. Table 5.9 shows the readability statistics for the compositions as a corpus. Both analyses generally showed that the texts displayed simple language and mainly high frequency words.

Table 5. 10: Readability statistics for learners' compositions by school and grade

School	A		B		C		D		Overall totals	
Grade	3	4	3	4	3	4	3	4	3	4
Words per sentence	6.3	8.5	6.8	7.9	6.1	8.4	6.6	6.8	6.4	8.4
Mean word length	3.7	4.0	3.7	4.0	3.9	3.8	3.8	3.7	3.8	3.9
Passives	0%	3%	0%	5%	0%	2%	3%	2%	1	2
Flesche RE	87.7	86.5	88.9	87.4	90.7	89.2	88.4	90	89.5	88.7
Flesche-Kincaid Gr level	2.5	3.3	2.5	3.0	2.1	2.9	2.5	2.7	2.3	2.9

Grade 3 RE results show that there is not much difference among the learners' written compositions across the schools and grades. The average words per sentence were six across the schools and the mean word length ranged from 3.7 to 3.9 which shows that the words were very short across the schools and grades. These commonalities could be a result of the use of similar templates across the schools in composition writing. The RE results also show that the language use was straightforward and simple. The RE and associated grade levels were also very low across the schools. No grade produced work on par with its grade level, the highest was 2.5 for Grade 3s. However, given that these are ESL writers/learners, perhaps they are not doing too badly.

Given that school D outperformed the other schools, one would have expected the composition results for school D to be better than the other schools but that was not the case at either grade level.

Similarly, the RE results in the Grade 4 compositions show fairly simple and straightforward language. The mean word length was almost the same across the four schools and the words were generally short. Surprisingly, schools A and B with the lowest reading scores had slightly higher overall grade indices (3.3 and 3.0 respectively) than Schools C and D (2.9 and 2.7 respectively). However, these differences are fairly small.

While the RE results show a slight developmental trend across the grades in the four schools, language growth seemed to be small, with no marked increases.

Table 5.10 below shows the vocabulary profiles of both grades' compositions. Grade 3 profiles are presented in green while Grade 4 profiles are in blue. Basically, the profiles show that the majority of the words belonged to the high frequency level, mostly at the K1 frequency level, which means the compositions contained mostly familiar words.

As to be expected, high frequency words provide the largest text coverage (95%). In all written texts the high frequency words contribute the highest text coverage which is why learners should know them and also be able to use them from the early years of schooling. Among the Grade 3 compositions some of the high frequency words were *family, trees, people bark, curtain, uniform* and for the Grade 4s the high frequency included *pupils, banana, playing, enjoy water, years*. There were also small contributions from the mid and low frequency levels to the 98% coverage across the grades; Grade 4 compositions reached the 98% coverage after adding K3 -6 words and Grade 4 after adding K3 and K4 words.

Table 5. 11: Vocabulary profiles for learners' compositions

Text features	Grade 3	Grade 4
Vocabulary profiles		
K1 <i>family, trees, morning, people, number, shop</i>	92.2	90.9
<i>year, playing, party, enjoy, water, play, ground, fire, wood, head, master</i>	95.8	96.6
K2 <i>Accident, active, altogether, bark, beef</i>		
<i>Admire, asleep, banana, block, cow</i>	96.5	97.5
K3 <i>Assembly, curtain, content, extension, uniform</i>		
<i>Celebrate, clinic, crop, domestic, pupil, net</i>	97.2	98.1
K4 <i>Ambulance, boarder, horn, goat, soccer, tuck</i>		
<i>Ash, bully, drown, obey, ambulance, tiger</i>	97.5	98.4
K5 <i>Butcher, calf, shorts, peach, pizza-Basketball, chalk, pea, pizza, shepherd</i>		
K6 <i>Eldest, hare, orchard, pastor, stout</i>	97.8	98.5
<i>Fluff, lily, orchard</i>		
K7 <i>Complexion, hostel, puncture</i>	98.3	98.6
<i>Complexion, wag</i>		
K8 <i>Barber, maize, mango, tyre, kennel</i>	98.5	98.8
<i>Cola, kennel, lorry, soot, maize</i>		
K9	98.6	98.9

Volleyball	98.7	-
Hoe, totem, volleyball		
K10	98.8	99.0
Baboon		
K11		
Coca	98.9	-
Coca, flax		
K12		
Moo, sprite-	98.9	-
-		-
K14		
Adventist	99.0	-
-		-
K17		
Aldrin, marimba	99.1	-
-		-
K20		
Kraal		
Offlist		
Nhodo, pada, sadza, mazoe,		
Covo, sadza,		
AWL		
Area, assemble, domestic, compute,		
fee, injure, intelligence, job, locate,		
relax, seek, uniform		
Enormous, injure, involve, area, job,		
vacate, assemble, transport, domestic-		

Very few mid frequency words occurred in both grades' compositions considering that the corpus for each grade comprised 13 219 and 10 662 words respectively. Most compositions from both grades did not have any words from the AWL, those that did, used fairly common academic words such as *grade, primary, injured*. This profile suggests that the learners' active vocabulary repertoire did not readily extend beyond the 2 000 most frequent words. Although words from the AWL do not contribute a high percentage to text coverage, their usage in scholarly texts starts in primary school. Chall and Jacobs (2003) state that Grades 3 to 4 mark the onset of academic literacy development and learners' written work should show some evidence of this but there was little evidence of this in these written corpora. Nation (2006) asserts that students who use academic words perform well while those who find the shift from conversational language (BICS) to an academic register challenging encounter more and more difficulties as they progress with their studies since CALP demands increase at each level. The primary school level is the basis for the development of academic literacy and this is also facilitated by reading varied texts.

From the BNC-COCA results there were offlist words for both grades which contributed a very small percentage of text coverage. Most of these were proper nouns

(examples: *Ropafadzo, Mvuma, Malawi*), indigenous words (*nhodo, mopane, sadza*) and compound words (*firewood, headmaster, playground, netball*). The proper nouns and indigenous words which appeared in the learners' compositions are very familiar names of people and places in Zimbabwe as well as ordinary nouns of objects and games played by young Zimbabwean children.

Overall the texts showed features typical of early grade language usage while the vocabulary profiles also showed that the learners' productive vocabulary repertoire had not really developed beyond the 2 000-frequency level.

The RE and vocabulary profile results might be the outcome of instructional practices in the schools. For example, the overuse of templates needs to be considered because their injudicious use could contribute negatively to learners' composition writing, maybe by denying them the chance to exercise their creative abilities and forcing them to stick to provided guidelines. Templates could be used for modelling purposes so learners have an idea of what a certain genre entails but not used whenever learners write compositions. Pedagogic issues will be revisited in Chapter 6 which presents data on lesson observations and interviews with the teachers.

5.3.2 Teachers' feedback in the composition exercise books

Giving learners feedback after marking their work is integral to continuous assessment, as it helps show learners how they performed and what is expected of them (Wen 2013). Feedback provides an opportunity for individualised feedback in each learner's book as well as group feedback when the teacher gives overall oral comments when the books are given back to class. When learners have been socialised into a culture where they get feedback from their teachers whenever they submit some written work, failure to provide feedback might disappoint learners, though this might not be the case where such a culture has not been developed (Hyland 2003).

I looked at how the teachers marked the compositions as well as the comments they wrote. Although the teachers did mark the learners' work, very few comments accompanied the marking. Most exercise books had ticks for correct work, while wrong spellings, grammar and punctuation among others were underlined just beneath the error with no correct forms provided. Only three teachers indicated in most of their learners' books the correct response they expected. The majority of the teachers just

indicated a mark and nothing more (no comment, signature or date). Wen (2013) points out that feedback helps learners take note of their mistakes as well as providing information for revision. It is part of the teaching and learning process and it can hinder or facilitate effective learning.

Those who wrote some comments did not make them very elaborate. Some of the comments intended for able learners were *Good, Very good, Excellent work, Well done*. On the other hand, learners whose work did not meet the teachers' standards received comments such as: *Write meaningful sentences, Confused*. The comments for poor performers were not particularly helpful except to demotivate them, for example: *There is nothing for me to mark here*. Generally, those who performed poorly did not have many comments save for the few that I have indicated, and most teachers did not include comments. In sum, it seemed as if cursory comments were given at each end of the performance spectrum, i.e. both for learners who did well and for those who performed poorly, but those in between, the average performers, did not receive any comments. Hyland and Hyland (2006) assert that feedback is some form of scaffolding provided by the teacher which enhances learning, so if the comments are vague or even non-existent, learners would be disadvantaged.

There was only one Grade 4 teacher (4C) who, despite not including a lot of comments, had a marking grid or rubric, with the following breakdown: *Content 5, Spelling 5, Grammar 5, Impression 5*, with a total of 20 marks. (4C had the highest ORF results among the Grade 4s though there was no significant difference between 4C and 4D). The use of a marking grid is a more helpful way of marking the compositions because learners would be advised on what area they had to improve, even though her marking grid was not generally accompanied by comments. However, the RE profile of the Grade 4C compositions was similar to that of the other Grade 4 classes so although the Grade 4C teacher used some good feedback practices it did not seem to readily translate into significant results in composition writing. When I informally talked to the teachers about the compositions they lamented the challenge of large classes and the concomitant high marking load, implying thereby that they did not include comments except for exceptional cases because it was too time consuming. However, from the interviews (to be further discussed in Chapter 6) it was noted that although most of the teachers talked about the importance of positive feedback and how it motivated the learners, there was a mismatch between what they said and their marking practices.

5.3.3 Excerpts from learners' compositions

The Grade 3 and 4 learners are supposed to write a composition every week. Learners were given the composition work during lesson time as class work and were expected to write the compositions in a one-hour long lesson. However, during the interviews it emerged that most teachers felt that a composition a week was too much, given the large class sizes, although most teachers tried to meet the requirement. Below are excerpts from the syllabus on the teaching of compositions:

Syllabus aim: To promote a reading and creative writing culture using English language.

Syllabus outcomes: By the end of the junior school level learners should be able to:

- *write accurately in English.*
- *write a variety of creative texts in English (MoPSE English Language Junior (Grade 3-7) Syllabus (2015-2022)).*

Some of the composition topics were suggested at the end of a teaching unit in the textbooks but teachers were free to come up with their own topics for their classes.

In Grade 3 learners can be given composition topics which were descriptive (people, places and objects). They can also write friendly letters. However, a look at the learners' work showed that the majority of topics were about describing people (*Myself, My friend, My teacher, My father, My school*) across the four schools. I also noted that the same topics occurred throughout the year because in some schools where I carried out my research during the third term they were still writing about those same topics. There was no letter writing or description of an object in the learners' books, except in one school (D) which wrote one composition about a favourite animal. Most of the compositions that I worked with were descriptive, nonfiction texts describing people or objects and yet many of the texts that are read in early school are narrative texts.

Most compositions were guided by teachers using questions to which learners were expected to provide the required information, in other words the set of questions served as the templates. For example, for a topic like *My school* the following questions were given: *What is the name of your school? Where is it found? Who is the Headmaster of your school? Who is the Deputy Headmaster? How many teachers are at your school? What is your teacher's name? How many children are at your school? How many*

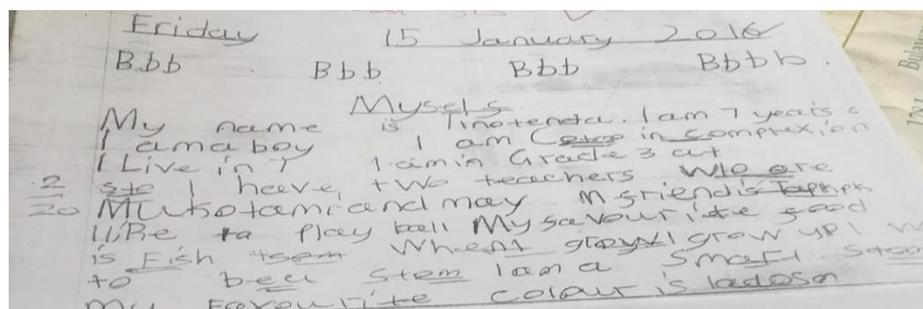
classrooms are at your school? Which sports do you do at your school? What do you like about your school? I did not come across any activities where the teacher provided guidelines for how to structure information in descriptive writing except for the questions provided. Other compositions were scripted templates which required learners to fill in the missing words. Below is an example of such a composition at Grade 3 level, the composition topic was *Going to my school*.

My school is in ...It is about ... kilometres from my ... I go to school every ... from Monday to ... I go there by/on ... I see other... on the way. My friend stays in ... He/she goes to school by/on ... Our teacher lives ... so he/she comes to school ... every day.

For Grade 3 compositions I noticed that the appropriate words were provided for most compositions, especially those written at the beginning of the year, but not for Grade 4s, they had to come up with the words on their own.

The learners' performance was generally poor, characterised by spelling mistakes, inaccurate grammar and immature handwriting among others. Below I include samples of a poorly done composition and a well written one from Grade 3, where learners were supposed to complete the provided sentences about the topic *Myself*. The two examples provided here belong to students from different schools; both were written during the first week of opening in January 2016. Fig 5.6 below is an example of a poorly written composition.

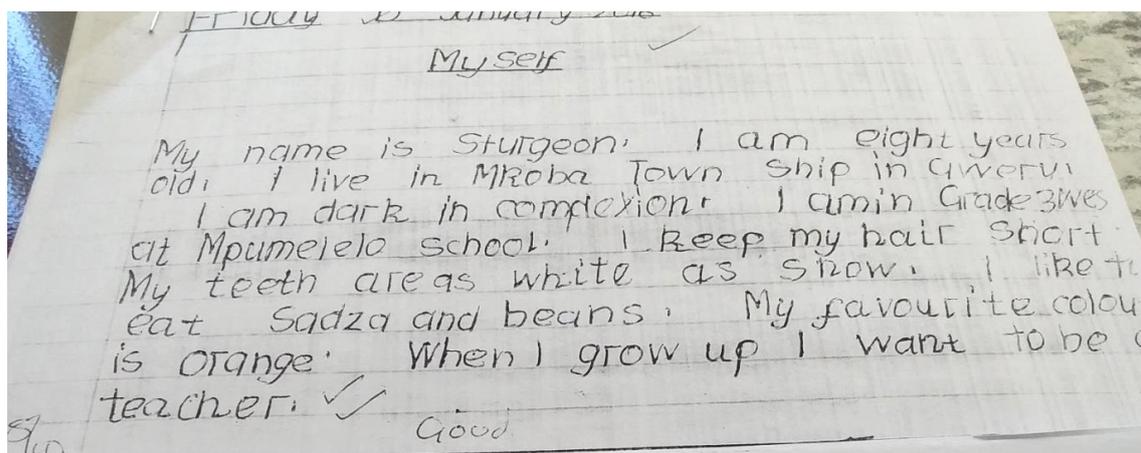
Fig 5. 5: An example of poor Grade 3 writing



Despite the fact that some of the compositions were guided, like the one in Fig 5.6, where a learner had to complete sentences with the appropriate words, some learners wrote unintelligible work which means they could not correctly copy what was on the chalkboard. A closer look at the above learner's reading performance shows zero (0%) for RC and 5wcpm for ORF, so this poor writer also seems to be a non-reader. Such

learners may have had decoding problems which makes understanding the requirements of the written instructions difficult. Generally, learners who displayed poor writing were also those with poor responses to the comprehension test they wrote, as highlighted earlier (§5.2). However, there were also a few good compositions, even at the beginning of the year when the Grade 3 learners started their writing compositions, as in the example below.

Fig 5. 6: An example of good Grade 3 writing



Here too the learner was supposed to fill in the missing words which he managed to do correctly and neatly. This learner had an ORF result of 61wcpm and a RC result of 55%. The results help to show the relationship that exists between reading and writing; the learners who fared poorly in writing also tended to be weak readers, while those who fared better in writing tended to have stronger reading scores.

From the notes the teacher showed me in relation to composition writing there was room for learners to add more details on their own but few did so; they stuck to what was given by their teachers. Maybe that was because of their level or because they were not sure of what they could add, which suggests that the learners probably lacked reading exposure and proper composition writing pedagogy which is vital for the development of good writing skills.

The Grade 4 stipulations on composition writing were a bit different from the Grade 3s. The syllabus advised that learners write formal and informal letters, guided compositions, free descriptive and creative writing – stories, poems, diaries and reports. The syllabus suggests a variety of topics, but the classroom reality was different, with the most common topics being descriptive ones (*Myself, My friend, My journey, the*

person I admire most, our garden, My school, My dog), similar to what occurred at Grade 3 level. In School D some of the compositions were more detailed and longer than what I saw in other schools, showing evidence of positive development in some learners. However, this did not show up in the RE outcomes, although the school had the best reading outcomes, with a RC mean of 56.2%. A few learners at this school also wrote incomprehensible work.

Fig 5. 7: An example of poor Grade 4 writing

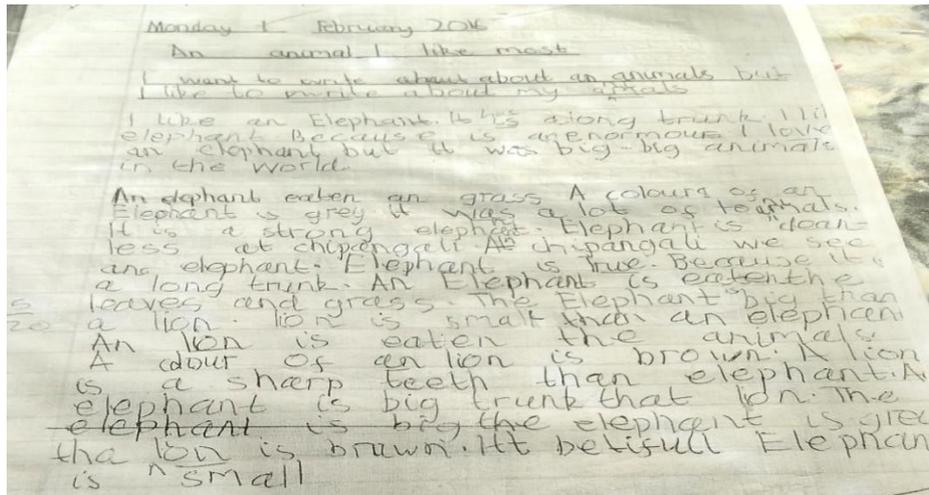
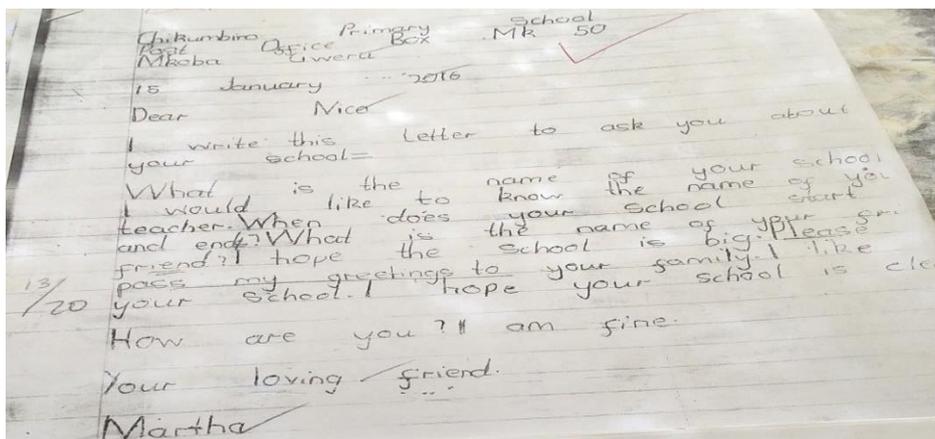


Fig 5. 8: An example of good Grade 4 writing



The errors found in the Grade 4 compositions were similar to the errors by Grade 3 learners, involving poor sentence construction, spelling, tenses, punctuation and capitalisation among others. Although learners were expected to write a composition each week, writing remained a challenge across the grades. Learners' work showed that they were still dependent on templates and the teachers' guidance by questions;

creativity was minimal. However, among the compositions were also a few good ones, especially at a technical level, but there was little by way of imaginative writing, as shown in the example above.

It was also noted that there was no rubric for any of the classes except one (4C) on the marking of learners' compositions. Like the Grade 3C teacher, the Grade 4C teacher also used a marking grid with four items (*Spelling, Grammar, Impression and Content*), each item had 5 points, since compositions are marked out of twenty. In all the books that I assessed save Grade 4C, a mark was given to each composition (for example, 10/20) which indicated the learner's score. However, in most exercise books only the score was given and nothing more, no correction of errors or comments. This lack of transparency in terms of what is expected for each writing task might also disadvantage the learners because it would not be very clear what the evaluation focused on or what the marking communicated.

5.4 Discussion of the reading literacy performance

The discussion in this section addresses research question 3 and its sub questions which concern how Grade 3 and 4 learners performed on reading literacy assessments and how their written work corroborates reading literacy development (§5.0).

The learners generally performed poorly in both the RC and ORF tests. The RC results were low while the ORF results showed that the learners' reading rate was generally slow. The RC results further showed that both the Grade 3 and 4 learners performed better in literal comprehension questions than the higher order questions, and a strong relationship was found between reading comprehension and ORF. Although there was a slight increase in RC from Grade 3 to 4 (from a mean of 40.7% to 45.9%), there was no concomitant increase in fluency from Grade 3 to 4 (from a mean of 71.2wcpm to 72.9wcpm). The analyses of learners' written texts also showed that their responses reflected features typical of lower grades than the target grades (Grade 3 and 4) which could be a result of poor reading skills and lack of exposure to reading a variety of texts.

ORF, RC and their relationship

The ORF results were generally low for both grades. The results are similar to what was found in Piper and Zuilkowski's (2015) study with Grade 2 Kenyan learners as well as Draper and Spaul's 2015 study with South African Grade 5 learners whose

ORF in English L2 was low. Using Broward County (2009) benchmarks⁴ developed in the USA for ESL learners, the Grade 3 learners in this study fall within the Limited English Speaker (A2) category. Using the 50th percentile within the A2 category the Grade 3 learners' wcpm were about three words below the highest band in that category (71.2 versus 74wcpm). The Grade 4 mean could also be equated to that of Grade 4 A2-Limited English speaker learners in the USA at the 50th percentile who read 73wcpm. Both grades fall within the same category but for different grades. This category is one of the lowest categories of ESL learners in the USA who qualify for remedial programmes to boost their reading abilities. Learners in this category demonstrate limited understanding and can communicate orally in English with one- or two-word responses. Since learners at this category have limited understanding it is obvious that even their comprehension skills will be compromised. Of importance to note is that these benchmarks were created for L2 learners in remedial programmes, which shows that the Grade 3 and 4 learners in this study read slightly slower than the ESL learners who had been identified for remedial classes. This also suggests that the learners in this study might have serious reading challenges since they are performing slightly below ESL learners in remedial programmes.

Learners at the A2 language level will have poorer reading skills and as a result their comprehension skills will be compromised. During lesson observations (to be discussed in the next chapter) I came across such learners who struggled to say a word when asked to respond after reading a comprehension passage and some who could not construct meaningful sentences during oral discussions in class. However, as the North American ESL reading research shows, learners with limited language skills can still achieve fairly strong decoding skills in the L2 (Lipka & Siegel 2007) though such a situation does not guarantee good RC performance. The SVR states that both language proficiency and decoding are necessary conditions for successful RC which means even with fairly strong decoding skills but without language proficiency RC will be a challenge. Normally lack of fluency in learners during their early years of schooling is a result of lack of familiarity with letter-sound relationships and inaccurate decoding of high frequency words in texts. Such learners have challenges comprehending texts

⁴ The report specifies five classifications: A1 – Non-English speaker, A2 – Limited English speaker, B1 – Intermediate English speaker, B2 – Intermediate English speaker and C1 – Advanced English speaker.

(Pikulski & Chard 2005) because more cognitive effort is expended on the lower level skills at the expense of higher order comprehension skills (Sparks & Patton 2016; Hogan, Adolf & Alonzo 2014; Perfetti et al. 2005) and this is what the SVR model emphasises. Based on the low ORF results, learners in this study could be struggling with letter-sound relationships and inaccurate decoding of familiar words, which in turn affect reading comprehension. Decoding and language proficiency work in tandem if one is compromised RC will be negatively affected and if learners lack both language and decoding skills, effective RC becomes virtually impossible (Pretorius & Spaul 2016; Hudson, Lane & Pullen 2005). Reading challenges should be identified during early stages of learning before learners get to Grade 4 after which it is difficult for learners with such challenges to effectively progress with learning.

A study by Al Otaiba et al. (2009) with Latino L2 learners in the USA from high poverty schools can also be used to help understand the ORF performance of the learners in this study. The Latino L2 learners' ORF scores ranged from 53wcpm for Grade 2s to 75wcpm for Grade 3s though the scores were lower for learners with language delays (44 and 64 respectively) and lowest for those with learning delays (24 and 35 respectively). The Grade 3 learners in this study read about four words below their typical Grade 3 Latino learners which suggests that these Zimbabwe Grade 3 learners were not performing too shabbily, especially considering that the Latino learners followed explicit and systematic reading programmes and the schools are also better resourced which is not the case in developing countries like Zimbabwe. On the other hand, the Grade 4 learners in this study showed a downward development as they read about two words below the Grade 3 Latino learners which is not good for reading literacy development and learning in general, especially at this transition stage of schooling. By Grade 4 learners should be reading better than Grade 3s and have attained reading proficiency which is essential for the transition to the intermediate level. Pretorius and Spaul (2016) assert that the greatest growth in ORF occurs between Grades 1-4 which means a downward trend in Grade 4 is not good. It is worrying to have struggling readers in Grade 4 because they will continue with their poor reading skills to higher grades which will affect their performance. Unless such learners get teachers who are knowledgeable about reading literacy instruction (which is highly unlikely in the African context) and willing to attend to the learners' needs they will continue with their challenges.

Even though the preceding comparison shows that the learners in my study were slow readers, compared to learners from other African contexts (South Africa and Kenya) they were much better. A study by Draper and Spaul (2013) showed that South African Grade 5 learners read less than 40wcpm while Piper & Zulkowski's 2015 study with Kenyan Grade 2 learners showed that they read 30wcpm in English L2. Studies on ESL reading show that a conducive learning environment where explicit and systematic reading programmes are carried out and resources are readily available for individual reading practice, ESL readers can acquire decoding and fluency levels that support RC. The Grade 3 and 4 learners' RC performance was low (40.7% and 45.9% respectively) compared to more acceptable levels of comprehension (where 60% might suggest a learner is no longer reading at a basic level but at a more intermediate stage of RC, although not yet an advanced comprehender). This is not surprising given the low ORF results for the same grades presented earlier and also the relationship that exists between ORF and RC. RC depends on the development and interactions of aspects of decoding and oral language comprehension together with other complex processes involved such as inferencing ability and working memory (Kim et al. 2016). They go on to assert that without appropriate development and coordination of these multiple processes RC cannot be achieved which could be the case with the learners in this study.

The SVR and the DTH (§2.3) both stress the role of decoding in reading comprehension. As discussed in section 2.3.1 the SVR posits that RC is a product of decoding and linguistic comprehension and both decoding and linguistic comprehension are necessary (albeit not sufficient) for reading comprehension (Gough & Tunmer 1986). This means reading challenges in learners could be a result of poor decoding skills or poor linguistic comprehension or both, because neither of the two is sufficient on its own. Evidence from this study certainly shows a strong link between RC performance and poor reading skills. The DTH further argues that the relationship between decoding and reading comprehension can only be reliably predicted beyond a certain minimum decoding threshold (Wang et al 2019). This means that learners need to achieve or exceed a minimum decoding threshold to be able to comprehend what they read otherwise text comprehension will be compromised. Pretorius and Spaul (2016) suggest 70 wcpm as a threshold for ESL learners as learners reading lower than that displayed serious comprehension problems. The learners in this study could be considered as just achieving this threshold, which might explain why their

comprehension results were low. Clearly more large-scale research on reading literacy thresholds and benchmarks is needed across the various backgrounds and contexts in middle- and low-income countries, and not depend on research carried out in high income learning context only. The majority of learners got low marks and a few got zeros for the easier aspects of text comprehension – the literal questions. This shows that the learners struggled even with the surface understanding of the text, which points to poor decoding skills which affect all levels of comprehension. Since many could not answer even literal questions their performance in the more challenging higher order questions was predictably even worse, given that higher order questions require more complex cognitive processes compared to literal questions. Comprehension is a combination of using information in the text and the knowledge in one’s head to make deeper connections (Kintsch 1998). Kintsch’s (1998) Construction-Integration (C-I) theory of reading comprehension (§2.4) assumes decoding skills when it refers to the role played by the text base (literal information from the text) in creating a situation model. Following the C-I model, it seems as if the learners had challenges at the construction stage where the text base is, which then made it difficult to integrate the information from the text with the situation model, derived from their background knowledge and experiences in order to form a mental representation of the text as a whole which is critical for text comprehension. Without the text base there is no situation model, and an inaccurate or erroneous text base compromises comprehension at high levels. The text base entails word recognition which is a part of decoding skills. Learners who cannot comprehend a text at its surface level as indicated by low performance in literal questions in this study might be having decoding challenges. During lesson observations I noticed learners who struggled to read certain words and paragraphs (§ Chapter 6) when asked to read to the class in both grades, pointing to poor decoding skills, which in turn affect RC. Snow (2010) asserts that poor comprehension can be a product of a breakdown in any of a wide variety of reader skills which include fluency, vocabulary, background knowledge and text memory among others. In this study the low ORF results confirm that learners with poor decoding skills find reading comprehension challenging.

Howie et al. (2016) assert that higher order comprehension skills are required throughout the learners’ schooling career and yet most learners struggle to apply them. Even the sampled written compositions did not show evidence of use of higher order

thinking skills or going beyond the teachers' guiding statements or templates. Even at a basic descriptive level learners were not adding any of their descriptive ideas to their writing. Although learners in principle had the latitude to add their own ideas during composition writing, the majority of compositions mirrored the teacher's template which suggests that learners had not yet mastered how to use their higher order cognitive processes and creativity. Maybe that could also highlight a lack of individuality and creativity nurturing among learners by the teachers.

The poor reading skills in general discussed in this section could also point to instructional shortcomings which are typical in African contexts and other developing countries (Kim, Lee, & Zuilkowski 2019; Pretorius & Spaul 2016; Draper & Spaul 2015). Both decoding and RC seem to suffer from lack of proper instruction and as a result, learners still exhibited challenges with basic decoding skills even at Grade 3 and 4 level yet these should be properly developed in Grade 1 and 2 to avoid a developmental lag. More on pedagogic issues will be discussed in Chapter 6.

The strong correlations between ORF and RC in this study (.78 for Grade 3s and .85 for Grade 4) confirm findings from other ESL reading research (Piper and Zuilkowski's 2015 study with Grade 2 Kenyan students had a correlation of .64; Draper and Spaul's 2015 study with Grade 5 South African students recorded .83; Pey, Min, & Wah's 2014 study with Korean students recorded a correlation of .82). There are many other studies which have shown strong correlations between ORF and RC in L1 and ESL reading (e.g. Pretorius & Spaul 2016; Klaudia and Guthrie 2008; Spear-Swerling 2006; Ambruster, Lehr & Osborn 2001; Fuchs, Fuchs, Hosp and Jenkins 2001). Of concern to note is that unless these basic reading skills are acquired during the early years of schooling, failing learners will continue falling behind (Kim, Lee, & Zuilkowski 2019; Snow & Mathews 2016; Pretorius & Spaul 2016; Ding, Richardson & Schnell 2013). This suggests that if these Grade 3 and 4 learners receive no effective intervention, meaningful learning in all areas is sure to be compromised since reading comprehension cuts across all subject areas. Thus, reading fluency cannot be overemphasised in reading comprehension among learners.

The effect of gender within grades on reading literacy performance

The results on gender differences in this study were mixed. Significant differences were found between Grade 3 girls and boys for RC and ORF but not between the Grade 4

girls and boys. There are a number of studies which attest to gender differences in literacy performance; Cekiso's (2016) study with South African Grade 3 learners showed girls outperforming boys in reading comprehension. Howie et al. (2016) found significant gender differences in Grade 4 PIRLS Literacy within the South African context, with girls outperforming boys. SACMEQ II also reported gender differences in some countries but not in all (Saito 2004). Grade 6 girls in Seychelles, Botswana, South Africa and Mauritius outperformed the boys but in Tanzania boys scored significantly higher than girls while in other countries there were no differences (Kenya, Mozambique and Zanzibar). Unfortunately, Zimbabwe did not participate in the 2004 study. Zimbabwe participated in SACMEQ III in 2007 and was among the countries (Botswana, South Africa, and Mauritius) where girls performed significantly better than boys, while in Tanzania boys outperformed girls, and in other countries the differences were insignificant. Generally, girls outperform boys. This is attributed to a number of factors which include the fact that girls tend to engage themselves more in reading than boys (Cekiso 2016; Sainsbury & Schagen 2004). It has also been noted that girls have more positive attitudes towards reading than boys (Logan & Johnston 2009).

The effect of age in reading literacy performance

Age could be a potential barrier as well as an advantage in the learning process because of its connection to cognitive development (Hungu, Ngware & Abuya 2014). However, learners above their grade age could be learners who would have failed and had been detained and who might thus have reading or learning difficulties. Indeed, in this study, older learners in a grade (i.e. those a year or older than their grade age) performed considerably worse than their peers across the two grades. Grade age learners and those slightly younger than grade age performed better on ORF and RC than learners a year or more above their grade age. This study's findings are slightly different from those of Hungu et al. (2014) who worked with Grade 6 Kenyan students whose grade age is 12. They found that the younger groups (10/11) outperformed the grade age learners (12years) and older learners. Even Liswaniso's 2021 study with Namibian Grade 5 learners also showed that the youngest (than appropriate grade age) age group outperformed the older (than appropriate grade age) learners in both ORF and RC. It is likely that the older than grade age learners could be learners with learning/reading disabilities, some might even have been retained in a certain grade for a year. Simply

having struggling learners repeat a grade does not improve their performance. Learners who are older than their grade age need targeted specialised interventions otherwise they continue falling behind.

The effect of school variables on reading literacy performance

The four schools in this study had mixed performance. There was no significant difference among schools for ORF performance but there was significant difference in RC performance. School D outperformed the other three schools in RC performance across the two grades. As stated in Chapter 3, School D was located in the CBD where the fees were higher and most parents were middle class, the school was better resourced compared to the other schools and the teachers were more experienced compared to other schools. There are numerous studies which attest to the fact that disadvantaged backgrounds negatively impact on the development of reading literacy (Dublin Department of Education and Skills 2011; Abadzi 2011; Pretorius 2010; Strickland & Riley-Ayes 2006). Maybe the low performance in some of the schools could be attributed to the fact that resources were scarce and also that they operated in areas where most learners came from low socioeconomic backgrounds. However, Pretorius (2010) argues that SES does not necessarily determine performance and if schools serving poor communities create conducive learning environments, learners can achieve high reading levels.

5.5 Conclusion

This chapter presented the quantitative findings for the four schools in this study. I also interpreted the results in relation to the third research question of my study and found that generally the Grade 3 and 4 learners from the four schools which participated in the study performed poorly in both ORF and RC assessments. The results also showed strong positive correlations between ORF and RC across both grades confirming other scholars' findings that skilled decoders generally perform better in reading comprehension than less skilled decoders. The chapter also included a section on learners' compositions whose analysis confirmed the findings from the reading assessment tests that learners' performance was generally poor showing that reading and writing are closely related.

Chapter 6: Reflections on classroom practices derived from lesson observations and interview data

6.0 Introduction

This chapter presents the second part of my qualitative data analysis based on transcriptions of the lesson observations (Data set 4) and interviews (Data set 5) that I carried out in the eight classes in this study. The data analysis in this section specifically focuses on reading and writing activities that facilitate reading literacy development. The chapter addresses research questions 4 and 5.

RQ4 What do the selected primary schools do to orientate children to reading literacy?

4a How do classroom resources support reading literacy development in the selected schools?

4b How do teachers carry out reading comprehension lessons in selected schools?

4c How do teachers and principals perceive the role of reading literacy in the learning process?

RQ5 What socioeconomic and classroom related challenges do Zimbabwean Grade 3 and 4 teachers and learners face during the early development of reading literacy in the targeted schools?

I first explain the methodological aspect of the qualitative data analysis. I then describe and analyse the classrooms and lessons observed school-by-school, starting with Grade 3 then Grade 4 and include quantitative statistics at the end for each school as corroborative evidence. There are also evaluative comments at the end of the section on lesson observations. I then move on to the analysis of the interview data. At the end of the chapter I present a discussion of all the findings from observations and interviews in a thematic approach.

6.1 Qualitative data collection and analysis

The data presented in this section was acquired through observations and interviews. I started collecting data from the schools in July 2016 and completed the whole process in October of the same year. To recap, I carried out lesson observations with four Grade 3 classes and four Grade 4 classes in Gweru urban. Interviews were held with the eight teachers who taught the classes whose lessons I had observed and with the four principals in charge of the four schools.

For this part of my study I adopted the stages used in the content analysis approach. Drisko and Maschi (2016) define content analysis as research techniques which make it possible to draw systematic, credible and replicable inferences from the texts or data sources available. There is scholarly consensus that the process of qualitative data analysis follows a number of stages, which might be named differently but the underlying procedures are the same (Brink 2016; Creswell 2014; Braun & Clarke 2013; Harding 2013; Bryman 2012). There were seven stages in my analysis.

The first stage is that of immersion (O’Conor & Gibson 2003) or data familiarisation. At this stage the researcher immerses him/herself in the data so as to familiarise with it at a deeper level in order to enable the transcription stage. For this study I took time watching the video recordings and reading through the interview data before I sat down to transcribe the data. All my interview data were recorded on paper because the teachers did not like the idea of being recorded.

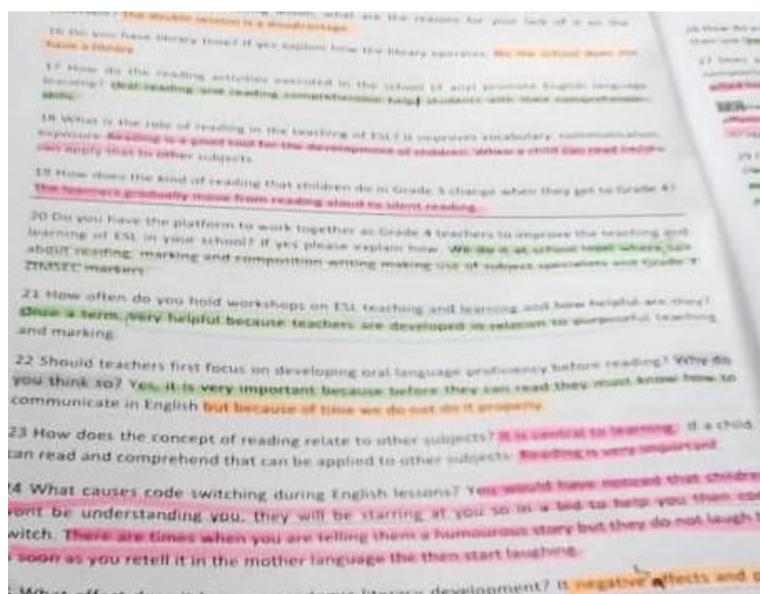
The second stage was the transcription stage where I transcribed all the data from observations, while the interview data were typed so that I could have print copies for the analysis process (See Appendix C). I had video recordings of reading lessons and copies of observation checklists from the eight classes that I observed and I took time to watch each video lesson several times, writing down what was taking place from the beginning to the end.

The third stage comprised the organising stage. This is the stage where I placed the transcribed data in specially labelled files according to the data source: Data set 4 for lesson observations and classroom observations and Data set 5 for interview data. (Data set 1 was the syllabus document and extracts from textbooks, dealt with in Chapter 4, Data set 2 composition exercise books and Data set 3 Assessment tests in Chapter 5).

The original interview copies and classroom audit checklists were safely packed in an envelope and videos were saved on my laptop.

The fourth stage entailed the **analysis of the transcribed data, an iterative process which goes through several levels of analysis as the researcher keeps going back to the data in search of the hidden meanings (Bryman 2012).** First, I read the transcribed data and highlighted issues that emerged from the raw data. For example, I read through the interview transcriptions using the interview questions as my guiding principle. As I did so I highlighted the issues that seemed to stand out, using different colour pens. In some cases, I underlined, encircled or used zig-zag lines to differentiate between the identified issues. I did that for all the data and quite a number of issues were identified. Figure 6.1 below shows how I highlighted the arising issues in each response to interview questions.

Fig 6. 1: The highlighting stage of analysis

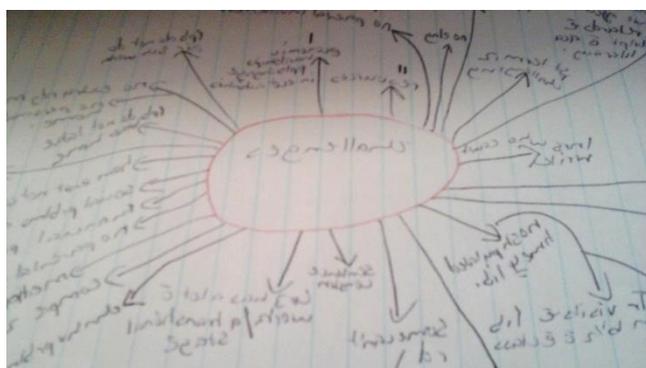


The fifth stage involved a more detailed coding stage of the analysis where, after going through the highlighted issues in the previous stage, I then semantically grouped related issues. At this stage I brought together semantically related issues and wrote a descriptive code suitable for that particular issue on a separate paper. Examples of codes that I came up with included: *challenges*, *resources* and *teaching methodology*. At this stage I was just assigning broad descriptive labels to the emerging issues, making it easier for me to identify similar issues across the different data sets. From that activity

I identified about 16 different descriptive codes from both sets of interviews. In line with the recursive nature of qualitative data analysis, I also went through the transcripts several times to make sure that I had not overlooked any issues or coded them inconsistently (Bennette, Barrett & Helmich 2019; Ngulube 2018; Saldana 2009).

The sixth stage was the categorisation stage. Here I carried out a further iteration where I was now trying to be specific and elaborate, singling out the issues under specific but related categories. For example, under challenges I listed the different kinds of challenges such as *pedagogic*, *resources*, *school management* or *financial factors* inter alia. I made spider diagrams where I wrote each category on paper drew a circle around it and using arrows indicated all the related issues. I did the same for all the codes that I identified across the data sets. In the process I noticed that there were some issues which fell under more than one category, so I included them under all the categories where they seemed relevant, to help me later in the process. For example, textbooks fell under pedagogic, print resources, challenges and SES factors. Figure 6.2 below shows how I presented the emerging issues from interview data.

Fig 6. 2: Categorisation of emerging issues



I then went on to categorise the challenges into *pedagogic* challenges, *enrolment* and *infrastructural* challenges. I did that for all the identified categories.

The seventh and final stage was the thematic one. Here I identified themes from the different categories outlined earlier. In this process some of the categories were merged, for example *reading teaching methodology* and *Ministry guidelines*, because they were interrelated and I renamed the theme *Pedagogical issues to do with reading lesson preparation and delivery*. In the end I came up with four main themes accompanied by a number of subthemes each as shown below. The main themes are:

- Pedagogical issues to do with reading comprehension lesson preparation and delivery.
- Pedagogical issues regarding reading instruction.
- Challenges which teachers and principals said they encountered in the teaching and learning of reading literacy.
- Teachers' and principals' perceived solutions to the challenges encountered in the teaching and learning of reading literacy.

6.2 Classroom audits and lesson observations

My observations were two pronged: I had a classroom audit checklist (See Appendix C) which I used to identify print related items in each classroom and I also carried out lesson observations. I used the checklists to check on the availability of furniture, reading material, cupboards and the general ambiance of the classroom. I completed eight checklists for the eight classes that I observed. The information from the checklists was used to provide background information for each lesson observation described in this section.

For lesson observations I videotaped eight different lessons; four Grade 3 classes and four Grade 4 classes. The data from the classroom observations have been presented as follows. Firstly, each of the lessons have been reconstructed from the videos and classroom checklists, using the structure of general description of classroom and teacher, comments about the print richness of the classrooms, followed by a description of the lesson itself, divided into introduction, body and conclusion. These divisions did not occur physically in the lessons but were inferred from shifts in lesson focus and activities. The outcomes of the classroom audits are not presented separately but merged into the description of the classroom observations. These descriptions are intended to give the reader a sense of what was happening in each classroom. Quantitative results for each school are also included, to show how the qualitative and quantitative lenses together throw light on classroom outcomes, as reflected in learner performance. Evaluative comments are made at the end of all the lesson observation descriptions to draw the main threads together since most of the issues were similar across all the eight classes.

In this section I also briefly re-present information about the schools that I worked with (§3.5.2). Three of the four schools are under the jurisdiction of the government while one falls under the city local authority (City Council). Three schools are situated in high density suburbs⁵ while one school is in the CBD. All the four schools have teachers who tally with the number of classes and three administrative staff members (school principal, deputy principal and teacher-in-charge) and two ECD teachers. Table 6.1 below shows data pertaining to the schools in the study.

Table 6. 1: School information

School	Location	Responsible authority	Staff compliment	No. of Gr 3 classes (learners)	No. of Grade 4 classes (learners)
School A	High density suburb	Government	33	4 (186)	4 (176)
School B	High density suburb	Government	33	4 (180)	4 (185)
School C	High density suburb	City Council	33	4 (206)	4 (202)
School D	CBD	Government	25	3 (150)	3 (153)

School D is the only one in the city centre; the other three are situated in high density residential areas where very poor as well as more well-to-do people reside. School D is the only school with three classes per grade while the rest have four.

Table 6.2 (on the next page) provides a summary of the teachers' and principals' biographical data. The teachers are referred to as TA3, for Grade 3 teacher at School A and TA4 for the Grade 4 teacher in the same school and the same happens for School B, C and D while the principals are labelled HA1-D4 (H for principal of school, A1 for School A).

The majority of teachers were female; there was only one male teacher. Most of them had minimum qualifications, i.e. either a Certificate in Education (3-year qualification)

⁵ During the colonial era Zimbabwean suburbs were categorised as low and high density suburbs according to the population in a particular suburb. Low density suburbs were less populated and that is where the white people and a few rich black people lived while the high density suburbs had large numbers of black people most of whom were poor. The situation has since changed, though the population remains high in the high density suburbs.

or a Diploma in Education (3-year qualification) required to practise in Zimbabwean primary schools. During the preindependence era teachers who trained in teachers' colleges were awarded what was called a Certificate in Education which was upgraded to a Diploma in Education after independence. Only two teachers (TD3 and TC4) had education degrees, one of whom had a Master's degree.

The principals' ages ranged between 45 and 63 which suggests that promotion to that rank is for people with experience in the teaching field. Three of the four principals had a Master's degree which suggests that they were more highly qualified. The number of years in the office of the head also indicated a wealth of experience on the part of principals, especially for the two who had 19 and 17 years of experience. The reading performance at their schools (Schools C and D respectively) was also better than the other two schools (as shown in Chapter 5). This tentatively supports the view that experience in managing school affairs affects learner achievement (Hungu, Makuwa, Ross, Saito, Dolato, van Cappelle, Paviot & Vellein 2011), just as SES factors affect learner achievement (Howie et al. 2015; Tse & Xiao 2014; Ngorosho 2011).

Table 6. 2 Teachers' and principals' biographical data

Teacher	Gender	Age	Qualification	School	Grade taught	Years teaching Gr 3 or 4
TA3	F	36	Diploma in Education (DipEd)	A	3	5
TB3	F	50	Certificate in Education (CE)	B	3	2
TC3	F	56	Dip.Ed.	C	3	6
TD3	F	62	CE, Bachelor of Education (B. Ed.)	D	3	12
TA4	F	47	DipEd	A	4	9
TB4	F	50	CE	B	4	8
TC4	F	36	Dip. Ed, B. Ed., Master of Education (M. Ed.)	C	4	2
TD4	M	60	CE	D	4	4
HA1	F	58	CE, B. Ed.	A		10 (as principal)
HB2	M	45	Dip. Ed., B. Ed., M. Ed.	B		8 (as principal)
HC3	M	63	CE, B. Ed., M. Ed	C		19 (as principal)
HD4	M	61	CE, B. Ed., M. Ed	D		17 (as principal)

6.2.1 Visit to School A

School A was visited on 26 September 2016 and both Grade 3 and 4 classes were observed on the same day. It is a school in a high-density suburb and was headed by a female who was 58 years old, with ten years' experience as head. The classroom blocks were neatly arranged and there were some flower beds in the school yard, suggesting an attempt to make the campus look attractive. Generally, the whole school was clean. No learners were seen loitering aimlessly around the school, even though there were classes under some trees since there was hot seating in the school due to a shortage of infrastructure and furniture. Some classes came in the morning and other classes came in the afternoon. At the time of my visit the Grade 3 learners came in the morning while the Grade 4s came in the afternoon. Both teachers were expecting me since I had made prior appointments with them. I was told that it was a Ministry requirement that every class has a Science corner and as a result the Science corner is a common feature in Zimbabwean primary school classes, whether they are used during lessons or not.

6.2.1.1 Grade 3A

This class was taught by a 36-year-old female teacher who had been in the school for five years, teaching Grade 3s. The class had 46 pupils. The teacher's table was by the door in front of the class and was neatly arranged. There was a lockable cupboard for both textbooks and exercise books, which was also neatly stacked and labelled according to subjects. Pupils' work was displayed (tests, compositions, drawings) according to subjects.

The classroom was clean and most of the pupils were in uniform though there were some in incomplete and old uniforms. The pupils sat in five groups of 8-10 according to ability and the best students (groups 1 and 2) were at the front in line with the teacher's table and the last group (Group 5) was adjacent to the teacher's table, most probably for assistance and close monitoring. The teacher said Group 5 was the teacher's group and had some non-readers in it. The groups were not labelled but pupils knew their groups. The desks were arranged in such a way that all the learners turned their heads sideways to look at the board. The learners' bags were on the floor

The teacher exhibited good classroom management skills and her English proficiency was fair, though she code switched a number of times during the lesson. During the

observation I sat by the teacher's table where I could see the whole class. Figure 6.3 shows some of the learners during the lesson observation.

Fig 6. 3: Grade 3A learners



On the whole, the classroom was fairly print rich. The classroom had a lot of new self-made charts displayed on one wall (for Grade 3) which were beautifully decorated and colourful and were displayed according to subjects (English, Shona, Maths, etc), of which only a few were laminated. Some charts hung from the ceiling. The English charts displayed general grammatical information about tenses, opposites, prepositions, and so on. There were a lot of pictures from magazines. The Grade 4 charts were displayed on the opposite wall (the classroom was shared).

The chalkboard was neatly fixed to the wall by the door and was in good condition. It was put to good use but because of hot seating the teacher wrote up all the requisite work for the day during the lesson since the classroom and resources were shared between two classes.

There was a Science corner with a few items such as an old television, clock, telephone, tray and an old electric iron. There was a shop corner as well which had a few items: empty cereal boxes bottles, tins and shells. However, during the observed lesson there was no reference to these corners and charts, possibly because there was no shared point of interest between them.

The classroom had a lockable door and no broken windows. The classroom seemed structurally sound and was also spacious, even though there were 46 learners, they were not cramped.

Part A: The Lesson introduction

After the introductions the lesson began. The topic for the RC passage was on working as a community and the lesson was one hour long, as is expected of reading

comprehension lessons in Zimbabwean primary schools. The teacher started by asking the group leaders to issue out textbooks. She did not tell the class what they were going to do during that lesson. On the chalkboard was written *Working together* (Unit 28), a title to a story in the Grade 3 English textbook (See Appendix C). She then asked one pupil to read the heading on the chalkboard. The teacher then re-read the title and the rest of the class repeated it after her. Some were not even looking at the chalkboard though they were shouting together with the rest of the class. From the chorusing I could also hear some pupils mispronouncing the /o/ sound (in the word *working* [ou] instead of [ɜ]). The teacher seemed to pick up the error because she repeated the word *working* as a way of correcting the pupils, but because she did not explicitly draw their attention to the mispronunciation and its correction, the simple repetition of the word might not have helped the learners much. The teacher went on to ask the pupils what the heading meant and one of the pupils said it meant *helping each other* and the teacher acknowledged the pupil's response as correct.

She then took out ten flashcards (e.g. *across, country, groundnuts, millet, bridge*) and told the class that those were some of the words they were going to meet in the story and also stressed that they were doing that exercise so that they could pronounce the words correctly and also understand their meanings. All the flashcards were placed on the chalkboard where everyone could see them. One by one pupils were asked to read a word each, which the class chorused loudly after, but here too some of the pupils were not looking at the words when saying them, and others were not even participating. After reading a word the teacher asked for its meaning, emphasising that the reason why she did that was she wanted them to understand the words. Most of the words were read properly but pupils struggled with explaining their meanings. In a bid to explain what *millet* was one pupil used the L1 Shona word *zviyo*, but the teacher discouraged her from using Shona in an English lesson, even though she herself kept using the mother tongue to explain certain concepts. At one point the teacher also struggled to properly explain one of the words *peanuts* and explained it as: *Peanuts, you can mix them with eh (silence) in fact peanuts at first, they are groundnuts*. They were also required to make sentences using the new words but there were pupils who found this activity challenging. Using the word *across* one pupil said *I across the bridge*. The teacher then asked someone else who responded correctly and the teacher explained the meaning afterwards. Generally, the class struggled with the meanings of the words on

the cards and the teacher also highlighted that challenge in the interview. This aspect of the lesson was oral; the pupils did not have any vocabulary notebooks for recording these words and to which they could later refer on their own in order to familiarise themselves with the spellings, pronunciation and meanings of the words. Also, no reference to these words was made at the end of the lesson. There was no prior discussion of the topic of the text, which suggests that there was no activation of background knowledge, a vital aspect of comprehension instruction.

Part B: The body of the lesson

The text was a narrative text on how wild animals worked together to construct a bridge to enable crossing to either side of the river which separated two villages. It was 220 words long. The pupils were asked to open their textbooks on the passage of the day (*Working together*) and they shared the books in pairs and threes, which indicated that textbooks were scarce, a fact which was highlighted in the interviews by both teachers and the school head. There were some pupils in the last group who fought over the textbook and the teacher reprimanded them and told them to share the book. Some of the books were torn and uncovered and only a few were in good condition. The teacher said they were supposed to read and understand the passage, but nothing more was explained about the reading activity.

The teacher first modelled how to read it for the pupils and read the whole passage since it was short. After that she instructed the pupils to read silently on their own in order to understand the passage. There was no discussion of the text. Quite a number raised their hands so that they could read aloud for the class, suggesting that they had not understood the instruction or maybe they wanted to impress the visitor. The teacher repeated the instruction and asked them to start reading and the whole class read aloud at once. She told them that they had to read silently and the voices were lowered but they could be heard subvocalising. Some read while pointing at words with their fingers while others did not read at all, especially the last group. The teacher moved around. When they were done she asked them to summarise the story, though she had not told them before reading that they would summarise the story after reading, nor did she help them identify main ideas in the text as a basis for summarising it. The teacher did not explain what she expected of them as they summarised the story, so most of them did it in one sentence, unable to give a comprehensive summary of the story. Most of the

pupils were shy to speak up so the teacher kept urging them to respond. They may have lacked confidence in English and were aware of it. There was one boy who participated outstandingly. The teacher code switched most of the time, giving explanations as well as maintaining order in the class in Shona.

The pupils were then given group work to answer comprehension questions. The questions were written on work cards. Learners were supposed to write the answers on pieces of paper and then orally present them to the class. They made a noise as they came closer together to work as groups since they were seated in groups of eight or more. Group 5 took such a long time to settle down that the teacher had to come to their rescue. They were the first group to be asked to report their work but they took their time to make their presentation, maybe because they were not sure of their answers. In the end they failed to provide correct answers and they were asked to observe how the others presented. The teacher tried valiantly to make the learners participate more on their own by asking other groups to assist their peers when they did not give a correct answer, without giving the answer herself. The teacher then turned to Group 1 which did very well.

The class used an unusual way of applauding those who did well: when the teacher said, *Showers*, the class raised their hands towards the group making movements with their fingers and when the teacher said, *Thunder* the class clapped only once. Those who failed at some questions received a few showers and no thunder at all. That was an interesting way of making the lesson lively and also supposedly to motivate the learners to try and provide correct answers. Group 3 could not answer their questions, they repeated whole chunks of information from the text without adapting it to answer the question and Group 1 was asked to assist them. One pupil could not read the word *how*, she said *who* and was asked to read properly. Most pupils could not correctly pronounce the word *women* they kept on saying *wumeni*. Group 5 later got everything correct and they were given many showers and double thunder but they did not seem to enjoy it, maybe because they were aware that Group 1 had done much of the work on their behalf.

Part C: The lesson conclusion

In the last fifteen minutes the teacher concluded the lesson when the class was given individual work which they had to write in their exercise books in the remaining

minutes before the lesson ended. She stressed that when answering questions, the pupils should write complete sentences. The teacher went on to tell the class that comprehension exercises were easy because the answers were provided in the text, but she did not demonstrate this nor did she explain strategies that they could apply during comprehension activities.

I briefly talked to the teacher about the lesson and she lamented the class's lack of understanding when a comprehension passage was read. She said that was their main challenge, which was worsened by a shortage of reading material, which she said also negatively impacted their vocabulary development. She seemed unaware of methods to explicitly *teach* RC to learners and seemed to rely instead on simply getting pupils to *do* RC in class.

6.2.1.2 Grade 4A

I visited the Grade 4 class on 26 September 2016, the same day I visited the Grade 3 class in this school but the Grade 4 lesson was in the afternoon, taken by a 47-year-old female teacher. The teacher had taught for 9 years in the school but this was her first year of teaching Grade 4. She had previously been teaching upper primary school (Grade 6 and 7). There were 43 pupils in the class. The observation was carried out in the afternoon due to double sessioning in the school. The teacher had a good command of English and code switched a few times only, mainly for class management. The learners in this class were well disciplined.

The classroom was different from the one used by the Grade 3 class. It was very smart, spacious and well ventilated, and the furniture was neatly arranged. However, the classroom was not painted inside, it had red bricks. The pupils' desks were arranged in such a way that they sat in groups of about eight to ten pupils; Group 1 (the best students) sat closest to the teacher while the last group, Group 5, sat at the back, contrary to the seating arrangement in the Grade 3 class. The teacher indicated that the slow learners were at the back so that she could assist them without disturbing the whole class, she also said her eyes were always on that group.

Fig 6. 4: Grade 4A



The teacher's table was at the front by the door. The teacher's files were neatly covered and arranged on the table. The chalkboard displayed the day's work and the teacher made good use of it, though the work was only written when the

class entered the classroom because they shared it with a Grade 3 class.

Unlike most hot seating classrooms, this one was fairly print rich, with a lot of charts on the walls, most of which were new. As in the Grade 3A class, there were separate walls for the Grade 3 and 4 charts and the charts were displayed according to subjects. The English charts had information on tenses, opposites, pronouns and some incomplete sentences which were to be completed using appropriate words. Along the top of the walls close to the ceiling (where they could not be properly seen) were letters of the alphabet accompanied by pictures and numbers from zero to nine in digits.

The teacher indicated that they normally prepared their charts at the beginning of the year and not specifically for individual lessons, a general practice across the schools. There were a lot of pictures from magazines. Pupils' work was also displayed according to subjects. There was also a lockable cupboard where textbooks and exercise books were kept. The shelves were clearly labelled.

There was also a small Science corner by the door. It had a few items which included flowers, an electric bulb, and electric gadgets like a toaster, iron, kettle, radio, sand, x-rays and a few other items. There was also a shop corner which had empty cereal boxes, lotion containers and empty bottles among others.

Part A: The lesson introduction

The reading lesson was one hour long, typical of reading comprehension lessons in Zimbabwean primary schools. It was about elephants and the text was an information text.

There were eight words (*elephant, trumpet, weight, tonnes, naught, waterhole, squirts*) on the chalkboard which related to the text. The lesson started with the teacher asking different pupils to read one of the words aloud. After a pupil read the word aloud then the rest of the class read it aloud together. They participated enthusiastically and most of the pupils who were called upon to read the words did so quite well. Those who could not read the words properly were assisted by their peers. They went on to make sentences using the same words to show that they understood their meanings. Again, that was well done. The class clapped hands for those who did well. One pupil said, *My weight is 160cm*. The teacher went on to explain the difference between *height* and *weight*. She gave them the following instruction, *When you go home measure your weight on the scale and tell me the weight tomorrow*. That was an attempt to connect what they had learnt to the children's lives though not many homes were likely to have scales especially considering that most children were from low SES backgrounds.

Part B: The body of the lesson

After the oral prereading activities, textbooks were handed out to the class by class monitors and the pupils shared the textbooks in pairs and threes. The class then read an information text entitled, *The elephant* (See Appendix C) from their English textbook. There was no discussion of the text title. The text was 130 words and the teacher modelled reading for the class first, and then asked them to take turns to read a paragraph each (following the round robin method). The teacher corrected readers whenever they failed to properly pronounce words. For example, one reader failed to pronounce the word *squirts* and the teacher corrected her and asked the whole class to read the word together aloud. Another reader read fluently even though she was pointing at the words. The teacher communicated in English throughout and the pupils also did the same. There were a few who could not read properly from those picked to read to the class, though on the surface everything looked good.

The story was read aloud three times in succession, maybe to help learners understand the story. However, the teacher did not explicitly tell the learners the purpose of reading the text three times and there was no discussion of the text. After reading they orally

answered comprehension questions which were on the chalkboard. During this oral comprehension exercise some pupils responded to the questions by reading whole chunks of text without selecting only that which answered the question and use it to construct their own answer. However, the teacher did not use that opportunity to show them how to select only relevant information. Instead, she indirectly signalled an incorrect answer by asking someone else to give the correct answer.

The pupils were then given group work after the oral exercise and the questions were on work cards, to which they were supposed to write down the answers to present orally to the class later. The group work was done according to the prevailing group seating arrangement in the class. Some groups worked well while others were not properly engaged and the teacher said *Muri kuitei?* (*What are you doing?*) which helped them to get settled and concentrate. The teacher only code switched twice as a way of managing the class. Group 5 was the first to present and they struggled to read both the questions and the answers. Group 2 had problems with sentence construction, just like the Grade 3s. For example, one of their questions was *Which word in the story means the same as a small lake?* And their answer read, *The word in the story which means as the small lake is waterhole.* Maybe the omission of *the same* in their answer was a mistake but when asked to correct the sentence the group could not. If the teacher had provided more specific feedback on what was wrong (e.g. *Yes, your answer is right but you have left something out in your sentence. Read it again aloud and try to find what little words you have left out*) they might have been able to edit their answer correctly. The teacher asked the others to assist Group 2 and one of them correctly constructed the answer. The teacher then asked the group to correct their answer on the paper where they had written the wrong answer and then read it to the class. The teacher was trying to give her students an opportunity to work by themselves without relying on the teacher. Group 1 did extremely well; they constructed good sentences and gave correct responses. The group work and presentations took about 20 minutes.

Part C: The lesson conclusion

In the last 15 minutes of the lesson, the teacher asked the class to summarise the story. One pupil said, *We are reading about a African elephant* (instead of ... *an African elephant*). He was corrected (grammar) by other learners so he could put it in the past tense, which suggested that the class was paying attention. Pupils from Group 1

participated more than the other groups. Surprisingly at the end of the lesson the teacher illustrated how tall an elephant was using a metre ruler and the pupils showed their amazement, though it would have been more appropriate if she had done that during the lesson introduction so learners could have a rough idea of how big the elephant was before reading the text. The lesson ended unexpectedly as the head came in, asking all the pupils to go to the assembly point to be addressed by the police. This was one of the unplanned eventualities that I encountered during my data collection process in schools. The teacher told me that that was the end of the lesson and after the address the class was going to have a lesson on a different content subject.

6.2.1.3 Linking class performance with classroom practice at School A

Table 6.3 shows the descriptive statistics for the ORF and RC performance of Grade 3A and 4A in relation to their overall grade means. RC shows raw scores out of 20. (Lit stands for all the literal questions while HO stands for the composite higher order questions in the test.).

Fig 6. 5: Descriptive statistics for Grade 3A and 4A ORF and RC tests

	ORF	RC	Lit	HO
Overall Gr 3 mean	71.5	8.14	5.29	2.84
Overall Gr 3A mean	76.9	6.74	4.97	2.32
Grade 3A Percentile means				
25	67.5	4.0		
50	77.0	7.5		
75	102.5	9.0		
Overall Gr 4 mean	72.94	9.17	6.13	3.09
Gr 4A mean	63.9	7.84	5.31	2.53
Grade 4A Percentile means				
25	26.5	4.0		
50	67	7.0		
75	97	11.5		

In this school the Grade 3 learners were faster (76.9) than the Grade 4 learners (63.9), with a slightly higher ORF mean than the overall Grade 3 mean, while the Grade 4A ORF mean was considerably lower than the overall Grade 3 and 4 means. Even the performance of Grade 4 learners at the 75th percentile for ORF shows that Grade 3A learners were more fluent compared to their Grade 4A peers. There were some very

slow readers in Grade 4A, especially at the 25th percentile. Reading at 26wcpm in Grade 4 flags a serious decoding problem for this group of children - one which should be picked up in earlier grades.

The poor ORF performance for both grades was echoed by the formal RC assessment. Their average RC scores show that they performed poorly and also below the overall RC grade means. Slower readers performed more poorly on RC than the more fluent ones across the two grades. As expected, both grades performed better in literal questions compared to HO questions and, the Grade 4A learners' performance in literal questions was better than 3A. The HO questions were equally challenging for both grades. Overall, the poor results mirrored the poor performance observed during the lesson observations.

6.2.2 Visit to School B

I visited School B on 6 October 2016. It was also a school in a high-density suburb but in one of the oldest suburbs in the township, serving low SE communities, and the school had quite a number of orphans and child headed families. It was headed by a 45-year-old male who had a Master of Education Degree and eight years practising as principal. The school also practises hot seating like School A. All the classrooms had storerooms where textbooks and exercise books were kept under lock and key but there was no library facility in the school. There were beautiful flower beds in the school and the teaching and learning blocks were neatly arranged. Because of hot seating there were a number of classes under trees within the school yard.

6.2.2.1 Grade 3B

A 50-year-old female teacher was in charge of this class and had been in the school for two years teaching Grade 3 pupils. There was a total of 44 pupils in the class. Despite her years of teaching experience, the teacher's English was not good, she struggled to speak fluently and code switched a lot. On that particular day the class was taking the afternoon session. They shared the classroom with a Grade 4 class.

The classroom was small, crowded and not very tidy. Besides the furniture being old, it was not adequate for the learners as they were crowded on the few desks available. Despite being old and somewhat shabby, there were no broken pieces of furniture, the roof was intact and the doors were safely secured to the walls. There was a lockable

storeroom attached to the classroom with shelves along the wall where both textbooks and exercise books were neatly arranged according to subjects for the two classes.

Learners sat in six groups of eight to ten pupils per group. The groups were not labelled but pupils knew their groups. The teacher's table was at the back which was where the struggling pupils sat. Pupils' books which had been submitted for marking were piled on the teacher's table but it was rather disordered. There were disturbances by learners from another class who kept coming in to access the storeroom in the classroom. At school A I did not witness such disturbances, which might show that it could be a management issue.

There were a number of beautifully decorated charts on the walls, though some were loosely hanging from the wall. The charts were displayed according to subjects. No pupils' work was displayed on the walls. Like School A they shared their classroom with a Grade 4 class so on one side were Grade 4 charts.

The class had a white board and a blackboard but the teachers only wrote their work on the boards once they were in class because of the hot seating. The textbook ratio was 1:2 and 1:3 but most of the textbooks were uncovered and torn. There was a very small Science corner with a few items; some empty tins, a horn, a wire toy car, shells some bricks and sand. There was also a shop corner which had empty cereal boxes, bottles of body creams and toilet disinfectants.

The teacher conducted much of the lesson in Shona which suggests that her English proficiency was questionable. She code switched from the beginning to the end of the lesson. She also could not maintain order in the class because learners were moving around and making a noise though she kept on asking them to settle down. During the lesson observation I sat by the window in front of the class where I could see the whole class.

Fig 6. 6: Grade 3B



Part A: The Lesson introduction.

After greetings and introductions, the teacher asked the group leaders to issue out textbooks. There was nothing written on the chalkboard about the comprehension lesson. The

teacher did not know the exact page to work on so after trying to find it she asked the student teacher who was assigned to her class for the page number. She used Shona from the beginning of the lesson and during the interview she pointed out that she used L1 because pupils did not understand English. There were a lot of disturbances with pupils moving around the classroom and talking to their classmates. The teacher tried to get them to settle down but it took a while.

The pupils took their time to open the textbooks. The passage heading was *Collecting eggs* in Unit 26 of their Grade 3 English textbook (See Appendix C) and the text was 207 words long. The teacher read the title of the story and went on to reiterate the previous lesson, she said *Yesterday I talked about seasons and it is similar to what we are going to read today* yet the link between the two lessons was not obvious. She asked general questions on crops and how they grow and the pupils participated. Their prior discussion did not include anything on eggs or chickens but was on growing crops. For example: *Where do we grow crops? What season do we grow crops?* She also explicitly related the issue to other subjects, in this case their previous Agriculture lesson on how crops grow, to show the learners the relationship of their English lesson to other subjects.

Part B: The body of the Lesson

The teacher then asked the pupils to take turns to read. There was no modelling by the teacher. Again, round robin reading was done but with only three pupils. The pupils were generally poor readers; they were not fluent and could not read aloud. As a result, the teacher kept asking them to read loudly. Some pupils did not follow the text as they

were distracted by another class which came into the classroom to leave their books and other items because their session was over. The teacher asked the other class not to disturb them but it did not help much. Some children still used their fingers to follow the text and several pupils subvocalised while following the reading of the text. After each reader had read a paragraph the teacher retold the paragraph and, in most cases, used the L1. Even though she used the L1 a lot, few pupils participated in this lesson.

They only read the text once which could not have been enough for them to understand it, considering that the pupils were not fluent. There was no explanation of new vocabulary, neither was there a list of new words for the class to work on and nothing on comprehension strategies. After reading, the teacher asked pupils to work on questions from the textbook which required *True/ False* responses. That was an oral activity for the whole class. She started by explaining the two words in the mother language, *True ichokwadi (true means something is correct); false inhema (something not true)*. However, that was in October, the third term of the year and I think that by then learners should have been familiar with such a question format. She asked the pupils to look for responses from the passage and in a bid to look for answers the whole class read together loudly. The pupils did not give correct responses so she kept on telling them to go back to the story, saying, *Dzokera kustory*. Only a few pupils participated, despite the teacher using the mother tongue and even encouraging them to answer in Shona as well. Questions which needed reasoning and explaining posed challenges to them, for example *What are the differences and similarities between the growing of a chick and the growing of a plant?* Here she tried to connect the day's lesson to their previous Agriculture lesson on the growth of plants. She then orally drew a comparison between how plants grow and how chicks grow in the eggs, using both English and L1. The pupils also could not construct good sentences, for example, *What colour is the spot that grows into a chick?* One answered, *The black spot ...* but she got stuck there and could not continue. Another one said, *The colour that grows ...* but failed to proceed. The teacher told them that the sentence was not correctly constructed and looked for someone who could correctly respond to the question. She also corrected them for wrong pronunciation of words. The pupils had problems with meanings of words, for example *tiny*. Their performance in the comprehension questions left a lot to be desired, some could not even complete a simple sentence let

alone properly construct one. This part of the lesson took more than 30 minutes because of the disturbances and the poor participation of the pupils.

Part C: The lesson conclusion

In the remaining ten minutes, the teacher asked them to write individual RC work which she wrote on the chalkboard. After instructing them to write the given work she went on to talk about their previous work. She pointed out that they had not done well in the previous exercise which she had marked and she gave them the corrections for the previous work by going through the questions one by one. She asked them to write their corrections first.

Those who were writing the day's work could be heard sounding out words as they worked on their individual work as they read from the board and also from the textbooks. One pupil did not write because he did not have an exercise book and the teacher reprimanded him.

6.2.2.2 Grade 4B

The Grade 4 class at School B was taught by a 40-year-old female teacher who had been in the school for eight years, though that was her first year of teaching Grade 4 pupils. The class had 37 pupils, probably the smallest class of all the classes that I observed. The class was on afternoon session so their lessons for that day started at 11h00 outside the classroom but the English reading lesson was done when they had moved into the classroom. The teacher's English proficiency was good as evidenced by how she spoke throughout the lesson, though she code switched to make a follow up to a question that she had asked in English. The class worked very well with their teacher which was the direct opposite of what I had seen in the Grade 3 class.

The classroom was very tidy, in sharp contrast to the Grade 3 class, and the desks were arranged in groups which could accommodate six to eight pupils each. The first group which comprised able learners was close to the teacher while the last group was in the centre row close to the chalkboard. The classroom was well ventilated. The teacher's table was by the window in front of the class and it was well laid out. The teacher's files were neatly arranged on the table and also up-to-date. The chalkboard was clean and the teacher made effective use of it. Fig 6. 5 shows part of the Grade 4B class.

Fig 6. 7: Grade 4B



There was a storeroom attached to the classroom which had clearly labelled shelves for both textbooks and exercise books. The textbooks in the storeroom were new and neatly arranged on their respective shelves. There was a small library corner in the

classroom with a few library books which was personally built by the teacher. That showed her resourcefulness even though there were no more than 20 books in the class library. In the interview the teacher revealed that she was in the process of building a library for her class to help them develop a sense of reading. There were also very few charts on the walls and only one laminated chart; the charts were in good condition. Pupils' work was displayed, which included exercises and art work though not displayed under headings. Unlike the Grade 3 class there was neither a Science corner nor a shop corner in that class.

Part A: The lesson introduction

The lesson started after the introductions and greetings, somewhat differently from what I had observed in other classes, where the teacher asked the group leaders to issue out textbooks and to open on Unit 24; *Hen catches a meal* (See Appendix C), a text that was 247 words long. It was a narrative text on how Hen ate Grasshopper by tricking her. The teacher then asked her class to take out their vocabulary notebooks. That was the only class where vocabulary notebooks were actually used and the notebooks had a number of topics and words written from previous topics which showed that they were used during the reading lessons. Unusually, each pupil had his or her own textbook and the books were new and all covered. She instructed them to read the day's passage silently while at the same time jotting down new words, which I observed them doing. That task took about 15 minutes. That gave the learners the opportunity to identify unfamiliar words on their own, a form of autonomous learning, and it was the only lesson where learners themselves were asked to identify unfamiliar words. However,

there was no immediate follow up to that particular exercise, as she only asked about the words later after learners read the text. Most pupils read silently without moving their lips, though there were some who subvocalised and pointed at the words with fingers or pens.

Part B: The body of the lesson

After about 15 minutes she then asked them to take turns to read the passage in a round robin manner, but there was no reference to the new words identified in the introduction. Eight pupils read a paragraph each and the teacher alternated between boys and girls. Although there was no modelling by the teacher, the selected pupils read fairly fluently. The teacher corrected them as they read and at times they self-corrected. The teacher encouraged them to read loudly. The rest of the class followed silently though some could be heard subvocalising. During the second round of round robin reading the teacher stressed that they were supposed to read fluently. One boy read the word *worms* as *whemhisi* but he was corrected and the teacher pointed out that they were supposed to pronounce words properly. Although the pupils who read were generally fluent, most of them lacked prosody but the teacher did not comment on that. After the second round of reading the class entered an oral question-and-answer session, with the teacher asking questions based on what they read. There were pupils who could not use verb tenses correctly, for example where one had to use the past tense of *read* they failed to do it, though they generally answered most of the questions correctly. The teacher asked for the new words that they had come up with which included *pecked*, *beyond* and *scratched*. One pupil could not pronounce the word *scratched* correctly and the teacher assisted. The teacher went on to ask the class for the meanings of the provided words and pupils responded. The teacher code switched in the process; *Asi hamusat maona huku? (Haven't you seen a hen before?)*.

She then gave each group a work card which had a word from the passage. She asked the pupils to read the words (*scratched*, *beak*, *pecking*, *twig*, *pecking*) and then identify where they appeared in the passage. After one of the group members read the word, they then read where it was used in the passage. From the learners' new words two were also on the teacher's work cards which showed that the teacher managed to identify some of the words which learners confirmed they did not know. The activity was an oral one and learners managed to do the task and explain the meanings of those words.

In order to enhance understanding the teacher and her class talked about hens and how they feed them at home. There was a lot of code switching by learners during that short ‘discussion.’ Though the teacher referred to it as a discussion it was mainly teacher talk, similar to what was observed in other classes. One boy gave an answer in Shona and the teacher emphasised the use of English. After the new words the teacher orally introduced new phrases on work cards and asked the meanings of the phrases (*no food inside her stomach, sat on a twig, he flew down, beyond her reach*). She asked them to start by locating where the phrases appeared in the passage. The same pupils who had previously responded in Shona did it again and the teacher said, *You are doing it again, you should speak in English*. Just after that the teacher herself then code switched saying, *Handiti? (Is that so?)*, as if to confirm an important point.

Generally, pupils participated well during the reading activity though pronunciation was a challenge, for example one pupil said, *bhiyhondi* instead of *beyond*. The few who participated in giving the meanings of phrases showed an understanding of the passage. Another pupil went on to give an answer in Shona and the others disapproved because the teacher had just referred to it. The teacher related the topic to other subjects, specifically mentioning where they had come across the same issue in their previous lessons.

Even though the teacher had not shown them how to identify main ideas, the class was asked to summarise the story but the task was not performed well. Some pupils struggled with sentence construction, while others quoted sentences from the passage verbatim without any effort to construct their own sentences. Some did not actually answer the questions but just read the section of the passage that had the answer and sat down. The teacher asked simple as well as higher order questions. She also asked the moral of the story but the pupils did not give satisfactory answers for example, *We learn that the grasshopper was eaten by the hen*. However, the teacher did not tell the class the moral of the story even though she had asked them and their attempts to answer were dismissed as incorrect, so the learners were left in suspense. The body of the lesson took about 30 minutes.

Part C: The lesson conclusion

In the remaining ten or so minutes the teacher then asked the class to write their own questions in groups on pieces of paper without copying from the textbook and they

managed to come up with fair questions which showed understanding of the story. Most of the questions were *who* and *why* questions. *Who ate Grasshopper? Who felt hungry? Why did Hen lie?* The use of tenses was a problem for many for example, *What did Hen eaten? Who was felt hungry?* One group asked the questions they had come up with and pupils from other groups managed to provide correct answers. No other class had such an activity, which was a way of assessing learner comprehension of the story. The teacher went on to write RC questions for individual work on the chalkboard regardless of the fact that each one had a textbook. The work was done in class during the remaining minutes of the lesson. The pupils worked quietly on their own. As they were writing the day's work, she also reminded them to work on the corrections for the previous work before new work, which suggests that the way they revisited previous failed work was not beneficial to the struggling learners because not much was said or done about that.

6.2.2.3 Linking class performance with classroom practice at School B

Table 6.4 shows the learners' performance in School B in the ORF and RC tests.

Table 6. 3: Descriptive statistics for Grade 3B and 4B ORF and RC tests

	ORF	RC	Lit	HO
Overall Gr 3 mean	71.3	8.14	5.3	2.84
Gr 3B mean	63.9	7.84	4.27	2.15
Grade 3B Percentile means				
25 th	47	4.0		
50 th	50	7.0		
75 th	75	11.5		
Overall Gr 4 mean	72.94	9.2	6.13	3.1
Gr 4B mean	67.44	6.21	4.3	2.2
Grade 4B Percentile means				
25 th	42	4.0		
50 th	74	6.0		
75 th	91	9.0		

The Grade 3B ORF mean indicates that the class was generally slow, even slower than the overall grade mean, while the RC mean also shows that learners performed poorly, confirming what was observed during the lesson observation. Despite the pleasing classroom appearance and the generally positive participation in the Grade 4B lesson observed, the results for Grade 4B were not much different from their Grade 3 peers; they read more slowly than their grade mean and their RC mean was also below the overall grade mean.

As in School A, there were Grade 4B learners at the 25th percentile who read particularly slowly, slower even than their Grade 3B peers. The two grades' RC performance was poor, both performing below their grade means. The Grade 4B learners' RC performance was below the Gr 3Bs at the 50th and 75th percentiles though they were a year older. The two grades' performance even in the literal questions was lower than their grade means on these easier questions. The poor oral reading performance reflected in the poor RC performance for both schools across the two grades, supporting the SVR claim that RC relies on good decoding skills.

6.2.3 Visit to School C

The school was one of the more modern schools in Gweru's high-density suburbs. It serves middle class families and is situated in a fairly new suburb though it falls within the largest high-density suburb of the city. It is well known for its good Grade 7 results. The school was one of the schools which did not have hot seating. It was headed by a 63-year-old male who held a Master of Education Degree with 19 years' experience as a principal which gave him a lot of experience in administration. He had been in the school for the past 12 years.

The school had a library which individual class teachers and their classes visited on designated days even though there was no librarian. The school blocks which still look new were painted in grey and cream and there were lots of well-maintained flower beds, an orchard and a vegetable garden within the school yard.

6.2.3.1 Grade 3C

Fig 6. 8: Grade 3C



The Grade 3 class was conducted by a 56-year-old female teacher who had been in the school for 13 years, of which six years were spent teaching Grade 3 classes. The teacher had a Diploma in Education and had a good command of English. It was a large class of 50 pupils. The classroom was very clean, well ventilated and spacious. The teacher's table was at the back and was covered with a lace

tablecloth. The teacher's files and other records were up-to-date, covered and neatly arranged on the table. She managed her class very well. The teacher carried out the lesson in English and only code switched once. No pupils moved around or talked unnecessarily. For my lesson observation I sat at the teacher's table at the back and I could see the whole class from that angle.

The desks were arranged in six groups with an average of 6-8 pupils per group. Group six sat close to the teacher while the first group sat far away from the teacher's table by the door. To face the chalkboard some learners had to turn their heads while others sat directly facing the chalkboard. The furniture in the classroom was in good condition and pupils' bags were on a rail that ran round the classroom (see picture). Most of the children were in proper school uniforms.

There were neatly decorated charts displayed right round the classroom and some were bound around the margins. The charts covered a lot of subjects and were presented in different shapes, colours and sizes although they were not laminated. From informal conversations with the teacher I gathered that the charts were displayed throughout the year; the appearance of some charts showed that they had been on display for a while. The pupils' work was also displayed under subject headings which were clearly labelled. However, the charts on the English section did not have much information;

they displayed tenses, opposites and sentences to be completed with appropriate words just like what I had observed in other schools. The charts were self-made.

Part A: The lesson introduction

The teacher started by instructing pupils to close the books they were working on, sit up straight and to look at her. She had written the title of the text on the chalkboard *Hunting and trapping* which she asked the class to read together aloud and to tell the class what they thought of when they saw the word *hunting* on the chalkboard. They were silent for a moment and later started participating; they talked about tools used when hunting which was by implication activation of background knowledge. Then the teacher said, *Today we are going to read on hunting*. She had six flashcards which she used for the new words extracted from the passage. The flashcards were big enough that even those at the back could see the words clearly. First one pupil read a word and then the class read it aloud. Most pupils participated very well but there were some who upon being called to read could not do so. Again, nothing was said about the meanings of the words on the flashcards besides reading them aloud; the purpose of that activity was not clear; it was seemingly intended to aid word recognition and correct pronunciation rather than build vocabulary. That exercise took about 5 minutes.

Part B: The body of the lesson

The teacher asked three pupils to give out textbooks and although most pupils were given a textbook each, there were a few who shared in twos and all the books were in good condition. The teacher told her class that they were going to read about *Hunting and trapping*. It was a narrative text which had 214 words and had pictures of a forest. She modelled reading quite well by reading the first paragraph only and then said to her class, *I want you to listen very carefully because you are going to answer comprehension questions*. That helped to give learners the purpose of reading though she did not give them details on what exactly the questions would be focusing on before they engaged in reading. The reading activity was in the form of a round robin, just like other classes. (I encountered the same text in Grade 3D but that was not unusual since the core textbooks for each grade are the same). As the teacher read some pupils followed in their textbooks while a few did not look at the textbooks but listened to the teacher. Later the pupils were then asked to take turns to read and seven pupils took turns to read the passage. The teacher made sure that there was one reader from each

group and the pupils read one paragraph each. One pupil from Group 3 could not properly pronounce the Shona words (names of people and trees) which appeared in the text and that group had generally slow readers. Some readers from Group 4 could not read with expression, and some pointed with their fingers while reading. One reader from Group 5 read with expression though she had difficulties with the pronunciation of certain words. A pupil from Group 6 read fairly well though he struggled with words like *answered*. The teacher assisted pupils who struggled.

After reading once the teacher asked what they had understood from the passage and they responded properly, constructing good sentences. Group 1 and 2 participated with vigour but no-one from Groups 3-6 participated during the oral activity; it seemed that the teacher concentrated on the groups who responded, which disadvantaged the other groups. This was a trend in most oral lessons that I observed. After a second round of round robin reading the learners were asked to make sentences using some of the new words from the text which were captured on flashcards, but they just selected/quoted sentences from the passage where the words appeared and gave that as their response, suggesting that they did not understand the words fully because they avoided constructing their own sentences. The teacher did not discourage this kind of response even though it involved copying from the text without exerting much thought. That part of the lesson took about 30 minutes.

Part C: The lesson conclusion

The teacher then asked for a moral from the passage and two pupils managed to draw lessons from the text which showed their understanding of the text. *I learnt that hunting in the forest is dangerous. I learnt that we get meat from hunting* (which does not seem to be the main idea). That marked the end of the lesson and no individual written work was given. The conclusion was done in the last 20 minutes of the lesson and the lesson ended when there was still about seven minutes left.

6.2.3.2 Grade 4C

The Grade 4C class at School C was taught by a 36-year-old female teacher, a holder of a Master of Education degree. The teacher had been in the school for two years and had previously also taught Grade 4 pupils for two years. Her English proficiency was good. The learners were well disciplined and orderly throughout the lesson. The teacher's table was at the back by the window. The teacher's files were neatly covered

and laid out on the table. The classroom was spacious and had adequate furniture. The classroom was well swept and the pupils' desks were arranged according to groups, ranging from six to nine individuals per group. The groups were clearly labelled 1-6; this was the only class which had explicit group labels. Group 1 was made up of the most gifted learners while Group 6 had slow learners who sat close to the teacher. The teacher conducted her lesson in English though she did code switch just to make a comment.

There was a rail at the back of the classroom where all learners hung their bags, as in the Grade 3 class (Fig 6.8 Grade 4C). The chalkboard was clean and the day's work was written up and the teacher made good use of the chalkboard. Since there was no hot seating in this school, all work for the day was on the chalkboard.

There were charts right round the classroom on various subject topics and displayed according to subjects. The charts were in various shapes, colours and sizes while a few were laminated. Most of them were new. There was a storeroom inside the classroom which had neatly labelled shelves for both exercise books and textbooks. Pupils' work was displayed according to subjects.

Fig 6. 9: Grade 4C Science corner



The teacher was very resourceful as could be seen from the Science corner. There was a tree branch which was labelled using indigenous tree names, *mutondo*, *mushuku*, *musasa*, and on one of the branches was hung a bow and arrow and on the other a jacket and a cap. There was a model of a toilet, a rain gauge, a compass and some plants in plastic containers. There was a skull of a cow and a bird's nest. There were traditional utensils like clay pots and a winnowing tray. The Science corner was surrounded by neatly wrapped bricks. The whole display was impressive.

Part A: The lesson introduction

The teacher started by telling the learners a story in Shona which was meant to encourage them to pay attention during the lesson, using L1 initially to catch their attention. The story was about a learner who was not paying attention in class and how the learner's parents came to know about it and how disappointed they were. She then switched to English and asked group leaders to issue out textbooks while on the chalkboard she wrote *Game Park* and drew a square around it (the start of a semantic map) by way of introducing the lesson topic.

Fig 6. 10: Grade 4C



She then asked the pupils what they thought of when they saw the phrase *Game Park*. The pupils came up with a lot of ideas and the teacher also added on to the pupils' explanations by writing on the chalkboard. Most pupils actively participated in this activity, which might have contributed to their later apparent understanding of the comprehension passage which was

about a visit to a game park. The activity took about ten minutes.

Part B: The body of the lesson

She told her class that she was not going to read for them on that particular day which I assumed meant she usually modelled reading for them. The class monitors were asked to give out the textbooks. The class was asked to read the passage titled *A visit to the park* (See Appendix H) from their English textbook. It was a narrative text with 237 words. The pupils shared the textbooks in pairs and they seemed to be engaged in the activity. She picked only one pupil to read the whole passage while others listened. She may have picked the best reader in order to impress me. There were a few who followed the text using their fingers and rulers. The selected pupil read very well and with expression. After that the teacher asked the class what they had read, which was not on the semantic map. She gave the first answer by way of illustration and picked two other

pupils to do the same; they did well which suggested that they had understood the passage. She went on to ask the class to read silently as individuals in order to be able to answer RC questions and they exercised a high level of discipline during that part of the lesson, everyone was busy. No-one made a sound and the teacher was also busy with her own work. The pupils exhibited good reading habits; they did not move their lips though a few were using rulers and fingers to read.

The teacher then talked about how to answer comprehension questions, explaining that there were some simple questions but others which needed reasoning and application (higher order), and she gave relevant examples. She did it in such a way that pupils could identify a simple or higher order question. She also explained the following action words: *list, give, state*. This was the first time in these schools that I observed an explicit approach to teaching aspects of reading comprehension so that learners knew what was expected of them and how to do it. She gave them work cards which had questions that they were supposed to answer in groups as an oral activity and she emphasised that they look for answers from the passage. However, she did not ask them to identify the question types and each group was given a different set of questions. They engaged well with the task and the teacher monitored the class, moving between the groups. She started with the last group which did well, they had simple questions maybe that was the teacher's way of making sure that they feel part of the whole class and could manage the task. The teacher immediately corrected anyone who made errors but could not self-correct. All groups did very well, though there were some who struggled with pronunciation. The teacher also encouraged them to construct complete sentences. Once the lesson started there was no code switching. She also asked the group members to provide the meanings of words she thought were challenging. Her vocabulary teaching was unique; she would cite one word from the passage and then went on to bring a lot of related words in her explanation, for example giving antonyms and synonyms. She taught comprehension in a different way from the other teachers in that there was some explicit teaching, and it seemed from my observations that most of the class understood the passage. The class never chorused the responses; there was good discipline and order in the class which provided a conducive environment for learning. Most pupils in this class communicated fluently, although I did not see or hear anything about vocabulary notebooks. The body of the lesson took about 40 minutes.

Part C: The lesson conclusion

The teacher concluded the lesson by emphasising the different types of comprehension questions and gave the class individual work by way of a written comprehension task from the textbook. In the remaining few minutes they worked quietly on their own, reading the questions from the textbooks and answering in their individual exercise books. That was the most interesting of all the lessons that I observed.

6.2.3.2 Linking class performance with classroom practice at School C

Below are the descriptive statistics for Grade 3C and 4C learners from School C for ORF and RC performance.

Table 6. 4: Descriptive statistics for Grade 3C and 4C ORF and RC tests

	ORF	RC	Lit	HO
Overall Gr 3 mean	71.25	8.14	5.29	2.84
Gr 3C mean	61.11	7.25	5.78	2.15
Grade 3C Percentile means				
25 th	32	3.0		
50 th	61	8.0		
75 th	84	11.0		
Overall Gr 4 mean	72.94	9.17	6.13	3.09
Gr 4C mean	80.33	10.0	6.86	3.3
Grade 4C Percentile means				
25 th	56	6.0		
50 th	81	11.0		
75 th	91	14.0		

The Grade 3C ORF results show that they were slow readers who on average read below their grade mean, slower than the previous Grade 3 classes described. Though the 75th percentile mean was higher than the overall grade mean, they were still relatively slow. The performance of weak learners at the 25th percentile was extremely low and even the RC performance at that level was also correspondingly low, showing vulnerable readers. Among the three schools discussed so far 3C had the weakest performers at the 25th percentile for both ORF and RC. On the other hand, the Grade 4C learners' ORF mean was higher than the overall Grade 4 mean even though those at the 75th percentile were relatively slow readers for their grade (according to the Broward County results they fall under B1, Intermediate English speaker Broward County2012).

The Grade 4C RC performance was better compared to their counterparts in schools A and B, while 3C (7.25) was slightly lower than 3B (7.85). Performance on literal

questions as usual was better than the HO questions. For RC both Grade 3 and 4 learners at the 75th percentile scored higher than the overall grade means across the grades. However, Grade 4C had higher RC mean, literal mean and HO mean than in the other Grade 4s in Schools A and B, which suggests that the teacher's more explicit instructional methods in School C were possibly paying off. Just like the other schools the relationship between ORF and RC still obtained: poor decoders performed poorly in RC and those who read more fluently also performed better in RC.

6.2.4 Visit to School D

My first visit to school D was on 5 July 2016. School D was located in the CBD and was a high SES school. It catered for children from low and medium density suburbs in and around town. However, there were a few learners from high density suburbs whose parents could afford transport fares and higher school fees. The school was headed by a male headmaster who was 61 years old and held a Master's Degree in Education, with 17 years as principal at that school indicating a wealth of experience in administrative duties. This school had class libraries manned by the class teachers. All the buildings at this school were neatly painted and there were well maintained flower beds and paved walkways within the school yard.

The school is also well known for its excellent Grade 7 results and it is very difficult to secure a place for children across all grades there.

6.2.4.1 Grade 3D

Grade 3D was taught by a 62-year-old female teacher who had been in the school for 12 years. She had a Bachelor's Degree in Educational Administration and had been teaching Grade 3s for six years. She had a good command of English. The teacher's desk was at the centre in front of the class. In the class was a female student teacher from a local teacher training college who was on teaching practice. The teacher's English proficiency was quite good and she only code switched when she started her lesson, with the rest of the lesson conducted in English. The learners worked very well with their teacher; there was order and the learners showed high discipline throughout the lesson.

Although there were 52 pupils, the classroom was very clean with pupils seated in groups according to ability. There were six groups altogether and two of them had 10 pupils each. All the pupils were clad in neat and complete uniforms which included hats (in Zimbabwe learners are allowed to wear school hats inside the classrooms) and their school bags were neatly tucked under the desks which made walking in the aisles easier. The pupils' desks had a shelf underneath for books, so only the books that they would be using at any given moment were found on the desks (see picture below).

There were both chalkboards and white boards in the classroom. Both boards had work to be done in class for that particular day in almost all the subjects.

The classroom had two neat lockable cupboards, one was used for library books and the other one was for textbooks. Exercise books were kept on neatly labelled shelves which ran on one side of the classroom. Pupils sat in groups but the classroom was small so the desks were closely packed. The group with slow learners was close to the teacher's table. Though the classroom was crowded it was well swept and there was a bin by the door. The walls were painted.

Fig 6. 11: Grade 3 learners



There were also two old cupboards which had art and craft items, old charts and work cards. There was a Science corner which had several items; bicycle wheel, coat hangers, an old iron, old electric gadgets, different stones, sand soil, and shells among others. There was also a shop corner which had a number of items representing what could be

found in most shops; cereal boxes, empty toiletry bottles, containers of various food items among others.

There were a variety of charts on the walls and most of them were in good condition. The charts were informative and were displayed according to subjects. There were a few charts in the English section with tenses, opposites, among others. Some charts had pictures of animals with names in English and diagrams about agriculture tools, the clock and mathematical signs (+; -; ×; <; >; =). There was only one laminated chart. Pupils' work which included tests and exercises in various subjects were neatly displayed on one corner of the wall under subject headings but there were neither compositions nor art/drawings.

Part A: The lesson introduction

The pupils started by greeting me and the teacher made introductions. The lesson started with the teacher asking pupils to refresh by standing up and sitting down, twice. She then activated background knowledge by asking how many had gone hunting, even though she had not yet introduced the purpose of the lesson or text. Only 3 pupils raised their hands which is not uncommon among urban children nowadays. She then asked what weapons were used for hunting and more children participated by raising their hands. They gave items like *spears, bows and arrows, knives*. The teacher asked for two volunteers to draw a spear on the chalkboard, maybe to engage them and make sure that everyone knew what the class was talking about but no other weapons were talked about. That took about seven minutes of the lesson time.

Part B: The body of the lesson

The teacher made use of four flashcards with the following words from the passage (*spear, hunting, trapping, mutamba*); she raised the flashcards in turn and one pupil read a word then the whole class read aloud together. Some of the pupils who raised their hands to read the words were shy to read aloud and the teacher asked them to do so. The pupils were asked to match the words on the flashcards with the ones on the chalkboard; a pupil would start by reading the word aloud and then place it in front of the same word on the chalkboard. Pupils participated enthusiastically and were asked to clap hands for those who did well. They later read all four words aloud together again. The teacher went on to hide the words on the chalkboard and asked individual pupils to spell the words while others listened. She then confirmed with the whole class

whether the spelling was correct or not. What the teacher and the learners were doing facilitated word recognition but nothing was mentioned about the meanings of words.

She then asked them to turn to page 105 of their English textbooks on hunting and made sure that everyone was on that same page before proceeding. Since their desks had a compartment for books they just pulled them out from there and read, unlike the other classes where group leaders had to give out textbooks. The text was a narrative text entitled *Hunting and trapping* (See Appendix C) and had 214 words - the same text encountered in Grade 3C. The book ratio was 1:2 and 1:3. The teacher asked general questions about the hunting activity before they started reading such as; *Have you ever gone hunting? What animals do people hunt for meat? Who knows a hunting trap?* The teacher asked the pupils to read the text in the form of a dialogue so she first asked for pupils to assume the characters of people in the passage as well as that of the narrator. That took about two minutes and the readers were all up and ready to read for the class. She emphasised that they read the passage three times before answering comprehension questions so that they understood the text. But there was no modelling. The passage was read three times in succession by ten learners before they started working on comprehension questions. The teacher emphasised that the purpose of reading several times was to understand the text. The teacher code switched as she tried to choose the characters, she said, *Mugoti unopiwa anyerere* which meant that she would choose readers who were quietly raising their hands. The selected pupils read very well and not surprisingly she knew which of her pupils were good readers. However, when the need arose the teacher interjected in order to assist the readers, though she never talked about comprehension strategies. During the reading activity the teacher did not ask any questions about the text. The text had Shona names of people and trees and during the course of reading pupils struggled to read the Shona words even though it was their L1.

The class had a special needs learner; an albino who needed specialised attention which because of his condition, affected his sight. The teacher included him in class activities by asking him to read, which he did very well although he held the book very close to his eyes. He read for a very short time and after the lesson the teacher said as much, as she wanted him to be exposed to reading just like his peers but she did not want to strain his eyes so whenever he read aloud she would make sure that it was only for a short time.

The teacher attended to those who were not paying attention. She conducted the lesson in a playful manner, saying, for example, *My mother told me to choose this one but I want this one*, as she selected a reader from among the many raised hands. That made the learning environment lively and interesting.

After reading the teacher referred to the Science corner which I assumed was meant to facilitate better understanding of the story. The teacher asked the pupils to look for a shell and they identified a tortoise shell, since from the story they had read about a fruit which had a shell. She was the only teacher who referred to the resource centre in her class though it was just one incident. One pupil who was misbehaving was asked to stand in front of the whole class as punishment. She handled her class well and made sure that almost everyone was attentive and participated while those who misbehaved were also managed accordingly so that learning progressed effectively.

Pupils were given questions compiled by the teacher to work on in groups so that they could present orally to the class. They maintained their group seating arrangement but came closer together to enable group work. They then read their questions to the class and provided answers. The teacher did not correct the pupils when they made grammatical mistakes, for example *The boys decide to catch ...* though the question was in the past tense. After the group tasks the pupils were asked to do written work from the textbook as individuals. The teacher reminded them what was expected of them in the examination when responding to multiple choice questions and structured questions. Maybe this was due to the fact that their mid-year examinations were just around the corner. The questions had both multiple-choice questions and open-ended questions. She also explained her expectations on the work that they were going to write which included underlining headings, writing neatly and numbering their work. She then asked them where they got the answers when writing a comprehension exercise and they all said the answers were found in the passage. She also reminded them to write corrections for the previous work. The pupils worked on questions from the textbook (nothing was put on the chalkboard). They worked quietly as individuals. Everyone seemed to understand what they were doing. That part of the lesson took about 35 minutes.

Part C: The lesson conclusion

The teacher emphasised good handwriting and reminded learners to use their fingers for word spacing. She moved around checking the pupils' corrections.

At the end of the lesson the group leaders collected all the exercise books for marking from those who had finished. It was break time when the lesson ended so those who were done proceeded to the playground while those who had not finished continued writing their work.

6.2.4.2 Grade 4D

The Grade 4 class at School D was taught by a 60-year-old male teacher who was the only male teacher of all the teachers that I observed in this study. He had taught for 20 years in the school and that was his fourth-year teaching Grade 4 pupils. He had previously taught upper primary school (Grade 6 and 7).

Fig 6. 12: Grade 4D



The class had 54 learners. The teacher's English proficiency was very good and neither the teacher nor learners code switched during the lesson. The learners showed a lot of discipline but the weak group needed close monitoring because their behaviour was disruptive compared to the other learners in the class.

The teacher's table was in the front by the window and opposite the door but the teacher's table was somewhat disorderly. However, there were some nicely decorated pieces of art which contained the teacher's pens and other accessories. There was a class library which had a variety of library books; about a hundred books in good condition, just like the Grade 3C class.

The classroom was neatly painted and tidy and had both whiteboards and chalkboards which were effectively utilised. The pupils' desks were arranged in groups which ranged from six to eight pupils. The last group which had slow learners sat close to the teacher and from my lesson observation they really needed close monitoring because of their disruptive behaviour. The learners had to turn their faces in order to look at the chalkboard. There was a storeroom which had shelves for both text and exercise books. Here too the pupils' desks had a shelf underneath where they placed books that were not required on the table. The classroom had a wide range of charts which were displayed according to subjects. Some charts were laminated while others had pictures from magazines, for example showing musical instruments, plants and agricultural equipment. Old charts were piled on a table in one corner. There was a Science corner which had two models of traditional huts, shells of indigenous fruits and old electric gadgets among others. There was also a shop corner which had a number of items ranging from empty containers of drinks, disinfectants and cereal boxes.

I sat by the teacher's table which was against the window in front of the class facing the door, from which angle I could see the whole class.

Part A: The lesson introduction

The teacher started by asking general questions about toys which was a way of activating their background knowledge since they were going to read a text on toys, though the teacher did not state this explicitly or write anything about the lesson on the board. The teacher encouraged pupils to construct good sentences as they talked about their favourite toys. The pupils did that freely and eloquently. He then asked learners to take out their textbooks which were underneath their desks but before the class started reading the day's passage the teacher talked about the advantages of being a good reader, saying one could earn money through reading and asked pupils how that was possible. He emphasised the importance of reading. The teacher also talked about taking good care of textbooks because he said he had found some textbooks and loose pages that were left on tables after the pupils had gone home the previous day so he appealed to the owners of the books to be vigilant. All that took about 10 minutes.

Part B: The body of the lesson

The teacher asked the class to open their textbooks on the topic of the day (*Martin's toys*). Most pupils shared the textbooks in pairs. The teacher went on to model good

reading for the class which he did exceptionally well and then asked one pupil to read the whole text because it was a short narrative passage, only 73 words long. He then asked another pupil to read the whole passage for a second time. Both pupils read very well, they did not rush through the passage but read at a steady pace, clearly pronouncing all the words. There were about four pupils in the last group who were not following; they were talking without looking at the text but the teacher seemed not to notice it. However, other group members in the last group followed the reading by making use of pens and rulers, while the majority of the class followed the text quietly with their eyes.

The teacher asked them to read the story again in groups of four pupils per group so they could answer questions in groups which was a bit different from how I had seen pupils working in groups in other classes; here the groups were smaller. The pupils exercised a lot of discipline during group work. They orally presented their group work satisfactorily and the teacher immediately corrected those who made mistakes. Most pupils did not have problems constructing good sentences during the oral lesson. The pupils who did not pay attention in the last group were asked a question by the teacher but no-one attempted to respond. The teacher addressed the question to the rest of the class. However, during this part of the lesson the teacher did not identify or discuss any new words from the passage. The pupils were then given individual RC written work from the textbook and worked quietly writing in their exercise books but the four members of the last group did not write, they played and talked among themselves. Some even avoided the teacher by changing places when the teacher approached. The teacher moved around maintaining order and marking corrections. Most of the pupils worked quietly as individuals. That part of the lesson took about 30 minutes.

Part C: The lesson conclusion

As they were writing the teacher emphasised neat handwriting. The entire lesson was conducted in English. No code switching by both parties occurred from the beginning to the end and the pupils were very confident and fluent.

6.2.4.5 Linking class performance with classroom practice at School D

Below are the descriptive statistics of Grade 3D and 4D pupils from School D for the ORF and RC tests.

Table 6. 5: Descriptive statistics for Grade 3D and 4D ORF and RC results

	ORF	RC	Lit	HO
Overall Gr 3 mean	71.25	8.14	5.29	2.84
Gr 3D mean	86	11.88	7.4	4.15
Grade 3D Percentile means				
25	60	10.0		
50	90	13.0		
75	104	14.0		
Overall Gr 4 mean	72.94	9.17	6.13	3.09
Gr 4D mean	80.11	11.24	7.24	4.0
Grade 4D Percentile means				
25 th	63.5	7.0		
50 th	85	12.5		
75 th	103	15.0		

Overall School D performed better than all the other schools in both ORF and RC. Grade 3D outperformed all the other Grade 3 classes in ORF and RC tests; the class read faster than all the classes including all the Grade 4 classes and performed better than all the Grade 4 classes in RC, performing slightly above 4D. The performance of weaker 3D readers (25th) was within the same range as the average wcpm for the other Grade 3 classes, while the best readers read faster than the best readers in the other Grade 3 classes. On the other hand, Grade 4D read faster than 4A and 4B but within the same range as 4C, though slower than 3D.

Both grades' RC performance was better than the other three schools and even higher than the overall grade means. The Grade 3D weaker performers (25th) in RC outperformed the average score for all the other classes including 4D – a Grade 4 class within the same school. As was observed in other schools, 3D and 4D performed better in literal questions than HO questions though their means were higher than the other grades.

Overall, School D outperformed the other three schools. School A and B reading statistics showed similar low performance. School C and D had library services and learners had time for independent reading. The principals of these two schools also exuded strong leadership and they had systems in the school which promoted reading. At School C they made sure that independent reading was done every morning while at School D they had classroom libraries after they realised that their school library was not functioning properly. All this shows the value they placed on reading.

6.2.5 Themes arising from classroom audits and lesson observation data

Four major themes arose from the observation data, three of which had subthemes. First, I present the three themes that have sub themes, starting with a diagrammatic presentation with the major theme at the centre and the sub themes following from the major theme and then I discuss them one by one in detail. Lastly, I discuss the theme which does not have any sub theme.

6.2.5.1 Basic lesson structure

Basically, the eight lessons that I observed followed a similar sequence which mainly started with the topic/title of the day's work. Fig 6.11 shows the unfolding of the lesson from one activity to the next in a cyclic manner which was similar throughout the classes across the two grades.

Fig 6. 13: Basic lesson structure



Topic/title

During the initial stages of the lesson all the eight teachers referred to a topic on the chalkboard or in the textbook. Some referred to the topic and asked learners what they understood about the topic while others only asked learners to read the topic written on the chalkboard and without commenting they told learners that that was the day's topic and went on to introduce new words. About five teachers went on to briefly talk about

the topic or what it entailed, however, not much was said to activate learners' background knowledge, except for the Grade 4C teacher who engaged learners for quite some time talking about the park and using a mind map. In Grade 3A the teacher only asked what the topic meant (*Working together*) and nothing more, while in 4B the teacher asked learners to open their textbooks where the topic was and asked learners to read silently. During this part of the lesson most learners were not effectively engaged, the 'discussions' were not real discussions and there was no proper background knowledge activation.

Use of flashcards

The majority of teachers made use of flashcards to introduce new words, which in itself is appropriate, but there is more to vocabulary learning or a RC lesson than merely reading aloud words on flashcards. Typically, the teacher would raise a card and one of the learners would read it first and the rest of the class would read aloud afterwards. That exercise focussed more on pronunciation and incidental word recognition than vocabulary development. Asking learners to look at the words, read them aloud and provide meanings was in a way trying to provide learners with repeated exposure to the words, which in principle is not bad practice. However, explicitly directing learners' attention to word form (*What does the word look like, how do we spell it, how do we say it?*) and directing learners' attention to word parts (morphological analysis of words) helps learners know more about the structure of words and related issues like pronunciation and spellings.

Furthermore, it was not clear on what basis teachers selected words for the flashcards. Usually these are supposed to be words deemed unfamiliar to the learners and which occur more than once in the text, or else key words that occur several times in the text. Some of the words were not really 'new' words, for example words like *spear* and *hunting*; they are decodable words which learners were most likely familiar with. The choice of these words was not clear: some of the words did not occur several times in the text so wanting to draw the learners to it as a way of trying to highlight the theme of the text was not an apparent reason. Some teachers seemed to overlook unfamiliar words. The approach used by 4B teacher is possibly a more helpful way to identify unfamiliar words (i.e. asking the learners themselves to identify new words from the text). Generally, the way the teachers carried out the flashcard activity shows that there

was no clear distinction between word recognition and vocabulary learning, suggesting a lack of content and pedagogic knowledge about reading and effective vocabulary instruction.

Besides flashcards, none of the classes had word walls/banks where new words of the week were posted and which learners could refer to throughout the week in order to facilitate vocabulary development. Even during the lessons there was no follow up of the meanings of the new words to help learners master them. Multiple exposures are needed for new words to be learned and when learners are not assessed on what they have learnt they tend not take that particular work seriously. Vocabulary development requires explicit instruction as well as extensive exposure to a variety of reading material and regular informal assessments of new words introduced during lessons. All this leaves unanswered questions about teachers' content knowledge and pedagogical content knowledge on reading literacy.

Round robin reading

In all the eight lessons that I observed the reading comprehension lesson was done following a rather outdated reading method (which I shall refer to as the traditional method) where the text was read following the round robin method, i.e. having one learner read through the passage while the others listened and followed in the text, after which questions were asked and responded to, first orally as a class then in groups and also in writing as individuals. Although round robin can be a useful reading method, there needs to be a balance between this kind of reading activity and other kinds. For example, individual, paired or small group reading so that more learners actively take part in the reading activity, as well as ways to assist slow readers in smaller groups where they do not feel intimidated by their more fluent peers. Explicitly drawing learners' attention to fluency and repeated reading of a text to improve fluency have been found to be effective strategies, which could be done before attention shifts to comprehension.

Round robin reading can be ineffective (Morrow & Gambrell 2018; Harris & Graham 2015; Cazden 2011) for the following reasons:

- Often it is the best readers who are given the opportunity to read. Although this gives them more practise to improve their reading skills, it disadvantages struggling readers, who might end up developing negative attitudes towards reading lessons and decide to just sit back during reading lessons.

- Some learners might choose to listen to the reader without looking at the text which defeats the purpose of looking at the text and following the reader by silently reading, thereby familiarising themselves with word forms, spellings, pronunciation and prosody.
- Others might be anxiously waiting for their chance to read which might disrupt their listening and ultimately affect their understanding of the text.
- If the teacher follows a specific pattern (e.g. each reader reads two sentences/a paragraph) then some might read ahead to practise their portion and not pay attention to the text currently being read aloud. Again, that affects the comprehension process.

The fact that all the teachers (newly qualified as well as long serving teachers) in the study practised round robin reading suggests that this is how they have been trained to teach reading (a college curriculum issue), and the Grade 3 and 4 curricula do not suggest any alternative teaching approaches. During the interviews the teachers talked about challenges regarding fluency, pronunciation of words and comprehension questions but their discourse did not indicate clear understanding of what this involved or of the components of reading. This suggests that the teachers might not have adequate content knowledge of reading or updated pedagogic content knowledge related to explicit reading comprehension instruction.

Oral/group question and answer session

Questions can be a very powerful tool in reading comprehension but their efficacy depends on what kinds of questions are asked and how. The teachers asked their classes questions after the reading activity and some of the teachers referred to that part of the lesson as the ‘discussion.’ During lesson observations they would say things like *Let us discuss what we read* when in actual fact it was just teacher talk or a question-and-answer session without any open-ended talk of the topic by eliciting learners’ views, engaging their background knowledge or challenging their horizons. Through questions learners can be made to cognitively engage with the text but in these classes the questions tended to be cognitively undemanding. Questions should tap into different levels of comprehension and include different questioning techniques to help learners get the literal and the deeper meaning of the text. The teachers did not invite learners to ask questions about the text save for Teacher 4B and here the learners came up with simple questions which suggests they were not familiar with questions which required

their feelings, thoughts, inferences or predictions, nor did the teacher elicit these from them.

There is more to reading comprehension than just reading a text and answering questions but during the lesson observations learners were not accorded the chance to really engage their background knowledge, express their opinions or make predictions; teachers concentrated more on the straightforward questions. The teachers did not ever mention any reading comprehension strategies (although reference was made to summarising). For example, in one class learners were asked to summarise a text, but the teachers never showed pupils *how* to summarise a text, for example, by identifying main ideas in each paragraph of an information text or by identifying the story elements in a narrative. Failure to refer to these strategies suggests that the teachers lacked appropriate content knowledge of reading comprehension.

Corrections

Corrective feedback and opportunities to correct one's errors can be helpful in the learning process but its efficacy depends on *when* and *how* it's done. During the written part of the RC lesson, seven of the eight teachers reminded their classes to first do the corrections of the previous work before they wrote new work. Correction time thus interrupted the 'flow' of the reading lesson as it involved work from a previous lesson. Furthermore, none of the teachers took time to work together with the learners showing how they failed and how they were supposed to correct themselves. Some teachers called out the correct responses so the learners could write them down while others told them to copy from their peers who got the answers correct. Although doing corrections can be helpful, the way it was done was not helpful to the learners, it was more of superficial compliance with the requirement that learners should do corrections or that they should be given feedback. Taking 10 minutes at the start of the reading hour to first do corrections of the previous day's work, then devoting the rest of the reading hour to the new text, its purpose, structure, words and layers of meanings would be one way to structure the RC lesson so as to avoid interrupting the flow of the lesson.

Individual written activities

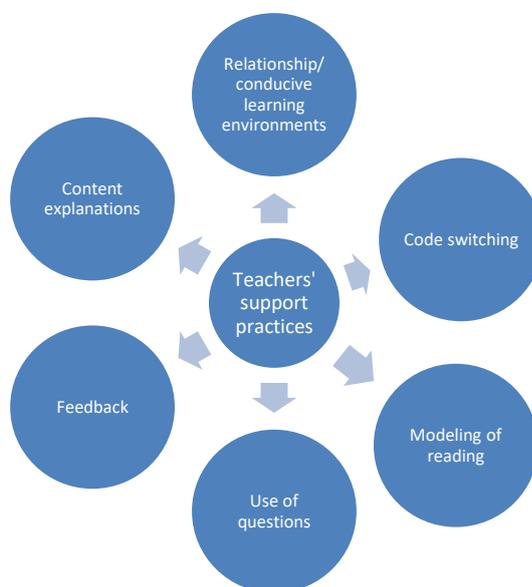
Reading and writing complement one another so including written activities in a reading lesson is in principle sound pedagogic practice. During lesson observations I noticed that all the teachers except one (TC3) gave written work at the end of the lesson.

I also gathered from the interviews that learners were supposed to be given a written reading comprehension exercise once every week as required by the syllabus. In fact, the work was evident in the learners’ exercise books and teachers did comply with Ministry regulations. In principle, the written pieces of work gave the learners ‘a lot of practice’ but maybe the way it was done was not effective because learners still had challenges, as observed during lesson observations and also as shown by the sampled composition exercise books. Quantity alone is not sufficient, but quantity combined with quality helps much in the learning process. The teachers need to have content and pedagogic knowledge on reading literacy for learners to effectively benefit from the reading and writing activities.

6.5.2 Teachers’ support practices

This theme foregrounds what the teachers did in their endeavour to help learners during reading comprehension lessons. Just like the previous theme, the practices identified here were similar among the eight teachers though there were minor variations. Fig 6.12 shows the second major theme and its sub themes:

Fig 6. 14: Teachers’ support practices



Relationships/conducive learning environments

Good teacher-learner relationships and learner engagement also play a critical role in the learning process. In all the eight classes there seemed to prevail good relations

between the teachers and the learners. The teachers seemed caring, kind-hearted and sympathetic to the learners and most learners showed that they liked their teachers and were obedient to their instructions. Even the misbehaving learners were reprimanded in ways which made the learning process proceed smoothly. Some teachers tried to make learning pleasant and rewarding, for example the praise ‘showers’ in Grade 3A after a group did well and also what the Grade 4C teacher did at the beginning of the lesson in order to attract the learners’ attention. However, most teachers did not make the classroom environment a more conducive or exciting space for learning, mainly because they did not encourage their learners to actively engage with the text or be more proactive in their learning. The questions which they asked did not help learners explore the text further in order to arrive at a deeper meaning of the text. There were no varied activities which enabled tapping into learners’ experiences, it was mainly teacher talk which made most lessons somewhat dull and boring.

Modelling of reading

Modelling reading for the class is important because it can help make the meaning of the text clearer, it directs the learners to how they should read, especially in the early years of learning, and for L2 readers it shows them how unfamiliar words are pronounced and the teacher models the speech patterns or prosody of the language. Of the eight teachers only three teachers (TA3, TC3, TD4) modelled reading for their classes, although this was done implicitly rather than explicitly. Two of the teachers read only the first paragraph of the texts while TD4 read the whole passage (albeit a short text). Reading comprehension does not happen naturally, it has to be taught and one way of teaching is by practically doing it, in this case reading the text. Learners learn by observing (Bandura 1968; 1986) especially if their attention is explicitly drawn to aspects of the thing being learned, and Grade 3 and 4 is a transition stage which means learners need a lot of guidance with the reading of the different text genres they get introduced to, but sadly that was not the case in most classes. Such practices suggest lack of pedagogical knowledge about reading literacy.

Content explanations

During the reading comprehension lessons there were very minimal content explanations or discussions. Teachers talked about the topics somewhat superficially, had flashcards for new words and had question and answer sessions but there was very

little actual discussion or elaboration of the content of the text. The teachers did not explain the texts which their classes read, and most of them got into the question and answer sessions as soon as they finished reading the text. Maybe the teachers assumed that the questions which they asked covered that aspect of the lesson, but there was also need for content explanations so that learners understood what the texts were all about. The absence of content explanations could partially explain why most learners showed poor understanding of the read texts. This shows that generally the teachers lacked pedagogic knowledge of how to support learning and engage learners in the learning process.

Use of questions

As indicated in the previous theme, questions can play a powerful role in learning and in helping readers understand texts at a deeper level. On a positive note, although all the teachers used questions during their reading comprehension lessons, the question and answer sessions were teacher-dominated, and learners were not really given the opportunity to ask questions, save for class 4B where learners were asked to compile their own questions. The questions which learners were given were simple and straightforward and cognitively undemanding in nature; there were few questions requiring inferencing, integration of information across the text, making evaluative judgements, and no questions about feelings or new information learned from the text. The quality of questions did not stimulate learners to engage more deeply with the text. It seemed as if the teachers did not expect their learners to do complex things. Maybe the teachers did not prepare well for their reading lessons; mapping out learner activities before during and after the reading activity since all except one lesson (4C) were rather monotonous. I also noted that most of the questions across the grades were directed towards the able learners while the slow learners were often overlooked. It could be that the teachers lacked the appropriate pedagogic knowledge and as a result they were not even aware of the fact that they were not ‘doing it right’ (Pretorius & Klapwijk 2016).

Code switching

Though code switching can be a useful tool in the language/literacy classroom, especially when dealing with learners of low proficiency or cognitively demanding concepts or new vocabulary, it should not overtake the target language (Azran &

Narasuman 2012). Seven out of eight teachers did code switch during their lessons and this is a reality in the L2 classroom. The code switching came in two ways; code switching for class management and for teaching in order to convey content. Most teachers used it for management while one teacher used it to convey content for the greater part of the lesson. TD4 was the only teacher who did not code switch at all nor did his class. Some teachers may have relied more extensively on code switching due to proficiency challenges, for example TB3, whose lesson was mainly conducted in Shona and her class obtained the lowest reading scores of all, performing poorly in both ORF and RC. Where code switching was used to maintain order, it was generally successful, for example when learners were instructed to settle down. Eight classes are too small from which to draw general conclusions about code switching in Grade 3 and 4 ESL classrooms; it may be coincidental that in this study the class that performed the best on the reading assessments (D4) had a teacher who did not code switch at all, and the class that performed the worst (B3) had a teacher who constantly code switched. Other factors may also have contributed to the learners' low reading performance, but code switching could certainly have played a role as the pupils in 3B were exposed to much less English during class time than their peers. Further research that actually compares the amount of code switching in a classroom with learner performance is clearly needed.

Providing feedback

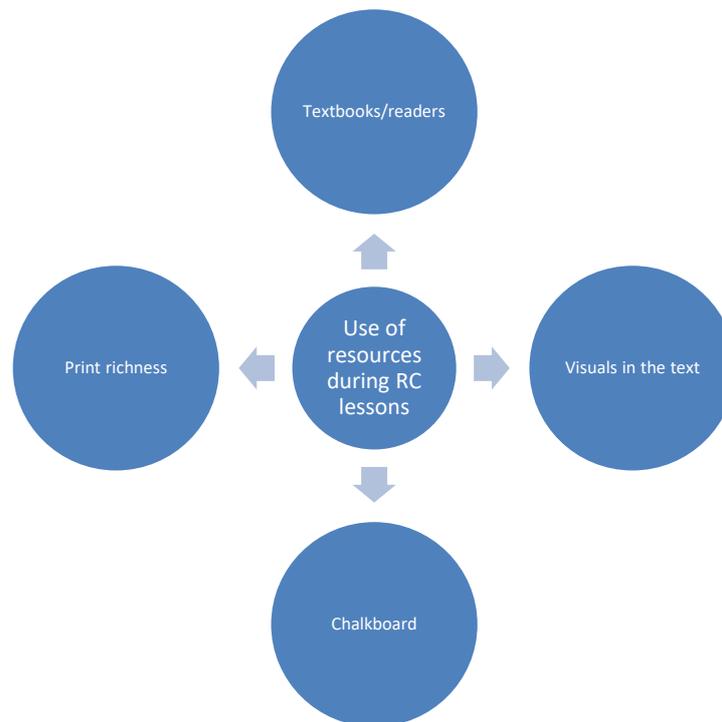
Providing learners with corrective feedback during class time helps learners understand the concepts better. During the lesson observations most teachers gave their classes feedback about the reading and writing activities that they were doing, but the effectiveness of the feedback varied, depending on the activity. During the pre-reading oral activities like the vocabulary activities teachers gave prompt corrective feedback for word recognition or pronunciation which is good practice. However, corrective feedback during the question and answer sessions was more implicit or lacking entirely. All the teachers seemed to do the same thing; if a learner got a question wrong they did not explain why or even try to suggest how a learner could arrive at the correct answer, they just looked for someone else who could give a correct answer. From the sampled composition exercise books, I also noted that there was little evidence of focussed, corrective feedback, in fact most teachers did not write any feedback. This suggests little explicit teaching in these classes, which disadvantaged learners, especially those

who had challenges. It seemed as if asking questions and marking exercise books was a superficial exercise where the teachers would derive satisfaction from the fact that they did reading comprehension or gave written compositions without considering its effectiveness and whether they were providing adequate feedback and guidelines to take learning forward. Maybe the teachers were not aware of their shortcomings which indicates inadequate content and pedagogic knowledge as a basis for critical self-reflection.

6.6.3 Use of resources during reading comprehension lessons

The classroom and lesson observations helped to show the types of reading resources available in the classes and how they were used. Through this theme I present information about the classroom print richness and textbooks/readers.

Fig 6. 15: Uses of resources during reading comprehension lessons



Print richness

Availability and access to rich print environments is critical to the development of reading literacy and even the development of motivation to read. All the classes in this study displayed some measure of print richness, for example, charts with different

information about all the subjects carried out at Grade 3 and 4 levels in Zimbabwe. The charts were presented in different shapes, sizes and colours, some were even bound and laminated. The most common topics in the English sections had language information e.g. verb tenses, opposites, similes, nouns, pronouns and prepositions. There was nothing on reading literacy information e.g. genre types or RC strategies, or information about children books or well-known authors. All the charts were self-made and none displayed weekly themes; informal discussions with teachers highlighted that charts were not prepared for particular lessons. Although alphabet friezes, classroom rules and calendars are print resources that are typically displayed throughout the year, the other charts also looked as if they were permanent fixtures. There were no word walls where new words encountered during the week were displayed. In some classes there were pictures on different topics/subjects. Learners' work was also displayed in almost all of the classrooms across the subjects. However, no teacher referred learners to the charts on the walls during the lessons that I observed. This suggests that the charts served more of a wallpaper or decorative artwork purpose than teaching and learning aids, and were possibly a form of superficial compliance to Ministry requirements.

Two schools (C and D) had library facilities while the other two did not, although TB4 was trying to build a classroom library with her learners. Providing children with easy access to books, like a library corner in the classroom, shows that value is placed on books. When a school has library facilities learners have the chance to borrow and read different library books on their own. Reading literacy development thrives where learners are exposed to a lot of different reading materials. Some of the teachers in the study, unlike the TB4 and T4D, seemed to lack initiative and resourcefulness in mobilising reading materials.

All the classes had a Science corner which had visual support material for learning except for 4B. I gathered from informal discussions that it was Ministry requirement for each class to have a Science corner. Each class teacher had to create a resource centre/corner together with his/her class where different science/nature items could be displayed and referred to during the course of lessons. Although there were science corners in each classroom, only one teacher (TD3) made use of it during her lesson. Maybe the teachers' failure to refer to it during class time was because it was not regularly updated to reflect the weekly themes across the subjects in all the classes. Some of the reading topics which were covered during the lesson observations (*Hunting*

and trapping, Collecting eggs, Martin's toys, A visit to a game park, Working together) could have been linked to the Science corners if teachers had planned ahead and regularly updated their Science corners. Similar to the charts, the Science corners seemed to serve as a form of artwork display in the classrooms which did not add any value to the teaching and learning of reading literacy. This suggests that teachers were superficially complying with the Ministry requirement.

Core textbooks

Access to textbooks in and out of school is very necessary for reading literacy development. Easy access to a variety of books gives learners the opportunity to read texts, look at visuals, become familiar with word forms, how words are spelt and even the overall structure or organisation of a text on their own.

The main resource in all the eight classes were the recommended English textbooks but they were inadequate; not every child had their own copy; books were not allowed to be taken home, so children could not do reading homework. The book ratio was as high as 1:3 in some classes while 4B was the only class where each learner had a textbook. Despite this lack, generally each child managed to at least access a book during RC lessons. Furthermore, some of the texts which teachers chose for their RC lessons were quite short for example the Grade 4 texts like *The African elephant* and *Martin's toys* suggesting that the increase in length and complexity from Grade 3 to 4 was not consistent.

Two of the schools did not have library or classroom library facilities which means the core textbooks were the only reading resource the learners physically interacted with. The books stayed in the school and in all the four schools, learners physically interacted with the books only during lesson times.

Visuals in the texts

All the texts that were read for the RC lessons during observations had visuals. Visuals are an important aspect of academic literacy since being able to interpret visuals helps in text comprehension. Some of the topics in question had quite informative visuals yet none of the teachers drew the learners' attention to them. The one-hour long lessons afforded teachers time to talk about the visuals, either as a pre-reading or during reading activity, yet there were no comments on or discussion of visuals by the teachers. This

lost opportunity suggests a narrow conception of reading literacy (reading is only about the text) and inadequate pedagogic knowledge on reading literacy.

Chalkboard use

The chalkboard can be a very useful teaching medium if properly used during reading literacy lessons. It is also the most common teaching accessory in most if not all schools whether rich or poor. As such the chalkboard was found in all the eight classes and all of them were in good condition; some schools had two sets of chalkboards – a blackboard and a whiteboard. The majority of teachers wrote the topic, new words and questions on the boards (but not TB4 and TD4). The chalkboard can be a very useful resource during the RC lessons; teachers could use it to write the topics and new words (as these teachers did). It could also be used for a variety of other purposes, such as creating mind maps or flow charts, capturing the main ideas from the story, to teach about the structure of the text or to show the morphology of words. Sadly, however, the humble but versatile chalkboard was underutilised by most of the teachers.

On the whole the classroom and lesson observation findings suggested that some of the things that took place during the reading literacy lessons showed the teachers' superficial compliance to Ministry requirements. The curriculum itself is a rather narrow and outdated four-language-skills communicative approach that does not reflect current advances in reading knowledge and instruction. Although the teachers were dutiful and conscientious, one can surmise that they lacked appropriate reading literacy content and pedagogic knowledge which in turn affect their classroom practices.

6.2.4 Qualitative differences between the teachers whose classes performed better than the other classes and the rest of the teachers

From the observations there seemed to be a tentative relationship between what some teachers did differently from their peers and learner performance. T4C, T3D and T4D in some respects carried out their lessons qualitatively different from the other teachers. For example, the Grade 3D teacher is the one who made use of the Science corner and the learning environment in her classroom was conducive for learning, she was in control and learners showed good discipline. She tried to engage the whole class and she also tried to activate the learners' background knowledge, though this could have been done better. It is in this class where the teacher talked about the type of questions

(multiple choice and structured) learners would encounter though she did not explicitly mention literal or higher order questions.

The Grade 4C teacher had a highly engaging lesson. She activated the learners' background knowledge beforehand by holding a discussion about a game park. She also made effective use of the board when she drew a mind map, using synonyms and opposites. This is the only teacher who talked about comprehension question types and explained how learners were supposed to respond to the different kinds of questions. There was minimal code switching which gave learners more exposure to English.

In Grade 4D the teacher activated background knowledge when the class started by talking about toys before reading the text, this helps learners comprehend a text better. The teacher himself was an avid reader as could be seen by the books on his table. He also indicated during interviews that his children read in the afternoon since there was no reading time on the timetable and made sure that he read all the books in their classroom library. Like T3D, neither the teacher nor the learners code switched during the lesson.

On the whole the three teachers whose classes performed better than the others to some extent carried out their lessons differently. Their lessons were engaging and they also seemed to place a lot of value on reading. Interestingly, these were also the largest classes, which suggests that better quality teaching can perhaps mitigate performance to some extent in large classes.

Having described what was in the classrooms and what teachers did in their reading lessons i.e. the 'doing' aspects of literacy, I now turn to their perceptions about reading literacy teaching and learning, derived from interview data from teachers and school principals.

6.3 Teachers' and school principals' interviews

In this section I present the themes and subthemes which emerged from the analysis of interview data (Data set 3). **The themes and sub themes presented here cut across the two grades since they were interrelated. Some of the issues that came up in the interviews were also ones that resonated in the classroom and lesson observations. The interviewees' actual words are presented in italics in this section. For a recap**

of the research questions see §6.1. First, I visually present a theme and its sub themes and then explain them.

6.3.1 Pedagogical issues to do with reading comprehension lesson preparation and delivery

The theme covers how reading literacy is taught, from lesson preparation to lesson delivery in the classroom. I also incorporate similar issues from observation data, while contrasting issues are also highlighted wherever applicable. Fig 6.15 below presents the theme and its sub themes:

Fig 6. 16: Pedagogical issues to do with lesson preparation and delivery



Planning and lesson preparation

From the interviews it became clear that teachers used what is referred to as a scheme-cum-plan which is done over the holiday for the whole term or on a weekly basis depending on the school.

TD4: I do a scheme cum plan during the holidays.

TA4: I do weekly plans because daily plans are taxing.

Four teachers compiled the scheme-cum-plan for the whole term over the holiday while the other four talked about making weekly scheme cum plans, though the documents bore exactly the same format. All of the teachers concurred that daily plans were taxing; the amount of work and their class sizes did not readily accommodate daily plans. As indicated in the syllabus documents, the lesson plans are uniformly expected to show the topic for the week, objectives, activities and evaluation. However, the manner of planning is not explicitly laid down in the syllabus documents save for topics, objectives, activities and resources/media, which might suggest that the teacher training institutions are the ones that provide guidelines during training and teachers implement them in the schools. The evaluation section of the taught lesson is not explicitly stated in the syllabus documents and what exactly it entailed was not clear, but all the teachers' scheme-cum-plans included it, and informal discussions with the teachers showed that the evaluation was supposed to be done at the end of each lesson. During lesson observations I saw the scheme-cum-plans and all the previous work was supposedly evaluated. Maybe the evaluation was not meant for critical reflection on how well the lesson worked but as a way of superficial compliance with Ministry requirements. It is a known routine that during the course of the term the school authorities and the Education Officers supervise the compliance of teachers since it is Ministry requirement that every teacher should have an up-to-date scheme-cum-plan. Some of these practices seem to reflect a superficial compliance with requirements when in actual fact no one takes them seriously and no reflective lesson appraisal is involved.

During the observations I noticed that all the teachers had well prepared plans; some had work for the whole term and others were a week in advance. The lessons were supposedly goal oriented through the objectives which the lessons were set to achieve. However, during the observations no single teacher explained the lesson objectives to the learners, even though they taught what was indicated on the lesson plans. This raises questions about what the purpose of the objectives is. Maybe the objectives are meant to guide the teachers as they execute their lessons and also to use them to measure learner performance when they evaluate their lessons without explicitly explaining them to learners. Or maybe the teachers just overlooked the need for them to explain the objectives to the learners. Also, content knowledge affects one's ability to reflect on whether or not objectives are met. It is possible that all the teachers genuinely

thought they had met their objectives in the RC lessons – but they lacked awareness of the difference between doing RC and explicitly teaching RC.

Though there was evidence of planning, planning for a whole term suggests that the process might become rigid, as it is difficult to replan for a lesson which failed to meet the objectives or where learners did not do well. One needs both long-term and short-term planning so as to keep the larger goals in sight and also weekly/daily plans which guide the actual teaching of specific lessons so that there is balance and flexibility in one's teaching, for example, revisiting a lesson when learners did not perform well or rescheduling work which was not covered due to unforeseen eventualities. That is only possible where there is flexibility, but term plans only do not provide room for such flexibility. However, I did not see any evidence in the work plans of work that had been replanned because it had failed to be covered during its stipulated time. Maybe it was a case of teaching according to plans rather than being responsive to learner uptake. This shows that there is a lot of formality and 'compliance' with official requirements to the detriment of effective reading development.

Print richness

It is a curriculum requirement that print resources (charts, pictures, work cards, papers, writing tools, etc) be made available in each and every class since print resources enhance the classroom environment and are critical for reading literacy development. The teachers certainly showed awareness of the need for print resources in their classrooms, e.g.:

TA3: *I make my charts over the holiday because that's when I have the time.*

TC3: *I make my charts using themes to be taught in the subjects.*

TD3: *I prepare my media during the holidays and then daily to tally with the lesson.*

TD4: *When I prepare my scheme cum plan that's the time I make my charts.*

The teachers indicated that they prepared charts and work cards for their lessons, claims which were corroborated from my classroom observations. However, it seemed as if the teachers talked about *making* the charts more than what they *used* them for. From the interviews it emerged that most teachers prepared their charts over the holiday, especially at the beginning of the year, which might mean that

the charts covered general themes and not specific weekly themes since most of the charts were displayed for the whole year. The fact that the same charts were displayed throughout the year was disclosed during informal conversations and during observations I also saw some old and faded charts. The teachers did not explicitly state that they used the charts during their lessons it seems as if they were saying charts were supposed to be on the walls whether they were used or not.

Ministry officials and school administrative staff carry out school visits where they look at the availability of such material in classrooms among other things, so as long as there are charts on the walls it reflects well on the teacher. However, the charts seemed to serve more of a decorative wallpaper function and superficial compliance to Ministry regulations rather than an active support tool in developing reading since not even a single teacher referred to them during the lesson observations. That might also point to the teachers' lack of awareness that, especially in print poor environments, print resources are key to effective reading literacy development.

Flashcards seemed to be the only print resource that was utilised in the RC lessons. Most teachers talked about the use of flashcards during their reading lessons, especially to introduce new words in a text. Flashcards are lesson specific and they had this to say about flashcards:

TB3: I use flashcards for new words.

TC3: I use flashcards.

TA4: I start with reading new words on flashcards.

It emerged during lesson observations that flashcards were the most common resource and the teachers used them in a uniform way: at the beginning of the lesson, where the teacher would raise it so the learners could see the new word and then one learner would be called on to read it aloud while the whole class chorused afterwards. The flashcards were used to facilitate word recognition and spelling of the new word though some of the words were familiar words and not new words as the teachers purported. Nothing was said about writing the new words in vocabulary notebooks, except in 4B where learners used their vocabulary notebooks. Even during lesson observations teachers did not

informally test learners for the spellings and meanings of the new words at the end of the lesson. The flashcards were not later put on word walls/banks to which learners could constantly refer to build their vocabularies. The use of flashcards was uniform in almost all the classes again suggesting the possible influence of the teacher training institutions and a lack of variety in vocabulary activities. This also suggests the teachers' lack of content knowledge regarding the difference between decoding/word recognition and vocabulary development, and pedagogic content knowledge about different activities needed for developing them.

Availability of reading materials

Related to print richness is availability of materials like textbooks, storybooks, reference books, dictionaries, magazines and library material. Teachers were asked to provide information on the books they used for their reading comprehension lessons. The following were their responses:

TA3: *Pupils read school textbooks.*

TD3: *They read short stories in their textbooks.*

TC4: *They read their own material and charts displayed on the walls.*

The teachers said they used the recommended textbooks for their English lessons and indeed the textbooks were the same in all the classes that I visited. They also pointed out that there were no other print resources in the schools (story books, puzzles, games) especially where there was no library facility; the textbook was the main reading material. When asked what their pupils read during their individual reading time some teachers said pupils only read the core textbooks, which points to the scarcity of reading material. *'Their own material'* meant all kinds of reading material they could find (novels, newspapers, magazines etc) but not everyone was able to bring something to read in class. Such a situation does not promote systematic reading among learners or even broaden learners' reading experiences.

The teachers went on to lament the shortage of reading material in their schools:

TA3: *There are no books in our school, children don't have enough practise during spare time.*

TB3: *The school does not have enough books for children.*

TD3: *Children do not have extra-reading material to read at home.*

TB4: *The problem is we don't have books here, that's why I am trying to build a class library.*

TC4: *Books are in short supply.*

Indeed, the books were in short supply but only one teacher indicated that she was trying to build a class library, others especially those from schools which did not have library facilities did not show such creativity or resourcefulness.

The school principals unanimously agreed that reading resources were supposed to be available in schools because they were key to learning.

HA: *Reading material should be provided.*

HB: *Ministry should provide reading resources.*

HD: *Schools should have library books.*

The principals' responses suggest that they believe that reading material should be provided without them taking other initiatives to acquire books. They also went on to say the following concerning resources:

HA1: *As a school in the high-density suburb most parents are not employed so they can't pay school fees and we can't buy books.*

HB2: *Parents can't afford reading material for their children and also don't pay fees so the school cannot even afford the prescribed textbooks.*

HC3: *Resources are limited especially in this economy and the government grant is not enough.*

The major constraint which they cited regarding provision of reading materials was financial constraints which schools faced; the government grants were too small and most parents were not forthcoming in the payment of school fees and levies, all of which made it difficult for schools to purchase enough reading materials. It seems they felt helpless and could not come up with other means of sourcing reading material like engaging the private sector or donor organisations.

Teachers' approach to reading comprehension lesson delivery

Both interview schedules had questions which probed how reading literacy was taught in the schools. The following reflect teachers' views of their methods of teaching reading comprehension:

TA3: *I first read and then they take turns to read to the class, we discuss as a class and I give them individual work.*

TB3: *Oral work in relation to the topic is my first activity, then vocabulary after which the passage is read and comprehension questions follow.*

TC3: *I ask them to take turns to read to the class and I also encourage poor readers to read in class.*

TD3: *I ask them to read to the class as well as to practise silent reading before answering comprehension questions.*

The Grade 4 teachers gave almost the same responses to the ones provided by the Grade 3 teachers. There was no difference in instructional approach between the two grades across the schools. From their responses, it was clear that teachers basically followed a traditional approach of ‘read text, answer questions’ with some variation, and this was confirmed in the lesson observations. From the teachers’ responses it seems the teachers thought they were doing it right when in fact they were ‘doing’ comprehension rather than teaching it (Liswaniso 2021). They seemed unaware that RC could be explicitly taught, and lacked knowledge of how best to teach it. Rule (2017) asserts that teachers tend to teach in the manner that they were taught; reading aloud focusing on mechanical skills such as pronunciation rather than comprehension which might suggest lack of pedagogic knowledge on the part of teachers (Pretorius & Klapwijk 2016). There was no explicit instruction of comprehension skills or strategies and yet this is a critical transition stage where reading comprehension takes centre stage across the curriculum. Because the lessons were somewhat monotonous learners might develop negative attitudes toward reading literacy. Once this happens they start to shun reading and the less they read the poorer their reading skills become, resulting in Matthew effects (Stanovich 1986).

Vocabulary activities carried out during reading comprehension lessons

Because vocabulary knowledge plays a critical role in reading comprehension, the teachers were asked questions about how they carried out vocabulary activities. The teachers gave the following responses:

TA3: *Learners identify new words and try to give meanings with the teachers’ help.*

TB3: *I identify new words; I say the word first so that the pupils pick the sound so that when they see it written they recognise it.*

TC3: *I identify new words, try to use them in sentences and then make them write spellings at the end of the week.*

TD3: *I use flashcards with new words and some are written on the board, I also use word pictures and phonic word building.*

TA4: *I ask them to read words on cards/ board and then use them in sentences to show their understanding.*

TC4: *All pupils should have dictionaries and vocabulary notebooks. I taught them how to use dictionaries. I write the new words on the vocabulary corner. I also carry out subject integration and it gives pupils exposure.*

TD4: *I teach the meanings of words bringing in synonyms and opposites.*

The teachers' responses showed very little variation; most of them mentioned identification of new words, providing meanings, using new words in sentences and writing spelling exercises weekly. From the interview responses and even lesson observations I noted that the teachers focussed more on showing the word (implicit word recognition) rather than understanding the meanings of the words or word parts, as evidenced by their emphasis on reading aloud for pronunciation and immediate correction for wrong pronunciation. In addition to pronunciation and spelling, vocabulary can be explicitly taught by focussing on meanings in out of context, teaching words thematically, drawing attention to word parts, putting the new words up on a 'word wall' for the week, providing learners with a variety of exercises where the new words are used, and at the end of the week assessing learners on the new words learned during the week. The teachers did not talk about diverse approaches to vocabulary instruction which suggests a lack of knowledge of vocabulary pedagogy.

The role of writing in reading instruction

The following were the teachers' responses concerning the role of writing in reading instruction:

TA3: *I give one comprehension, one composition and three language exercises a week.*

TB3: *I give them work every day; it is very effective because it gives them practice and practice makes perfect.*

TC3: *Daily as per Ministry regulation and it helps the child to follow up and reinforce oral lessons.*

TD4: *Daily plus a composition once every week and it is very effective because it helps the teacher to identify pupils' mistakes. Fast learners get more work - I don't stop high fliers.*

All teachers agreed that they gave their classes written work in English on a daily basis (reading comprehension, language structures and compositions) to help them have more practice. This is in line with the syllabus which has a section on learner activities which seems to guide the teachers. Basically, all the teachers said the right things when they said they gave work regularly to facilitate practice but what they said did not match their learners' performance. As discussed in Chapter 5, although an examination of the learners' exercise books showed evidence of regular written exercises, most of the work was poorly done and there was little focussed corrective feedback. Learners still showed signs of struggling despite weekly comprehension and language exercises. Simply *giving* a comprehension exercise weekly might not be an effective way to improve reading comprehension. This suggests that learners do not necessarily benefit from the frequency of the work but from how it is executed; providing explicit comprehension instruction has been found to be beneficial (Olivera, Lopes & Spear-Swerling 2019). It seems the teachers gave learners work to fulfill the syllabus requirements but the learners' performance was not used to inform teaching methodology; the writing activities lacked purpose other than 'practice.' The focus was more on giving written work rather than explicit instruction on how the work should be written and yet both are needed for effective learning to be achieved. Where learners are not given explicit instruction, their performance may not improve no matter how regularly they are given written work (Weih 2018).

Intervention measures

Related to instruction were questions on how the schools dealt with slow learners or those who struggled to read in the L2 class. The following were some of the teachers' responses:

TA3: *I use PLAP which helps to remediate pupils.*

TB3: *I use Performance Lag Programme (PLAP).*

TD3: *For written work we revise after writing in order to assist slow learners.*

TC4: *I give immediate feedback so as to assist those with challenges.*

TD4: *I use PLAP but at times they are many so it becomes a problem to help each one of them according to their needs.*

School principals HB2 and HD4 also talked about PLAP but the other principals just replied that teachers carried out remedial lessons with their classes. PLAP is a remedial programme introduced by the Ministry and is meant to assist learners with problems in English and Maths. The teacher is meant to identify the struggling learners during the process of teaching and learning and assist them using appropriate material and work. However, there are no teaching and learning resources for the programme or clear guidelines (like the minimum number of words that a learner should read to be considered a fluent reader at his/her grade level), so teachers use their own discretion based on the tasks that they give learners in class.

From the responses it seemed that some teachers claimed to carry out remedial lessons (PLAP) while others just did general revision with the class. However, just revising as a class is not the same as carrying out remedial lessons with targeted learners and it might not be very effective to those with specific needs. For example, during observations in some classes teachers openly told their classes that they failed but then went on to give those learners the expected answers as corrections without further explanations, or else learners were told to do the corrections ‘correctly,’ without considering that the learners failed in the first place which means they needed further assistance with the failed work (see descriptive summaries at the end of each school’s observation data). Learners would then copy from friends who got the work correct. Such practices do not help at all because learners need corrective feedback, especially struggling learners. When learners fail to do a task correctly they should receive specific timely guidance or else their learning might be negatively affected (Spear-Swerling 2015: OECD 2013). As the descriptive percentile statistics for learners for each class showed, performance at the 25th percentile showed that there were learners who were really struggling with their reading, but the teachers did not appear to have an accurate finger on the pulse of who was struggling, in which area or by how much. In the schools in question there was no strict adherence to Ministry stipulations because some teachers and school principals did not refer to PLAP. During interviews there were some who did not even mention that remedial programme. Basically, the above responses by the teachers suggest that the teachers were saying the right things, that struggling learners needed to be helped so they can catch up with their peers, but there was a mismatch between what they said and what was really taking place on the ground, it was more of lip service and superficial compliance with Ministry guidelines.

6.3.2 Teachers' and principals' perceptions of the role of reading in the teaching and learning process

To be able to orientate learners to reading literacy teachers should be aware of the role of reading in the learning process and be prepared to advance it. I was thus interested to see from the teachers' discourse in the interviews what their views on this matter were. Below is Fig 6.15 which shows the main theme and its subthemes.

Fig 6. 17: Teachers' and principals' perceptions of the role of reading in the teaching and learning process



The place of reading in the learning process

On this matter the teachers had the following to say:

TC3: *Without reading they cannot learn even Maths.*

TD3: *Reading is done in all subjects.*

TA4: *If a child can read and comprehend that can be applied to other subjects.*

TB: *It relates very well because there is a lot of reading in all the subjects so if one cannot read their performance in other subjects is affected.*

TD4: *It is key to learning.*

HA1: *Most pupils who fail are non-readers.*

HB2: *A child who is able to read is able to learn, without reading one cannot write or learn.*

HC3: *Reading makes it possible to access information, it facilitates understanding.*

Generally, both teachers and principals unanimously agreed that there was a relationship between reading and learning across all subjects. While such comments are to be expected in the schooling context, what is of interest here is whether that translates into appropriate behaviours and actions among the teaching staff. The teachers did not refer to other ways of cultivating learners' reading habits like encouraging learners to join a local library or encouraging them to read when they were at home by giving them homework, or identifying struggling readers and helping them become better. There seemed to be a mismatch between what was said in the interviews by teachers and principals and what happened in the respective classes and schools. The teachers did not seem to be aware of the difference between decoding and comprehension, and did not have specific tools that could help them identify and assist struggling learners. Some schools did not have classroom library facilities like a library corner where learners could access story books and information books, lacked independent reading time within the school learning time and did not even give learners reading homework, though all of them concurred that reading was central to learning. This leaves one wondering whether it was reluctance on the teachers' part to add to their teaching load or ignorance of best practices to do with reading literacy development.

Independent reading

Regarding learners' independent reading and library time there were mixed responses.

TC3: *Every morning the first hour is meant for reading. The principal is very strict about it.*

TD3: *There is no time on the timetable but I create a day for individual reading every week.*

TD4: *The school timetable does not have a slot for that but I create time with my children after normal school time.*

Only the two teachers from School C had reading time on the timetable (TC3, TC4) which indicated individual reading time where learners were free to read what they wanted to read and learners alternated between reading English and Shona texts while the other schools did not have it.

The School C principal attested to what school C teachers said.

HC: *Reading is indicated on the timetable, it must be planned. Reading is given special attention first thing every morning and this is enforced.*

This suggests that leadership can influence what happens in the classroom: the principal at School C made sure that reading was taken seriously by all teachers in the school and the teachers complied. As already indicated, the performance of learners in school C was better compared to schools A and B where there was no independent reading time because of hot seating (§6.2.3). Zimmerman (2017) points out that strong leadership contributes to the performance of a school. Teachers from School D professed to making more time for reading (which I could not verify as I did not do follow-up classroom observations), but the fact that this school outperformed the other schools in the literacy assessments (§6.2.3) bears testimony to what their teachers said.

Though the majority of teachers and principals agreed and seemed to understand the importance of reading, there seemed to be no overt effort to really make this happen. Giving children more opportunities to practise reading on their own (in class or via homework) helps children develop the desire to read even when they are outside the school (N’Namdi 2005; Guthrie 2004; Chia-Hui 2001). In this study two schools (A and B) did not have library facilities, and while teachers in School C were expected to assist their classes on their library day, the library periods were skipped on days when teachers were otherwise occupied. School D decentralised the library and created mini libraries in the classrooms, an approach which is a practical solution when there are budgetary constraints. Generally, Schools C and D were better off and so learners had easier access to books beyond the classroom textbooks, and this showed in their reading performance.

Teachers’ in-class reading habits

There was a question on whether teachers themselves read during the independent reading time in class when learners were around, thereby being reading role models. Only one teacher (TD4) indicated that he read while his children were also reading at the end of the day after lessons.

TD4: Yes, I read, I make sure that I read all the books in my class library so that pupils won’t lie to me when we talk about the stories they would have read.

TA3: No, I don’t read, that’s when I mark and record their work.

The two teachers (TC3, TC4) who indicated that they had individual reading time said that was when they did their administrative work while the other teachers said they did not have individual reading time on their timetables. One could cautiously conclude that

learners did not have the opportunity to observe their teachers engage in independent reading in their presence.

6.3.3 Challenges which teachers and principals said they encountered in the teaching and learning of reading literacy

In a bid to understand how the selected schools orientate children to reading literacy there were questions which tapped into the teachers' and school principals' perceptions about the challenges they faced. Most of the challenges they identified were primarily external factors which lay primarily either with the Ministry or the home rather than the school, such as lack of resources, class sizes, double sessions, SES factors and parental attitudes.

Fig 6. 18: Challenges which teachers and principals said they encountered in the teaching and learning of reading literacy



Resources

All the teachers and principals lamented the shortage of core textbooks and other reading materials. The following were some of their responses:

TA3: *There are no books children don't have enough practice during their spare time.*

TC3: *We don't have books so our children are not allowed to go home with the textbooks.*

TD3: *Our books are few so children don't have personal textbooks to use at home, all the textbooks stay in the school.*

TA4: *We do not have additional material, just one reader and fast learners do not have anything to read on their own.*

TB4: *The problem is we don't have books here that's why I am building a class library.*

HA: *We don't have enough books even prescribed textbooks are inadequate.*

HB: *The school fails to provide enough resources children end up sharing and this makes the resources wear and tear quickly and easily.*

HD: *Resources are limited for reading material especially in this USD economy.*

During lesson observations I saw that most learners shared textbooks. TA3 had the highest ratio of 1:3 while for the rest it was 1:2. It was in only School B where the Grade 4 class did not share textbooks. Apparently, that was the smallest class of 37 learners. Since schools had few books, learners in all the schools that I visited were not allowed to take textbooks home, afraid that the books would get lost or torn if this happened. Although such concerns are real, scarcity of books diminishes access to books by learners who already come from disadvantaged homes and are the very ones who need easy access to books. Besides the scarcity of resources, I noted during observations that some of the books were old and in bad condition, for example in 3B in particular, most textbooks were in a sorry state. That might suggest that the teacher who was responsible for that class and all the assets in the classroom did not care much about how the books were handled by learners. Maintaining the condition of books is also an indirect index of how much importance is attached to reading. There were no other textbooks in the schools except those recommended by the Ministry. The only teacher who had a number of different textbooks was TD4 who said it was his own personal collection for reference purposes, probably built up over his many years of teaching. This shows his resourcefulness and how highly he esteemed reading

compared to other teachers in the study. The key is whether pupils have easy access to books, not whether a school has a library or not, because there are other ways which can be used to encourage children to develop the desire to read, and this means teachers need to be proactive.

Class sizes

The issue of large class sizes was one that cropped up repeatedly.

TD3: My children are too many, it is really a serious challenge which we have in this school.

TC3: The teacher pupil ratio is too big.

TD4: The classes are too big which makes marking very difficult.

Almost all the teachers shared the same sentiment that the classes were big and said it affected how they executed their duties. Indeed, all schools had large classes; the biggest class had 54 children while the smallest had 37. Ministry policy states that a normal class ratio should be 1:40 in public schools and 1:20 in private schools. However, for public schools, policy remains on paper because the classes are always bigger than the recommended size. The class sizes are a result of infrastructural shortages, where classrooms and furniture are inadequate. This was confirmed during observations, where I noticed that classes 3A,3B, 3D, 4A and 4D were crowded and some of the groups were as large as eight to ten children, which is not ideal for group activities because not everyone gets the chance to participate. This might suggest why most teachers preferred oral activities and chorusing of responses because it is less work for them and helps to cover up for shortage of resources (Nag et al. 2016). However, without detracting from the very real challenges of dealing with large classes, School C and D which had the largest classes, performed better than A and B, which suggests that other factors besides number of learners in class can influence learner performance.

Hot seating

Teachers in schools A and B where hot seating was practised raised the issue as one of the major challenges because it impacted on their contact time with learners, timetabling of activities and sharing of resources among others. The teachers' said:

TA3: I do not have individual reading on the timetable because the time is limited due to hot seating.

TB3: Hot seating is a challenge we don't have enough time with children.

TA4: *There is no enough time especially for remedial work because of hot seating.*

Over and above all the usual challenges that teacher face, hot seating is an additional very real and onerous challenge for schools and teachers. It is a factor beyond the teacher's control, as it is a result of inadequate infrastructure which does not match the number of learners enrolled in schools and reflects the larger economic issues prevalent in the country.

Learner ESL proficiency

The other challenge which teachers mentioned had to do with issues related to learners' ESL spoken and reading proficiency. Although this challenge is inherent to L2 teaching and learning worldwide, it is especially challenging in low SES contexts where children have limited access to the L2 beyond the classroom.

TA3: *Understanding English and meanings of words is a challenge because of their poor backgrounds.*

TD3: *Children are not good at pronunciation and fluency.*

TC4: *Most learners in my class can't express themselves in English.*

TD4: *Spoken English is a serious problem, I teach a lot of oral lessons because my class does not respond to instructions.*

Comprehension, sentence construction and spellings challenges were also mentioned. I also witnessed most of these challenges during lesson observations and also in the sampled composition exercise books. Though these challenges are common in most ESL classrooms, the teachers in this study did not see themselves as contributing towards the challenge but blamed other factors like lack of resources, the Ministry and parents. Some teachers felt that the challenges were compounded by the fact that learners did not have the necessary material, or emotional and social support from home (these issues will be dealt with in a different sub theme). Only one teacher TD4 showed that he prioritised the challenge he faced in his class by having a lot of oral lessons so that learners could have more practise in speaking in English as a way of addressing the challenge. Most teachers did not explain how they addressed the challenges they faced. Although language and reading are closely intertwined, there also seemed to be a lack of awareness that reading itself could be a powerful way of exposing learners to the L2, rather than assuming that exposure to oral language was the only viable route to developing L2 proficiency.

Socio-economic factors

Teachers also commented on socio-economic factors which they said negatively affected their duties. The following were their responses:

TC3: *Economic situation affects children; parents are not around due to economic hardships so pupils do not have anyone who cares for them.*

TA3: *Learning is very difficult for vulnerable pupils because of lack of resources.*

TD4: *The economic environment in the country is bad, parents are struggling to provide for their children, children come to school without book sand pens.*

The school principals also shared the same sentiments;

HB: *As a school in the high-density suburb most parents are not employed, most guardians are old and economically incapacitated, they cannot provide the educational requirements and as a result the school fails to provide enough resources.*

HA: *Parents cannot afford reading material because of economic hardships, the school cannot even afford enough prescribed texts because of the catchment area; there are many pupils living with grandparents who are overburdened and cannot cope, there are child headed families because parents have gone out of the country to look for greener pastures.*

HD: *Due to the harsh economic environment some parents now prefer houses which are still under construction because they were cheaper to rent but this affects pupils because there won't be any electricity or water.*

Both teachers and school principals agreed that the dire socio-economic factors adversely affected the teaching and learning process; most parents/guardians did not have the capacity to pay fees, the meagre resources in the schools did not suffice. They also said some parents did not buy stationery, did not provide food or even proper shelter for their children. It is government policy in Zimbabwe that in times of serious drought (this is not a regular occurrence) children in high density suburbs and rural schools are given meals at school to help supplement what they get from their homes.

Parental/guardian attitudes

Parental/guardian attitudes were also given as another challenge affecting reading literacy development. The following were some of their responses:

TB4: *Some parents believe that it is only the teachers who should do everything to assist learners in their learning.*

TA4: *There are parents who show no interest in their children's learning, they don't sign homework, they don't come for consultation and they don't pay school fees.*

HA: *Some parents are not cooperative, they say it is the teacher's job especially those whose children are not good; they don't buy books they do not cooperate at all.*

HC: *In some homes they do not see the importance of reading or discussing with the teacher how their children are doing so it is entirely the school's effort to assist learners which is not the case.*

All teachers and principals agreed that there were two groups of parents: those who were cooperative and those who were not, and the problem seemed more serious in high density suburbs as well as for children with learning challenges. They also highlighted that most homes were not conducive for reading literacy development, a situation typical of high poverty contexts. Under such circumstances, although teachers and principals cannot change parental SES, they could help make reading a priority in their schools by being resourceful and proactive (e.g. engaging the business community to partner with their schools in order to advance reading literacy). Schools can influence parents' attitudes and practices to a certain extent by actively involving them in their children's literacy activities, like monitoring homework and participating in school meetings and sporting school activities. Such initiatives did not seem to be present in these schools.

6.3.4 Teachers' and principals' perceived solutions to the challenges encountered in the teaching and learning of reading literacy

This section reports on possible solutions seen by the teachers and principals themselves. Teachers' solutions seem to be based on external, structural issues like class sizes and resources while the school principals' input was largely administrative.

Fig 6. 19: Teachers' and principals' perceived solutions to the challenges encountered in the teaching and learning of reading literacy.



Reduction of class sizes

TC4: The teacher-pupil ratio is not friendly. If I was given the opportunity I would introduce assistant teachers or smaller classes.

TB3: Teacher-pupil ratio to go down in order to enhance reading.

TD3: The classes should be reduced especially in lower classes.

HA1: Teacher-pupil ratio to be reduced so that teachers can have a one-on-one interaction with pupils.

Teachers unanimously called for the teacher - pupil ratio to be looked into. Teachers wanted the class sizes to be smaller to make it easier for them to effectively carry out their duties. HA1's response about one-on-one interaction is not feasible so maybe he was emphasising the efficacy of smaller classes.

HA1: Hot seating is to be removed and also infrastructure to be improved on.

Those in schools where hot seating was practised recommended that it be banned because it also affected the time of physical contact with learners and even the principals suggested so.

Notwithstanding the fact that class size and hot seating are serious challenges to optimum teaching, there was a sense that the teachers' pedagogic solutions inclined more to 'correcting the structural issues' rather than appraising the quality of 'how we do our RC lessons'. No-one seemed to talk about professional development to improve teachers' knowledge and skills; maybe they did not see anything wrong with their teaching despite the poor learner performance which even they complained about. This might mean that critical reflection of lessons is not part of teacher training and that the schools do not use learner data to inform their teaching or are not aware that there are different ways of teaching reading.

Adequate provision of resources

Teachers and principals also said that some of the challenges could be addressed by availing resources through government grants and community participation.

TD3: I would like to see children moving around with many books in their satchels for reading.

TA4: I would emphasise on the availability of libraries and library material. I would allocate more money for the acquisition of reading material so that learners can enjoy reading.

HD2: Responsible authorities should establish community libraries which are functional and affordable.

More reading material and library facilities were given as possible solutions though these become effective where learners already have good decoding skills and can properly utilise the written texts for reading to learn or for enjoyment. None of the teachers expressed a need for collections of graded readers to help build up learners' sound decoding skills that matched their reading levels.

More time for reading

The teachers also talked more generally about allocating more time to reading, comprehension and composition writing. The following were their responses:

TA3: I would put more comprehension on the timetable.

TA4: I was going to allocate more time to reading because reading is the beginning of everything.

TC4: I would make sure that the timetable is not congested, and allocate more time for composition writing.

The above responses show that there were some teachers who wanted more time allocated to reading, on the assumption that ‘more of RC lesson time’ will lead to ‘better performance’. However, while there is some truth to this assumption, scholars also point to the importance of engaged time rather than allocated time (DeStafano 2012). Reading might be allocated more time on the timetable but engagement might still not be meaningful. The one-hour RC lesson provided for in the Zimbabwean timetable might still yield some benefits if it were more effectively utilised, and if similar RC strategies could be adopted in Shona/Ndebele home language classes so that reading skills could be strengthened cross-linguistically.

Strict enforcement of policy and programmes by the parent Ministry

Some school principals felt that weaknesses in the schooling system lay in lack of policy implementation and recommended that the Ministry enforces the implementation and strict adherence of schools to policy and programmes on reading.

HC3: *Policy implementation should be enforced.*

HB2: *The Ministry should provide a common reading programme for schools which is seriously implemented throughout the country and a common assessment tool for reading for all schools.*

While HD4 principal raised an important point about the provision of a common reading programme, unfortunately no-one else raised that point. In Zimbabwe there is no common assessment instrument for reading through the seven years of primary education. The Ministry is silent about it so schools did not assess reading, save for the class exercises and tests set by teachers and which pupils regularly write in class. This lack of providing stronger reading guidelines or monitoring reading at a national level is perhaps the reason why school principals called for stricter adherence to Ministry requirements.

6. 4 High-level takeaways from the findings

From the observation and interview data sets emerged the following high-level takeaways about the teaching and learning of reading literacy in the selected schools.

Teachers’ compliance to Ministry requirements.

The teachers in this study were very dutiful and compliant to the Ministry requirements. This was consistently reflected in their teaching plans, RC lesson structure, and written

activities in learner exercise books and putting up charts in their classrooms. Teacher compliance is desirable, especially where the compliance brings good results, but in this case, it was not evidently so.

- All of them maintained up-to-date scheme-cum-plans but these were not very flexible to the exigencies of daily or weekly plans. Such plans make it difficult to replan for a lesson if such a need arose. It means that their planning was not informed by learner performance or needs; maybe they were bent on covering a lot of content or fulfilling the Ministry requirement that teachers should have up-to-date schemes of work. It seems that what was important was having the appropriate documents but no-one questioned their effectiveness. It also appears that the documents did not inform and guide the teachers' teaching because although these scheme-cum-plans had an evaluation section, it did not promote critical self-reflection of lessons or assessment of learner performance. This suggests that both Ministry requirements and teacher compliance are superficial because even when the officials visit schools the anomalies between due diligence and learner performance are not picked up or if they are, little is done to rectify them.
- The RC lessons were one hour long across the schools and grades, as indicated on the timetables, and teachers dutifully held RC lessons once a week. Even those who had hot seating had the same RC time as other 'normal' schools. Quite a lot of impactful activities could be carried out during that one-hour long lesson but still the learners' performance was poor. DeStafano (2012) argues that a lot of time is wasted in schools doing things which have little to do with learning; one could argue that although the children were kept busy during the hour-long lesson, reading texts and 'doing RC,' little learning was actually happening since there was minimal explicit teaching of *how* to read well or deeply, and there was little meaningful engagement with text. The syllabus documents stipulated that there was supposed to be a written exercise per day, a RC activity/test and a composition per week. All the classes in the study had evidence of the written work and the teachers' records dutifully documented it all. Although the teachers were very compliant and committed, the learners' performance did not match the frequency of work or the teachers' efforts. Teaching

resources are also expected to be available in the classrooms to support teaching and learning. As a result, all the teachers had charts, though the charts were more inclined to language than reading literacy. There were also pictures and Science corners as per the Ministry requirements. However, these materials seemed to serve a decorative purpose rather than to support literacy learning. It may be that in preparing the materials the teachers were motivated more by the Ministry officials finding ‘everything in order’ rather than by considerations of how print resources could support literacy development in the classrooms (N’Namdi 2005; Chua-Hui 2001).

Structural issues such as hot seating (in some schools), large classes and inadequate resources create barriers to effective teaching/ learning in classrooms

- Of the four schools in the study two had hot seating. This is a major challenge in the teaching and learning process in general and reading literacy per se and this was reflected in the poor reading results from these two schools. Bell (2015) reports on the combining of classes in Zimbabwean schools during the rainy season which shows that hot seating is a common challenge in the country (International Labour Organisation 2016).
- All the schools had large classes and some classrooms were cramped, especially Grade 3B and 3D. However, in this study class size did not determine learner performance since the largest class performed the best in the reading assessments. In large classes there are other factors also at play that can influence teaching/learning. Generally, the four schools did not have adequate textbooks since the majority of learners shared the textbooks and as a way of safeguarding the few that were available, no school allowed its learners to take books home. As a result, learners had limited access to books and the teachers’ teaching strategies which lacked explicitness made the situation worse for learners. Scholars argue that by end of Grade 3 learners should have developed solid reading skills because this is necessary for all future academic progress (Sibanda 2017, Pretorius 2014; Espinosa 2010; Gibbons 2009) but this is not feasible where there are critical shortages of reading materials. Even the compositions that I examined showed that the learners lacked practice in reading physical texts as evidenced by spelling errors, poor sentence construction and even improper use of tenses.

Common approach to reading comprehension across schools that does not reflect recognition of (i) different components of reading or (ii) an explicit instructional view of RC

Nothing about the components of reading was reflected in the teachers' approach across the grades and the explicit instructional aspect of teaching RC was completely missing, as was the facilitation of understanding, showing learners how to construct meaning from texts. Increasingly from Grade 3 onwards, RC vocabulary and RC strategies should become the major focal point. The teachers in this study did not refer to RC strategies, save in passing. It is important to note that teaching practices have changed and an explicit teaching approach to RC has been found to be effective where the teacher explains, demonstrates/models and guides and facilitates learners through the activities to a point where independent practice by the learner is possible (the gradual release model) (McVee 2018; Pearson & Gallagher 1983). Most of the teachers did not even model good reading to their classes. Liswaniso (2021) similarly comments on the Namibian Grade 5 teachers' approach to teaching RC where they were doing comprehension and not teaching it. Learners do not naturally acquire RC strategies they have to be taught and given the latitude to practise applying them during RC lessons. Learning to apply strategies to texts promote learners' reading comprehension (NICHID 2000).

Classroom practices that suggest that teachers lack both content and pedagogic knowledge of L2 learning/teaching and reading literacy

Generally, what happened in these classrooms suggests that teachers lacked content and pedagogic knowledge.

- Teachers asked questions during their RC lessons but the questions were not cognitively challenging, they could not guide and facilitate their learners into getting a deeper meaning of the text; it was as if they did not expect their learners to do complex things. For example, there were no questions which could tap into the learners' emotions, prediction abilities, whether they enjoyed the story and why or asking learners to ask questions. Where this is done learners benefit more from the RC lesson and text comprehension is facilitated. Trudell et al. (2012) assert that teachers need to be trained to teach reading. Maybe the training which they got did not cater much for reading literacy content per se as well as reading pedagogy, especially considering the uniformity across the

schools and grades among the long serving members and newly qualified teachers. It seems as if the college curriculum for teaching reading needs an overhaul.

- The way teachers gave their learners feedback during the RC lessons or in their written work left a lot to be desired. None of the teachers explained to their learners why they got a particular answer wrong during the question and answer sessions or in their written work. During the lessons teachers would ask for someone to assist with the correct answer and for written work some teachers orally gave the answers or asked learners to copy from those who did the exercise correctly. There was no corrective feedback which would help the learners understand what they missed in the previous task. Teachers seemed not aware of the need for explicit instruction. All this points to a lack of proper training and regular teacher development workshops (Pretorius & Klapwijk 2016; Trudell et al. 2012) in order to keep abreast with the new trends in reading literacy instruction.
- The other classroom practice which showed that the teachers lacked content and pedagogic knowledge were the reading activities in class. It was mainly round robin reading with the fluent readers picked to read and most teachers ended up teaching a part of the class and not the whole class. Only two teachers modelled for their classes and yet modelling reading is an important component of teaching reading (Burch 2007; Harvey & Goudvis 2007). There was no paired reading or small group reading exercises where learners would read in small groups and share with the class what they read in order to encourage whole class participation and learner centred discussions about the text. Burch (2007) asserts that the teacher's role is to support the learners to a point where learners become independent but in this context the teachers seemed ignorant of all this.

Class management

- Some classes had groups that ranged from eight to ten yet I noticed that only a few individuals were actively involved in group activities and these were normally the bright pupils. Teachers could make better use of smaller groups and also made sure that the bright learners did not dominate the group activities but helped the weaker learners through collaborative learning.

- Code switching was mainly used for class management by the majority of ESL teachers in this study; only one teacher relied on the L1 for the greater part of the lesson and the learners performed very poorly in the reading assessments in that class. Excessive code switching combined with other factors may have contributed to this outcome.

6.5 Conclusion

Basically, the qualitative findings showed that reading literacy instruction was not properly enacted; there was a lot of superficial compliance to Ministry requirements, teachers lacked the appropriate reading literacy content and pedagogic knowledge and there were a number of other factors which negatively affected reading literacy teaching and learning. The quantitative results also showed that the learners in question had challenges with reading literacy as reflected by poor performance in both ORF and RC tests administered across the schools and grades though School D outperformed the other schools in both tests and it owed this to a number of factors which include availability of classroom libraries, teachers created time for reading for their learners, teachers' teaching approaches which were better than the other teachers' and there was no hot seating among other factors. The qualitative and quantitative data showed that there was need for teachers to revisit their reading literacy instruction practices and also reconsider in-service training and other relevant professional development measures though the teachers and principals did not mention it. The teachers did not see anything wrong with their reading literacy pedagogy, in fact they blamed other factors like lack of resources, large classes and parents; they seemed to lack a sense of critical reflection on their teaching practices. A number of suggestions on possible solutions to the challenges they faced were put forward by the teachers and school principals from their point of view and these included reduction of class sizes, infrastructure development and mobilisation of resources among others. While their suggestions are pertinent and apposite, the fact that more has to be done to improve the teachers' instructional practices, content and pedagogic knowledge remains at the centre of the solutions to poor reading literacy performance among learners in the selected schools.

Chapter 7: Conclusion and implications of the study

7.0 Introduction

In this chapter the different strands of the study are brought together. Firstly, I briefly summarise the aims and research questions of the study, its design and implementation. I also provide a brief outline of the issues dealt with in each chapter. Thereafter, the main findings are highlighted, followed by implications and recommendations for teacher training and classroom practices based on the findings. The contribution made by the study to the field of reading literacy development among ESL learners, particularly those in the developing world, is then identified, the limitations of the study are acknowledged and suggestions for further research made.

7.1 Summary of the study and outline of chapters

The study explored the development of reading literacy of Grade 3 and 4 ESL learners from four Zimbabwean primary schools in the Midlands province. My interest in finding out more about reading in the early years of schooling (Grade 3 and 4) was spurred by my experiences with university students. The university students that I work with display many challenges in as far as their written and oral tasks are concerned. The challenges include grammatical and spelling errors, lack of coherence and clarity in their academic texts, and poor academic literacy generally. Since learning revolves around reading and since reading development is cumulative I endeavoured to explore what happens earlier in the schooling phase: the Grade 3-4 transition stage of reading literacy. The findings about what happens during the transition from Grade 3 to Grade 4 might help shed light on the challenges faced higher up the academic ladder.

In order to explore the development of reading literacy among Grade 3 and 4 learners the mixed method approach was adopted in this study. I carried out classroom and lesson observations in all the eight classes and assessed the reading fluency and reading comprehension abilities of 188 Grade 3 learners and 187 Grade 4 learners from four primary schools. I also held interviews with their eight teachers and four principals respectively. In addition, the Grade 3 and 4 syllabus documents, textbook extracts and composition exercise books were examined. Five main research questions were posed

compelled to find out more about what happens in the early years of students' reading literacy development. Given the important role of reading literacy in learning, I decided to focus on Grades 3 and 4, which form a critical transition phase/stage in reading literacy development as well as in the general learning process at primary school. The African learning context was also briefly sketched in this chapter in order to provide insight into the broader context of which Zimbabwe is part, as well as to contextualise reading literacy development more concretely. To provide background information on the Zimbabwean learning context, the languages and language policy in Zimbabwe was briefly described and the way in which the Zimbabwean education system is structured from ECD to tertiary level outlined, with a main focus on Grade 3 and 4 levels. Table 7.1 above provides a recap of the research questions which guided this enquiry.

- Chapter 2 comprised the literature review appropriate to the study. Here I discussed the concept of reading and identified the various components involved in skilled reading. Two theoretical models that informed my study were the simple view of reading (SVR) by Gough and Tunmer (1986) and the decoding threshold hypothesis (DTH) by Wang et al. (2018). Gough and Tunmer (1986) stress that reading comprehension is a product of both decoding and language proficiency, while Wang et al. (2018) further explore the role of decoding in reading comprehension by emphasising that reading comprehension can only successfully take place if a certain decoding threshold has been attained. Kintsch's (1998) construction-integration theory (C-I) of reading comprehension which stresses the interaction of the text base and background knowledge to create a situation model necessary for text comprehension was used to explain the reading comprehension process. The stages of reading development were also explored, though my main focus was on Grade 3 and 4 which is a critical transition period from 'learning to read' to 'reading to learn' (Sibanda 2017; Espinoza 2010). The chapter also looked briefly at other factors which affect reading development such as school, learner and home environment factors.
- Chapter 3 covered the methodology section. The research questions which guided the enquiry required both qualitative and quantitative methodologies and

so a mixed method research design was employed. Grade 3 and 4 learners, teachers and school principals from four schools purposively sampled from the Midlands province of Zimbabwe participated in the study. Qualitative data was analysed through content analysis of the Grade 3 and 4 syllabus documents while readability and vocabulary profile analyses of Grade 3 and 4 text extracts from both content and narrative texts and composition exercise books, were also done. I administered RC and ORF tests to Grade 3 and 4 learners from four schools and I carried out observations in the eight classes sampled for the study and held interviews with their respective teachers (8) and school principals (4). The quantitative data from the RC and ORF tests were captured and analysed using SPSS.

The findings and discussion of the data analysis were presented in three separate chapters (Chapter 4, 5, 6). Chapter 4 and 6 addressed the qualitative research questions while Chapter 5 addressed the quantitative questions related to Grade 3 and 4 reading performance.

- Chapter 4 presented the analyses of the Grade 3 and 4 syllabus documents and the textbook extracts. The analysis of the syllabus documents highlighted how it perceived the teaching and learning of reading literacy - the aims, objectives, content, methods, resources and activities, and the positioning of reading in the syllabus documents in relation to other learning domains. A word frequency analysis was also used to identify key words in the syllabus and their frequencies to determine the concepts which the documents foregrounded in relation to key terms in reading literacy.

Text extracts were obtained from Grade 3 and 4 English narrative and content subject textbooks (Agriculture, Social Studies, Science and technology). Flesch Reading Ease and vocabulary profiles were used for comparative analyses of text extracts. The Flesche Reading Ease programme was used to explore and compare text features and text difficulty. The vocabulary profiles enabled comparisons of the vocabulary frequency levels across the selected texts.

- Chapter 5 presented the various quantitative findings of the reading data (RC and ORF test results) on the Grade 3 and 4 learners' reading abilities. In addition, an analysis of excerpts from sampled composition exercise books was

presented to see what and how learners wrote their compositions, using Flesche Reading Ease and vocabulary profiles for the corpus as a whole.

- Chapter 6 covered classroom practices as observed from classroom audits, lesson observations and interviews to examine what the teaching and learning of reading literacy entailed in the classrooms and what the perceptions of reading were of the teachers and principals as expressed in the interviews. I focused on the availability of teaching and learning resources/materials, the teachers' roles and the learners' activities; what they did and how they carried out their learning activities during the reading comprehension lessons.

7.2 Main findings

In this section I present the main findings in this study. The findings are presented according to the research questions.

RQ1 How do Zimbabwean policy documents position reading literacy in the elementary stage of primary schooling?

The study established that though the syllabus documents were well structured with clear headings and subheadings (Preamble, Aims, Outcomes, Activities etc), it was more of a general *language* syllabus; it lacked clarity, depth and explicitness in as far as reading literacy is concerned.

- **Clarity:** There is ambiguity surrounding the syllabus aims, especially with regard to reading; for example, the second and the third aims. The second aim concerns the preparation of children for future studies. It is not clear what that means or how it is supposed to be done and the vital role of reading in this process is not mentioned. The third aim states that children should 'understand texts' but what exactly that entails is not further elaborated in the document. Does it refer to reading comprehension in general or levels of comprehension? That is the only section where understanding texts is explicitly written in the aims and outcomes.
- **Depth:** The syllabus document mentions a number of issues without further elaboration. For example, it mentions the importance of promoting a reading culture but elaborates no further on what it is or how it can be achieved. Fluency is mentioned but there is no further explanation of what it is, what it entails or

how it can be assessed, and the same applies to reading comprehension. No norms or benchmarks for fluency or RC in ESL are provided.

- Explicitness: The syllabus document does not provide exact information on issues or outcomes, for example it is just stated that pupils should ‘read a variety of texts.’ Some teachers may regard four texts per term adequate ‘variety’ while for others variety may mean at least 12-15 texts per term or different genres. There is no reference to purpose of reading, genre type, or the structure of texts. No explicit guidelines on reading instruction are provided – reading is just one among the other language skills. Even guidelines on the time allocated to reading are not specifically stated.

Such a broad and generalised document provides few guidelines for schools or teachers and makes the syllabus open to varying interpretations by them.

- This study looked at reading through a cognitive-linguistic theoretical lens, where different components of reading are recognised, with decoding being a necessary (but not sufficient) skill for RC. However, the curriculum does not reflect a particular view of reading; it does not even highlight the role of reading in school achievement or how reading develops during the early years of schooling. There is no reference to the components of reading, the importance of decoding as an enabler of reading comprehension, the key role of vocabulary or reading comprehension strategies. The syllabus documents do not even mention the transition from Grade 3 upwards where learners enter a new phase – the reading to learn phase where reading becomes a tool for learning across all subject areas, implying that reading comprehension takes centre stage. It seems as if the curriculum is not informed by current reading views or research evidence (Castles et al. 2018).

RQ2 How do Grade 3 and 4 narrative and information texts used in Zimbabwean schools differ in terms of their text and lexical profiles?

The textual and vocabulary analysis of the extracts (using the Flesche Reading Ease and LexTutor) indicated that there were differences between extracts from the information and narrative textbooks. While some of these results reflected expected genre differences between the texts, others showed wide discrepancies.

- In terms of text structure, the narrative texts displayed the typical story elements of setting, characters, problem and resolution, while the information texts used mainly statement/description and example structure. This difference in text structure across the genres is to be expected (Sidek 2012; Akrof et al. 2010; Huang 2008).
- The information texts had longer words and sentences, higher percentages of passives, specialised vocabulary and nominalisations. These are all features that are indicative of more complex language use. In contrast, the narrative text extracts generally had shorter and more familiar words, shorter sentences and negligibly low percentage of passives (except in two Grade 4 passages). Such genre differences in textual features are not unexpected, since content subject texts are information texts that tend to deal with unfamiliar topics while narrative texts deal with familiar stories and vocabulary (Sidek 2012; Akrof et al. 2010; Huang 2008).
- Most information texts had textual features that were several grades higher than the intended grades (ranging from Grade 4.4- Grade 12.4) while the narrative texts were below the intended grades (ranging from Grade 1.4 -Grade 3.8). Generally, the Science texts were several grades higher across the two grades and these texts contained more abstract topics and unfamiliar specialised terminology compared to the other information texts. Content subject texts with lower grade levels dealt with more familiar topics which were less abstract and less scientific (e.g. small livestock farming, causes of soil erosion).
- Grade 4 texts are expected to display a greater range of vocabulary compared to Grade 3 texts since Grade 4 is a higher level. The vocabulary profile analyses carried out showed that the majority of Grade 3 and 4 content subject extracts attained the 95% text coverage (minimum benchmark required to acquire text comprehension) with the inclusion of words within K4/5 and K6/7-word frequency levels respectively, while the narrative texts attained the 95% level within the K1-3 level across the two grades, confirming the FRE findings that the narrative texts had familiar and less complex vocabulary.
- Grade 3 information texts attained the 98% text coverage (optimal required benchmark to attain text comprehension unassisted) within the K4-9 level while the majority of Grade 4 information texts included texts beyond K9 (the low

frequency levels) indicating a wider vocabulary range with words from the less frequent ranges and hence more difficult vocabulary. On the other hand, the Grade 4 narrative texts attained the 98% level within the K4-7 level showing that they had easier and less varied vocabulary compared to information texts.

- The low frequency vocabulary ranged from 0-2.1% among the content subject texts which is within the range which scholars say is acceptable for text comprehension (Dodivig 2005; Nation 1990). As expected, Grade 4 Science texts contained more low frequency words than Grade 3 Science texts though basically the Science texts from both grades had more low frequency vocabulary than the other two subject texts.
- Content subject texts for both grades had relatively few academic words confirming Coxhead's (2011) claim about academic word text coverage, which usually does not exceed 11%, beyond which a text tends to become reader unfriendly. The narrative texts did not have academic vocabulary save for one text with only one academic word.
- The analysis showed that while the content subject texts contained a wider range of vocabulary from different frequency levels which is typical of academic texts, their readability ease was beyond the intended grade levels. On the other hand, the narrative texts contained vocabulary from the high frequency levels and very few if any words from the mid frequency levels, and their readability ease tended to be below the intended grade levels, which probably might be more appropriate for them considering that these are still young ESL readers.

Overall, there was a serious mismatch between the content subject texts' grade levels and the learners' grade levels which disadvantages learners since the texts were several grades higher than their grade levels. The vocabulary profiles of the majority of content subject extracts would pose challenges for ESL readers with low vocabulary levels while the narrative text extracts had vocabulary primarily from the high frequency levels. The narrative texts at Grade 3 level could be appropriate since it helps consolidate learners' knowledge of high frequency words and also support text comprehension. However, by Grade 4 a wider range of words in narrative texts would provide more exposure to the important mid frequency words bearing in mind that this is a critical transition period. Of interest to note is Piper's (2010) observation that it is not uncommon to find that instructional material in most low-income countries is

challenging and ambitious which leads to learners getting frustrated and unable to effectively learn from them. The fact that the information texts appeared to be several grades higher than the intended levels confirms Piper's (2010) observation; the texts were not pitched at the appropriate grade levels. However, when learners have reading challenges like the ones in this study, it does not mean that seemingly easy texts will be easy for such learners; even the narrative texts which were below their grade levels could be challenging for them. What is required is a balance of text factors with instructional factors. Neither too complex vocabulary nor too easy vocabulary is beneficial; ESL learners need teaching methods which pay explicit attention to vocabulary development as well as reading as a medium for vocabulary exposure, consciously assisting them to gradually transition from familiar vocabulary to more complex vocabulary. This implies sound knowledge of both reading and vocabulary teaching methods and a lot of thorough preparation coupled with creativity on the part of the teachers to enable learners to successfully transition to the reading to learn phase where reading is a tool for learning.

RQ3 How do the Grade 3 and 4 learners perform on reading literacy assessments appropriate to their grades in the targeted schools?

- Under RQ3 and its sub research questions the study investigated the performance of Grade 3 and 4 learners in reading literacy assessments (specifically RC and ORF) appropriate to their grades. Generally, the learners' performance in both RC and ORF tests was poor across the two grades though when compared to other data from ESL contexts in Africa (Liswaniso 2021; Pretorius and Spaul 2016; Draper & Spaul 2015) they were much better. However, the Zimbabwean Grade 3 and 4 learners performed poorly compared to Latino ESL learners in USA (Jimerson et al. 2013; Al Otaiba et al. 2009). Because the study was conducted in the second year of the implementation of the new curriculum, this may have affected the findings. The fact that the curriculum was still in its infancy stage as far as implementation was concerned might have negatively affected the teaching and learning processes in the targeted schools.

3a How do the targeted Zimbabwean Grade 3 and 4 learners perform in reading comprehension (RC) and oral reading fluency (ORF) assessments?

- The RC results showed that learners' RC performance was poor (40.7% and 45.9% respectively) across the two grades compared to the acceptable 60%+ (Draper & Spaul 2015). This means that the Grade 3 learners did not understand about 60% of the information in the text while the Grade 4 learners did not understand about 54%. Generally, the results suggest that learners were reading at a basic level, since they answered primarily literal questions whose answers were easy to locate or explicitly stated in the text. (PIRLS 2011). Learners' performance on the literal questions and higher order questions was just as bad though the mean scores for literal questions were slightly higher (26% and 30% respectively) than higher order questions (14.2% and 15.4% respectively) across both grades. Overall the higher order questions were difficult for the majority of learners across the grades (means of 14.2% and 15.4%) and the difference between the grade means was smaller (1.2%) compared to literal questions (4%). As expected, Grade 4 learners had a slightly higher mean for higher order questions compared to the Grade 3s, although performance was still poor. Most learners, even those at the 75th percentile, got most of the higher order questions wrong, although performance was even worse for weak readers at the 25th percentile. The low RC performance compares to other studies in the region (Liswaniso 2021; Draper & Spaul 2015). The poor RC results could reflect poor language, poor decoding and poor comprehension skills.
- In this study I used ORF as an index of basic reading (i.e. decoding) proficiency and the ORF results showed that generally the learners were slow readers across the two grades. Both Grade 3 and 4 learners' reading rates were slow. Their mean performance was similar as far as accuracy (6.6 and 6.1 mean errors respectively per grade) and speed (71.2 and 72.9) were concerned between the two grades. The expected developmental progression of greater accuracy and faster reading rates from Grade 3 to Grade 4 did not obtain. However, it is noteworthy that the good readers (i.e. those at the 75th percentile) across the two grades read more than double the number of words correct per minute compared to the weak readers (those at the 25th percentile). Furthermore, it is only when one disaggregates the results at the 75th percentile that the expected developmental cline/pattern is observed, where the good Grade 4 readers read faster than the good Grade 3 readers. There was very little developmental

difference in reading fluency among average and below average readers in Grades 3 and 4. Generally, in both grades learners with higher ORF scores also performed better on RC, as shown when scores are disaggregated to performance at the 25th, 50th and 75th percentiles.

- However, compared to other L2 learners in Sub Saharan Africa these learners were faring somewhat better. Piper and Zuilkowski's (2015) study with Kenyan students showed that the Grade 2 learners had a mean of 30wcpm while Draper and Spaul's (2015) study with South African Grade 5 learners showed that they read on average 40wcpm. All these findings indicate that generally L2 learners in Sub Sharan Africa have fluency challenges. The slow and inaccurate reading rates suggest a poor decoding foundation in English which needs to be addressed so that effective reading and learning can take place in schools.
- L1 reading norms (Hasbrouck & Tindal 2006) are beyond the reach of L2 readers, especially in the early years of reading development, which makes it inappropriate to use them to determine whether or not L2 readers are on track with their decoding. However, though L1 norms are not applicable to L2 learners, to some extent they show how L2 readers might be performing in relation to L1 readers, since L2 readers are estimated to read about 20-25 words slower than their L1 peers (Jimerson et al. 2013). In this study, using the 50th percentile as a yardstick, both grades were several words (36 and 50wcpm respectively) slower than the average L1 Grade 3 and 4 reader (at 107 and 123wcpm respectively). In fact, the fluency gap was widening in Grade 4. Even the good readers in this study, those at the 75th percentile (96.2 and 103 wcpm respectively) read slower than L1 readers at the 50th percentile across the two grades (107 and 123 wcpm respectively). Generally, the average reading rates in this study were even below the 25th percentile of the L1 reading norms across the two grades.
- The Broward County study (2012) matched L2 readers' English proficiency levels with their reading fluency scores. Compared to Latino L2 readers in the USA (Broward County 2012 benchmarks) the learners in this study did not match the English proficiency levels of the Latino learners who were on remedial programmes. Decoders at the 50th percentile from both grades fell in the Limited English speaker category (A2). Learners at this category can communicate orally with simple phrases making significant grammatical errors which interfere with

understanding. However, according to norms from the Broward County (2012) study, learners at this proficiency level should be able to read on average at 74 wcpm and 80 wcpm respectively. Instead, in this study learners' average ORF scores were 71.2 and 72.9 wcpm respectively. However, considering that the Broward County learners were learners in remedial classes shows that the Zimbabwean Grade 3 and 4 learners in this study had reading challenges since they performed below the Latino students in remedial classes. Though these were learners on remedial programmes the results are comparable because both are ESL contexts though the Latino learners hailed from better learning contexts where systematic phonics instruction was carried out.

- The good readers from both grades fell in the Intermediate English speaker category (B1). In this category learners can communicate with English about everyday situations with little difficulty. However, the learners lack academic language terminology and experience some problems following grade level subject matter assignments. According to norms from the Broward County study, learners at this proficiency level should be able to read at 89 wcpm for Grade 3s at the 50th percentile and 103 wcpm for Grade 4 learners.

The kind of challenges presented at each of the two proficiency levels were similar to the challenges that the learners in this study faced; limited understanding, use of simple and short phrases and grammatical errors which interfere with understanding. Generally, the learners in this study performed more poorly than the Broward County learners ear-marked for remedial programmes, implying that they had reading challenges. However, it is possible that given systematic instruction and appropriate resources, the learners in my study could fare much better.

Kim et al. (2019) assert that many children in low income countries do not develop foundational reading skills even after years of instruction and this was also established by UNESCO (2017) where it was reported that 9 out of 10 children in Sub-Saharan Africa do not have basic reading skills. Basic skills involve recognising letters of the alphabet, word reading, understanding simple sentence and paragraphs and listening with comprehension (Draper & Spaul 2015).

3b How does performance on RC and ORF differ between the Grade 3 and 4 learners in this study?

For this question there were mixed results on RC and ORF performance between the two grades. As mentioned earlier, although RC remained poor across the grades, nonparametric inferential statistics showed there was a significant difference in RC between the two grades. This may have been due to the Grade 4 learners performing slightly better in literal questions on the same passage than their Grade 3 peers.

There was no significant difference in ORF between Grade 3 and 4 learners. There was a lot of ORF variability within the two grades though developmentally more variation is expected across the grades rather than within. The early years, Grades 1-4, are usually when the greatest ORF growth takes place among learners and a difference in growth should be discernible from Grade 3 to Grade 4, but this difference only emerged with readers at the 75th percentile across the grades.

3c What is the relationship between RC and ORF?

The results showed a strong positive correlation between RC and ORF across the grades (.78 and .85 respectively). The better decoders in this study consistently performed better in RC than the weaker decoders. This confirms the relationship between ORF and RC that other studies have established (Liswaniso 2021; Piper et al. 2016; Buck & Torgesen 2003; Cook 2003). The findings in this study support the findings from numerous other studies not only in Western countries but also from the African continent that there is a strong relationship between fluency and comprehension (Liswaniso 2021; Spaul et al. 2020; Piper, Pretorius & Spaul 2016).

- Scholars concur that it is very difficult if not impossible for learners to comprehend a text when they cannot read fluently because fluency is the bridge between decoding and reading comprehension (Rasinski & Nageldinger 2012; Pretorius 2012; Fuchs et al 2001). The SVR model underscores the fact that decoding is necessary for RC to take place, albeit not sufficient, language proficiency is also necessary for RC; the two work in tandem one is not superior to the other (Gough & Tunmer 1986).
- According to the DTH, there is a minimum decoding threshold to be attained, below which RC is not possible (Wang et al 2019). Even if more time is allocated to RC in the timetable, as long as learners' decoding skills are poor no meaningful gains will be attained in RC when learners read on their own (Snow

2010; Wang et al. 2019). Yet these decoding skills should be firmly developed by Grade 3 for successful progression on to Grade 4, failing which learners will continue falling behind, and subsequently affecting all learning areas. What is worrying in this study is the stagnant development of ORF skills in Grade 4. Grade 3 and 4 is a critical transition phase and normally after Grade 3 teachers do not focus on basic reading skills while on the other hand the texts become more complex, requiring higher cognitive skills. However, with poor decoding skills more cognitive effort will be expended on the basic skills (Sparks & Patton 2016; Hogan et al. 2014), leaving little processing memory and attention for RC. C-I emphasises the construction and interaction of the text base and the situation model during RC, where the textbase represents literal information from the text acquired through decoding and the mental model represents background knowledge and experiences which are activated and integrated to the textbase to bring about the situation model during the reading comprehension process (Kintsch 1998). Weak decoding skills will likely compromise meaning construction at the text base, which means the reader can hardly get out of the RC starting blocks, so to speak.

3d How does Grade 3 and 4 learner performance on RC and ORF differ in terms of gender differences within the grades?

- The findings in this study showed a mixed trend for RC: while the results showed a significant gender difference between the Grade 3 boys and girls, there was no significant gender difference among the Grade 4 learners. Generally, research has shown that girls outperform boys in almost all measures of reading literacy (Mullis et al. 2017 Price-Mohr 7 Price 2017; Cekiso 2016; Saito 2010; Marks 2008). A number of studies in Africa show gender differences in reading literacy across grades with girls outperforming boys. Saito's (2004) SACMEQ report showed some gender differences among Grade 6 learners whose countries participated in the programme, but not consistently. For example, the Grade 6 girls from Botswana, Mauritius, Seychelles and South Africa outperformed the boys while in Tanzania boys outperformed girls, and there were no differences in other countries (Botswana, Namibia, Uganda). Scholars concur that these gender differences are attributed to a number of factors which

include attitude towards reading and also that girls tend to engage themselves more in reading than boys (Cekiso 2016; Logan & Johnston 2009; Sainsburry & Schagen 2004).

- Like the RC results, the ORF results also showed mixed gender findings, with a significant difference in ORF among the Grade 3 boys and girls; Grade 3 girls read significantly more accurately and fluently than boys. However, this gender gap disappeared in Grade 4, which showed no significant gender difference among Grade 4 boys and girls. Although there seem to be fewer studies which show a mixed trend, they do provide interesting findings, for example Memisevic, Malec and Biscevic's (2019) study with Grade 2 and 3 learners on ORF in Bosnia which showed significant gender differences occurring with later grades (rather than earlier grades, as in my study). In their study there was a significant difference between Grade 3 boys and girls but not among Grade 2 learners. Clearly further research is required to probe more deeply into instructional contexts that may cause a levelling off of gender differences in reading development.

3e How does Grade 3 and 4 learner performance on RC differ in terms of age differences?

- The findings relating to age differences within grades were mixed. There were no differences in RC performance between grade age learners and the slightly younger learners among the Grade 3 learners (under 8 and 8 years old). The difference only occurred with above grade age learners (9 years and older) who performed significantly worse than their grade age peers.
- The RC age group results for Grade 4 learners showed that there was no significant difference across the age groups within the grade. There was no significant difference between the under 9 and 9-years age group (Grade 4 appropriate age), neither was there a significant difference between the grade age learners (9-year-olds) and the older learners (10-years and older age group). However, not unsurprisingly, there was a significant difference between the age extremes (i.e. the under 9s and the 10-years and older age group).

For both grades the younger learners (those younger than their grade age) significantly outperformed the older age groups (learners older than their grade age). The study

shows that the older than grade age learners performed worst. While it generally holds true that, developmentally, learning improves by maturation, these findings indicate that the above grade age learners in each grade performed worst. It could be because the older learners might have repeated grades due to learning difficulties or enrolled later due to a number of factors which might include SES factors. There are studies which show that late school enrolment for ‘normal’ learners negatively affects children’s cognitive ability, especially in developing countries because there is little cognitive activation during the time learners are not in school because the environment is not conducive (Wils 2004; Uganda Bureau of statistics and ORC Macro 2002). Chui (2016) asserts that this is because late school entry renders schooling more difficult and less attractive to late school starters.

3f Are there significant differences in RC and ORF between the four schools in the study?

- The findings on school performance showed that some schools outperformed other schools. School D significantly outperformed the other schools in RC and ORF. School C’s performance was somewhere between School D on the one hand and Schools A and B on the other hand. The Grade 3 learners in School C performed more like Schools A and B, while Grade 4C in School C performed more like School D. A study by Amunavi (2015) in Kenya’s Hamisi County showed that better resourced schools performed better than their counterparts. Also, Taylor’s (2010) analysis of SACMEQ 11 data showed that from the participating schools, private schools which are normally better resourced performed better than public schools which are generally poorly resourced.

3g How is writing developed to support reading literacy in the Grade 3 and 4 learners?

- Based on the FRE results, the learners’ compositions showed that the language in the compositions was straightforward and simple, equivalent to the language level and RE of Grade 1 texts. The RC results also showed that most learners across the schools got the literal questions correct and such questions normally require simple and straightforward answers.

- There seemed to be a relationship between reading and writing: good readers wrote better compositions while the poor readers produced poorer compositions across the grades, some of which were unintelligible.
- The vocabulary profiles showed that high frequency vocabulary was dominant in the compositions, with insignificant contributions from the mid and low word frequency levels for both grades. This suggests that the learners' active vocabulary repertoire did not readily extend beyond the 2 000 most frequent words. Sibanda's (2014) study with South African learners showed that the Grade 4 learners' vocabulary levels were low which adversely affects the transition from learning to read to reading to learn phase. Pretorius and Stoffelsma's (2017) study also showed even after a year, vocabulary levels for ESL learners were low. Although the slow ORF, especially at the 25th and 50th percentiles, played a role in RC the limited vocabulary of the learners in my study is indirect evidence that poor vocabulary could also be contributing to poor RC. Maybe their poor writing was a result of the learners' lack of practise in reading varied texts as already established. More exposure to reading varied texts helps learners build their vocabularies and improve their writing skills.

RQ4 What do the selected primary schools do to orientate children to reading literacy and academic literacy in L2?

Research question 4 and its sub questions focused on literacy practices carried out in the targeted schools as well as teachers' and principals' perceptions of the teaching and learning of reading literacy derived from classroom observations and interviews.

4a How do classroom resources support reading literacy development in the selected schools?

- Basically, all the eight classes had inadequate teaching and learning resources, though some schools (C and D) were better resourced than others.
- The recommended textbooks were in short supply and yet these are essential during RC lessons so that learners physically interact with the textbooks. Sharing of textbooks was common in all the schools with some learners sharing three pupils per textbook. This meant that learners were not allowed to take textbooks home for reading homework or for reading practice.

- Besides the recommended textbooks most of the classrooms did not have library corners or any other reading resources, yet reading thrives on practice with a variety of texts that are readily available (Chia-Hui 2001). There was nothing to show that books and reading are valued.
- The classrooms were partially print rich as shown by the charts displayed on the walls and the library books that were in some classes (B4, C3, C4, D3, D4). However, from the lesson observations it emerged that the charts served more of a decorative wall paper function rather than used to support the teaching and learning of reading literacy. Although flashcards were used, they were not used optimally, and no other print resources were used during lessons. No vocabulary notebooks and no word walls for vocabulary development were evident.
- Blackboards/whiteboards were readily available in all the classrooms but most of them were underutilised. Blackboards/whiteboards can serve as a very good tool for reading literacy instruction. TC4 was the only one who used the board to draw a mind map on it. The majority of teachers only wrote the title of the text, new words and/or RC questions and yet more could be done using the boards (brainstorming, word structures, text structure, reading comprehension strategies, word games etc).

4b How do teachers carry out their reading comprehension lessons in the selected schools?

- From the lesson observations and teacher interviews I found that all the teachers delivered their reading comprehension lessons in almost the same way. I am not sure whether it was because they knew I would be observing them or whether this was their usual practice, but the uniformity in lesson delivery suggests that this is how they are expected to present the hour-long RC lesson.
- They generally started with prereading activities, where either the topic was mentioned or words on flashcards were produced, and then learners took turns to read the passage of the day in a round robin way, followed by an oral teacher led question and answer session and lastly individual written work was done. Uniformity of delivery in compliance to a curriculum is in principle desirable in a country's education system but when it does not bear good results then something is possibly amiss with the teachers' content knowledge or their

instructional methods and/or with the curriculum itself. The content analysis of the syllabus documents showed them to be shallow and did not provide clear guidance on RC, nor did they reflect explicit instructional approaches to fluency, vocabulary or RC, while the teachers also showed lack of content and pedagogic knowledge on reading literacy.

- Round robin reading did not seem to help the learners much. There may be several contributory reasons for this. Teachers seemed to pick those learners who read better than others. During the reading process teachers seemed to concentrate more on pronunciation and word recognition with no attention given to fluency per se. The teachers did not show awareness of what fluency entails, what foundational skills support it, neither did they seem aware of the role that fluency plays in reading. Knowing about the different components of reading literacy influences how teachers prepare and deliver their lessons (Pretorius & Klapwijk 2016; DeStafano 2012). During lesson observations few teachers modelled fluent reading for their classes and only a few learners read in class. If learners were given the opportunity to read in pairs, small groups or given reading homework they would have more exposure and practice since fluency improves by practice and repeated exposure to texts. Explicit instruction in fluency also helps raise learners' awareness of it so that they can pay attention to improving it.
- Teacher-led question and answer sessions can be a useful tool in the RC lesson but the teachers' questions in this study were generally cognitively undemanding. The questions did not make learners engage more deeply with the texts which would help them understand texts better. Cazden (2001) asserts that the traditional approach to reading comprehension (read text and answer questions) impedes learner engagement and exploration in the reading classroom and yet that was what transpired in the classes in this study. The question and answer sessions were not real discussions though they can be a powerful way of getting learners to think more deeply, especially when dealing with younger learners (8-9/10-year olds) who do not necessarily have the text base or general knowledge insights on their own. Quality discussions have been shown to play a role in developing learners' thinking skills, higher order comprehension and vocabulary, especially for children from disadvantaged

backgrounds (Snow 2014). Noteworthy is the fact that that kind of teaching approach (read text and answer questions) is typical of low and medium-income countries because it is considered economical (Nag et al. 2016).

- As in the case of fluency and vocabulary, there was no explicit instruction with regard to reading comprehension strategies. There was no explicit attention drawn to where in the text one finds answers and whether they are literal (*I can put my finger on the answer*) or inferred (*it's somewhere here*) or whether we find answers to the same question in different parts of the text (e.g. in different parts of the paragraph or across different parts etc). Such strategies can be employed before, during and after reading a text so learners can 'flow' together with the text right from the beginning. Scholars concur that the most effective reading comprehension instruction is one which explicitly teaches learners strategies that prompt them to monitor, predict, reflect and summarise among others, before, during and after reading (Harris & Graham 2015; Duke & Pearson 2002). This suggests that the teachers lacked adequate pedagogic knowledge. If teachers had sufficient pedagogic knowledge they would know about such strategies, how to teach them and how to use them when teaching reading comprehension and also when dealing with learners with different individual needs, rather than apply one teaching method as if the learners were a homogenous group.
- The vocabulary activities that the classes engaged in were more of introductory tasks to the reading lessons. There was no explicit vocabulary instruction in any of the classes, and the uniformity that was seen in the reading lessons in general also existed in the vocabulary tasks. New words were written on flashcards or the chalkboard and learners were asked to read them aloud and then try to provide meanings which was mostly out of context and nothing more was done, except in one class where synonyms and antonyms were also looked at. The teachers seemed to focus more on pronunciation than vocabulary development. Only two classes had vocabulary notebooks and only in one class were they made use of during the lesson. There were no word walls in the classrooms to display new words learned during the week. Word walls help learners revise the new words daily through games or little quizzes etc that also involves exposure

and talking about the words, their forms, meanings and connotations. Repeated exposure to new words helps build learners' vocabulary knowledge.

- Learners were regularly given written tasks as stated in the syllabus (where they were supposed to write an English piece of work daily). However, there was a lot of superficial compliance in that respect. Despite the learners' numerous written tasks, performance remained poor in the classroom reading comprehension tasks, written compositions and the reading assessments, suggesting that the classroom practices were not effectual, and teachers seemed not to use learner performance to reflect critically on their practices to inform their teaching; teachers were doing it, but not doing it right (Pretorius & Klapwijk 2016). Also, the teachers did not seem to realise that what they were doing was not really empowering learners and that there were possibly other ways to improve RC.

4c How do teachers and principals perceive the role of reading literacy in the selected schools?

- Both the teachers and principals acknowledged that reading literacy played a critical role in the teaching and learning process, however there was a mismatch between what they said and what they actually did in class. They seemed to pay lip service to this idea, while most of them showed that they themselves did not take time to embark on reading or even to mobilise reading resources and create time for their learners to engage in reading activities. Generally, the principals also seemed to lack the requisite knowledge of reading literacy since they seemed to endorse how their teachers were carrying out their reading lessons, except HC3 principal. School leadership should have a strong influence on what happens in the classrooms, for example HC3 principal made his school adopt the first morning hour for individual reading and it was enforced. However, the school did not really benefit from the one hour of individual reading as reflected in the quantitative results. The whole language approach of immersing children in storybook reading is effective when learners are fairly fluent readers and there are lots of different books available to read. In this context, maybe if the one hour was used to build up the poor decoding and fluency skills of learners it would yield more tangible improvement of basic reading skills. Literacy

leadership should be informed by current evidence-based approaches to reading instruction.

- During their reading lessons the majority of teachers did not model good reading to their classes even though children can learn by observing and imitating skilled readers. Also, the majority of teachers said they did not engage in personal reading activities in the presence of their classes, so practices which could serve as role models and promote reading literacy development among learners did not occur.
- Two schools in the study did not have library facilities/corners and the principals and teachers seemed helpless about it. They did not initiate ways of mobilising the reading resources even at classroom level, except for one of the teachers who was trying to create a library corner for her class. Even their lack of reference texts and overdependence on the recommended textbooks suggests a lack of resourcefulness or pedagogic apathy. What they said about reading literacy did not match what happened in their classrooms.

RQ5 *What socioeconomic and classroom related challenges do Zimbabwean Grade 3 and 4 teachers and learners face during the early development of reading literacy in L2?*

Based on what the teachers and principals identified as challenges and also what I observed during classroom and lesson observations, I categorised the challenges as structural, socioeconomic and parental factors.

- The structural factors included shortage of resources, large class sizes, inadequate infrastructure, and inadequate time allocated to reading literacy instruction. Scholars have written extensively about the shortage of reading material, inadequate infrastructure and class sizes in developing country educational contexts and their detrimental effects on learning (Kim et al. 2019, Sebagwa & De Cupis 2018; ILO 2016; Willis, Reuter, Gaudie, Hessert & Sewall 2014; Moyo et al. 2012). These are all related to socioeconomic factors but are also affected by school effects such as governance and management issues at each school. All the teachers complained about large classes and anyone who has taught knows that such classes can be more tiring and challenging to teach. Although research shows that class size can have a detrimental effect on

teaching/learning, in this study it did not seem to be a determining factor for reading performance, since the classes that performed better in reading were large classes (4C-50; 3D-51; 4D-54). In fact, School D outperformed the other schools and yet it had the largest classes (51 and 54), while the classes with small number of learners (3A-46; 3B-43; 4A-45; 4B-38) had poor reading outcomes. This is not to say that large classes are not problematic. Scholars concur that multiple factors come into play as far as learner performance is concerned (Habulezi, Batsalelwang & Malatsi 2017; Onwu & Stoffels 2005). It could be that some teachers are better organised and manage their large classes better than others, thus producing better results. Other factors like access to library material, time spent on reading, school leadership and SES may have contributed towards the slightly better performance in the larger classes. Factors in some of the small classes could have contributed towards the low performance, such as hot seating, lack of library material, being situated in a poor community and poor teaching (e.g. Teacher 3B who taught in Shona for the greater part of the lesson). Of course, smaller classes with good teachers and better learning conditions could do very well (Imoke 2006; Hattie 2005). Even though the teachers in School D produced better readers, reading outcome might be higher in School D if the teachers had classes of 40 rather than 50 learners. Large classes can of course be a challenge and are a reality in developing countries, but it has been shown that with resources and efficient teaching approaches children in large classes need not necessarily be doomed to poor performance; in fact, it is not about class size only but a range of factors (Habulezi et al. 2017; Onwu & Stoffels 2005).

- The teachers and principals also raised socioeconomic factors like unemployment and the economic meltdown being experienced in Zimbabwe as issues which make it difficult for most parents to pay school fees, provide school requirements for their children as well as food so they could learn properly. These are very real issues that stakeholders in this education context have to deal with on a daily basis.
- Another factor had to do with certain parental attitudes towards reading literacy which did not promote the development of reading literacy among learners. Some parents did not or could not provide moral and material support and were

not cooperative with the teachers and school authorities in helping their children. They did not assist with homework or participate in their children's school activities, actions which negatively affect reading literacy development. As already alluded to, these challenges are typical of most developing countries (and indeed also occur in more affluent countries) and can adversely affect the teaching and learning of reading literacy in schools.

In the first chapter of this thesis I highlighted four different scenarios that exist in African/developing countries' educational contexts namely: A - a bad start at the beginning of primary schooling but some learners will defy the odds and do well in school; B - there could be an adequate beginning but teachers then fail to assist learners transition to higher levels; C - a scenario where schooling starts well at both the foundation and upper primary but deteriorates in high school; D - the last scenario where schooling starts slowly in primary school but learners then gradually catch up in the course of schooling. The findings in this study suggest that generally most learners fall within scenario A, where most learners have a low and slow despite some learners managing to read fairly adequately. The slow progress in fluency and comprehension from Grade 3 to 4 witnessed in this study suggests that struggling readers remain struggling readers (and most of them were struggling readers), unless there is specific instruction that can shift their reading trajectories to a higher level. Nevertheless, there are a small number of learners who despite the odds develop adequate reading levels for their grade age and proceed smoothly with their studies.

7.3 Implications of the study for policy and teaching and learning

In this section I discuss the implications of the findings in relation to policy and the teaching and learning of reading literacy in the primary school. By 'implications' I refer to possible effects or consequences that a research outcome or finding can have, in this case within the education system. My focus here is on policy, reading literacy instruction and development, and teacher education. Although the findings from this study might reflect general performance, however, it should be noted that due to the small sample size which was drawn from only one district out of the several districts in Zimbabwe the implications of the study cannot reliably be generalised to the entire Zimbabwean literacy learning context.

7.3.1 The Zimbabwean Grade 3 and 4 syllabus documents

A syllabus typically provides teachers with specific stipulations on learning areas, in this case reading literacy. It is also expected to keep abreast with current understandings of the content subjects and pedagogical research findings. The analysis of the current policy documents showed that the syllabus documents do not have a strong focus on reading literacy and are informed by a general Language Arts approach. Reading is not accorded any prominent place in either of the two documents. The documents in question refer to reading in the aims and outcomes but nothing is mentioned about what reading entails (phonics, decoding, fluency, vocabulary and comprehension or the essential components of reading referred to as ‘the big five’ in the NRP 2000). Such vagueness can in itself lead to various interpretations of policy documents by teachers, even though in this study there was a lot of uniformity among teachers. When syllabus documents are not clear, reading instruction becomes compromised on issues such as what, why and how should teachers teach, how should they assess learners, what and why should they assess and at what stage in the learning process should they assess. Also, what indicators can guide them in assessing whether their learners are on track or not. None of these issues are stipulated or even implied in the syllabus documents. Curriculum silence could be taken to mean lack of knowledge on reading literacy content and pedagogic issues by curriculum developers/designers. Hoadley et al. (2010) assert that a good quality curriculum should be clear and explicit in its stipulations. Clarity and explicitness help to prevent different interpretations or misinterpretations by the curriculum implementers (teachers). A good curriculum keeps abreast with content and pedagogic trends and is regularly reviewed, failure of which the teaching and learning process is grossly affected.

There is also very little on the developmental, cumulative nature of reading in the syllabus documents, how reading develops over time. The cumulative nature of reading means that early skills are an important foundation on which more complex skills build and also that text complexity increases according to grade level. The results in this study showed that the basic skills were not well developed and as a result, learners struggled with reading comprehension as a higher-level skill. Learners who lack smooth progression in the development of reading literacy skills are bound to fall behind as they continue with their studies. However, the Grade 4 syllabus documents do not even refer to text complexity and much of the recommended work is almost the same in the

two documents save for few variations. The implication of such an information gap is that teachers are seemingly oblivious of the role of foundational skills, assuming that the basic skills are taught at the elementary stage and only the foundation phase teachers are the ones responsible for that. Such a misconception is generally prevalent among teachers; most teachers do not believe that every teacher is a reading teacher especially those in upper primary and secondary school levels. Furthermore, no assessment of reading is done, so reading problems and slow reading progression are not identified and remediated. As a result, learners continue with their studies despite their reading challenges, which at times results in some learners losing interest in school and dropping out.

There is no shared vision about what learners should be capable of at different stages in literacy development. Currently the Zimbabwean primary education system does not have any provision for reading literacy benchmarks; the documents do not provide the minimum expectations/benchmarks on decoding or fluency or provide broad guidelines on vocabulary development, which makes the teaching of reading at specified grade levels quite problematic and questionable. The availability of benchmarks helps in guiding the teachers' instructional methods as well as the assessment of reading literacy. There is no normative framework to help teachers determine whether their learners are on track or have fallen behind and if they have fallen behind, how wide the gap is to catch up. There is no information about what good reading in ESL looks like at Grade 1 or Grade 3 or any other stage, nothing about vocabulary knowledge or comprehension levels. Maybe that is why teachers only ask learners to read and answer cognitively undemanding questions and nothing more in their RC lessons.

A vague and unspecified language and literacy syllabus has important implications for teacher training. In fact, teachers and schools end up doing reading literacy instead of teaching it. Teachers need knowledge of the subjects they teach as well as instruments that allow them to regularly check their learners' performance and identify the skills which need instructional attention (DeStafano 2012). However, the Zimbabwean Grade 3 and 4 English syllabus documents do not have such provisions.

7.3.2 Recommended textbooks

Research has shown that material which is far beyond learners' grade level stifles their zeal to read, affects their ability to understand content, broaden knowledge and to learn

from texts. In the end learners then play the avoidance game which affects their performance since reading is a catalyst to effective learning (Piper 2010). In this study the textbook analysis showed that the information texts were not appropriate for the learners' intended grade levels which by implication meant that they were difficult. The learners in question are ESL learners who need more support to be able to access information from the recommended texts rather than giving them unrealistically challenging texts; this creates additional burdens for learners who are already disadvantaged. The texts lacked that gradual transition from easier narrative texts to more complex information texts. Instead of the texts supporting learning they become a barrier which the majority of learners might find difficult to conquer, resulting in learners getting frustrated and giving up on learning. To compound the situation, there was little evidence from the classroom observations of teachers paying attention to textual features of the genres that the children were reading (text purpose, text structure, visuals, author intention, etc), pointing to inadequacies in teacher training and how to help learners 'read to learn.' All this lead to poor reading performance.

7.3.3 Classroom practices

From the classroom observation and interview findings it seemed that all the teachers dutifully followed the syllabus but the assessment results showed that most learners in the study had poor fluency and poor RC. Despite the uniformity in the teachers' approach to teaching reading literacy, the results were poor, which implies that the instructional methods were not paying off. No matter how well teachers comply with the requirements, without the requisite content and pedagogic knowledge nothing much will change. Pretorius and Klapwijk (2016) raise questions about whether teachers are 'getting it, and getting it right' (i.e. understanding what reading entails, and teaching it appropriately) as far as reading comprehension instruction is concerned in the South African context and I believe this also applies in the Zimbabwean context. As long as the syllabus and the teachers are not 'getting it', then 'getting it right' remains a challenge, and learners will continue struggling with reading literacy.

The learners' poor ORF suggest that they had challenges with basic reading skills and yet by Grade 3 even L2 learners should be reading grade level texts relatively fluently in order for them to transition to the reading to learn level (Lesaux 2013; Espinosa 2010). Both the SVR and the DTH emphasise the importance of decoding in successful

reading comprehension. However, in this context it seems as if the teachers were not aware of their learners' decoding challenges. This could be due to the silence in the syllabus documents on this matter, and the lack of benchmarks for reading development at specific stages of learning. The teachers themselves seemed to lack knowledge of what reading entails and how it develops and this showed in their teaching. When learners have decoding challenges, it means their performance in reading comprehension and other subject areas is compromised, which leads to low grades, low self-esteem and even dropping out of school thereby affecting their career opportunities. It takes a clear, up-dated curriculum and knowledgeable teachers to show awareness of their learners' reading trajectories and to identify and rescue struggling readers from falling further behind. The gaps in the curriculum together with inadequate content and pedagogic knowledge on the part of the teachers are, I believe, major contributors to the poor performance of the learners in this study.

The poor reading comprehension performance also points to inadequate instruction in RC. Reading comprehension is a cognitive skill and learners benefit when explicitly taught comprehension strategies (applying background knowledge, predicting, questioning, identifying, summarising, visualisation) and text structure but the teachers in the study seemed to lack knowledge of all this. The findings showed that teachers seemed to overly concentrate on reading the text and answering questions during RC lessons. Asking learners to read without modelling the thinking processes we engage during skilled reading, attending to the purpose of reading as well as explicitly teaching reading skills and strategies does not make learners fluent or enable them to answer comprehension questions no matter how regularly 'doing reading' is done. The teachers did not engage higher order comprehension skills and strategies like inferencing, integrating and evaluation, background knowledge, predicting, summarising during their teaching. The skills and strategies should be explicitly taught and not just referred to in passing since learners do not automatically acquire them. This could be a result of their training since none of them referred to reading comprehension strategies, implying that they did not know about them. So, despite the teachers dutifully following the syllabus and conducting their reading lessons in uniform ways, gaps in the syllabus and in teacher training will ensure that learners continue experiencing challenges with reading comprehension across all the subjects of the curriculum. When appropriate

content and pedagogic knowledge is combined with diligence and hard work in the classroom, good results are sure to be achieved.

7.3.4 Teacher education

The similar way in which the teachers in this study carried out their reading comprehension lessons suggests that the source of this uniformity could be their training backgrounds or how they themselves were taught during their school years. Both the long serving members and newly qualified teachers used the same largely traditional and outdated methods which were not effective. This means that the teacher training curriculum is out-dated and lacks critical review. As a result, nothing much will change in classroom instruction or learner performance as long as current status quo of the training institutions and their curriculum remain unchanged. For teachers to be effective they have to be knowledgeable about what reading literacy entails, how to teach it and also be skilled readers themselves (Castles et al. 2018; Pretorius & Klapwijk 2016; Buckingham et al. 2014) or else reading literacy and learning will continue to suffer.

7.4 Recommendations

The recommendations in this section pertain to four areas: syllabus documents, classroom practices related to reading literacy, teacher training, and resources which help enhance the development of reading literacy among learners.

The syllabus documents

- Given the shortcomings of the syllabus, there is a need to reconsider the reading literacy content in the syllabus document by the CDU, making use of reading experts and even learning from neighbouring countries that have updated their curriculum in response to poor literacy performance, such as South Africa. The South African curriculum is quite detailed on the content, methods and expectations on critical issues like decoding and reading comprehension. Detailed guidelines should be included so that teachers who are the curriculum implementers know what reading entails, how to teach the different components and integrate them, how to use and manage resources and how to assess reading progress.

- In Zimbabwe learners are introduced to English from preschool though the way in which it is implemented leaves much to be desired. Given the importance of home language and literacy development – in its own right as well as a basis for L2 literacy development – a stronger bilingual model of literacy is recommended for the curriculum. Developing countries should take note of the fact that a strong L1 foundation is critical for reading literacy development as well as additional language development. However, this is a highly contentious topic in developing countries because the former colonial languages are associated with economic benefit and higher social status, so parents do not support policies which advance the learning and development of indigenous languages. A bilingual model of education does not exclude learners from gaining access to an international lingua franca like English and indeed helps to strengthen their proficiency in it.

Classroom practices

- There is need for a serious review and revamping of reading instructional approaches. The lesson observations and interviews showed that the teachers did not explicitly teach any aspect of reading (fluency, vocabulary or comprehension). Francis, Rivera, Leaux, Kieffer & Rivera (2006) assert that reading instruction must equip learners with strategies and knowledge to comprehend and analyse challenging narrative and expository texts.
- In Zimbabwe there is no standardised assessment of reading during the first seven years of schooling except for informal class activities and tests (end of term/midyear/end of year) at school level. The country does not even participate in international literacy assessments like PIRLS, and it only participated twice in the SACMEQ (2001 and 2007) tests then stopped. Under such circumstances it is difficult to determine the learners' performance in relation to international trends. Though the country does not participate in international literacy programmes it is recommended that assessment of developmental milestones in reading at different grade levels be locally carried out, especially at important transition points. For example, decoding skills (e.g. letter-sound knowledge, word recognition) at the end of Grade 1 in order to monitor learner progress in general and to identify at-risk learners and remediate them early. ORF

assessments done internally by teachers can also help them monitor learners' reading accuracy and speed so that fluency is established, which encourages reading for pleasure and helps prepare learners for the reading to learn stage. The provision of assessment tools which are quick and easy to use, together with guidelines which help teachers interpret results, monitor progress, identify struggling readers as well as what to do in case learners fail to meet the milestones is also very necessary. Francis et al. (2006) argue that teachers should assess learners so that they are able to identify the specific source of difficulty and the appropriate corresponding instructional approach to rescue the struggling learners. Without assessment it is difficult to effectively assist struggling learners.

Teacher training

- The lesson observations and interviews highlighted reading literacy content and pedagogic knowledge deficiencies among the teachers who participated in the study. The results showed that even though the teachers were dutiful and regularly gave written work to learners, policy documents do not provide minimum expectations/benchmarks on decoding, fluency, vocabulary or RC development which renders the teaching of reading at the specified levels quite laissez-faire. There is no normative framework to help teachers determine whether their learners are on track or have fallen behind and if they have fallen behind, how wide the gap is to catch up. The availability of benchmarks helps in guiding the teachers' instructional methods as well as the assessment of reading literacy.
- There is need to ensure that primary school teacher training institutions enhance teacher knowledge about reading and incorporate and emphasise explicit, evidence-based reading literacy instruction since the study showed that teachers lacked adequate knowledge of reading literacy per se as well as reading literacy instruction methodology. Given the importance of reading in schooling, reading literacy content and instruction should form a compulsory part of the curriculum for foundation phase teachers so as to equip student teachers with the requisite knowledge for teaching reading in the 21st century. For example, Funda Wande, an NGO in South Africa that focuses on reading instruction in African

languages and ESL reading has developed 12 modules for foundation phase teachers (available in – and adapted to – English, Afrikaans, isiXhosa, Sepedi and isiZulu) to help them acquire more content knowledge on reading and instructional approaches informed by research evidence. Kim et al. (2016) assert that there is need for rigorous training to change teachers’ attitudes, knowledge and instructional practices in order to improve learners’ literacy achievements.

- In-service reading instruction training and regular workshops for those already in the teaching field should be provided, with special attention given to foundation phase teachers since they are the ones responsible for foundational reading literacy development. Upper primary teachers should also be included in ongoing professional development since they also are reading teachers. Their courses should include material with more advanced comprehension skills, vocabulary development and academic literacy. All school staff including the administrators (principal, deputy principal and teachers-in-charge) in primary schools should participate in the workshops and training programmes so that there is a shared vision from top to bottom, within and across schools, on reading literacy development. This will upskill educators and bring them up to date with current knowledge about reading and help fight the misconception that foundation teachers are the only ones responsible for the teaching of reading.

Reading literacy resources

- Resources play a key role in the teaching and learning of reading literacy in schools. Even if learners come from families which cannot provide reading resources, well-resourced schools can help close that gap. The Ministry of Primary and Secondary Education through the CDU should provide reading resources, such as graded readers for L1 and ESL as well as storybooks for classroom libraries. which help in the interpretation of the syllabus document as well as some teaching guides on how to use the resources. Such materials help equip reading teachers because if they are trained or attend workshops but fail to access relevant supporting material it will be a half-done job. Reading literacy instruction requires material support for both teachers and learners. However, the teachers should be trained on how to use the resources because resources

can be availed and yet end up as white elephants without being effectively used. As noted during my observations, print resources in the classroom were not adequately integrated into lessons, which suggests that teacher training institutions need to focus on the use of resources. Francis et al. (2006) argue that the texts should match the reader characteristics failure of which the reading activities would not benefit the intended learners. Therefore, the Ministry is called upon to allocate more resources to the purchase of reading material in schools, possibly by partnering with the private sector and the donor community. The resource mobilisation should involve a number of stakeholders; the government, donor community, schools and families. There should be national, regional, district, school and class libraries so that reading material can be readily available within the reach of the majority of learners. Communities should also participate in the resource mobilisation campaigns through the School Development Committees which are made up of parents/guardian representatives.

7.5 Limitations of the study

Like any study this study suffered from a number of limitations, both situational and methodological. In this section I spell out the limitations which impacted on my study.

My study was carried out in four schools within the same district and that was meant to make sure that I would be able to work within the small budget that I had for the research activities. The fact that it was a relatively small-scale study (373 learners and 8 teachers and 4 principals) calls for caution in generalising the findings to the wider population.

This was not a longitudinal study; the data was collected only once from the schools that participated. Although the study provides useful cross-sectional data on Grade 3 and 4 reading abilities, in order to examine growth in ORF and RC performance over time – and subtle shifts in their relationship – there is a need to assess the same learners' performance at successive points in time, such as at the beginning of the year as well as at the end of the school year, as well as performance in successive grades. Carrying out a number of lesson observations over time in order to observe teacher practices and

the development of reading literacy skills among learners would have enhanced the study.

The research specifically focused on fluency and reading comprehension; I did not assess, at Grade 3 and 4 level, other foundational skills like letter-sound knowledge, word recognition, vocabulary and listening comprehension (the latter two as indices of language proficiency). However, including such foundational assessments could also have helped identify why some children had poor ORF and/or reading comprehension, especially those learners who were performing at the 25th percentile.

Only a narrative text was included in the RC component, despite the fact that from Grade 3 onwards, learners are also exposed to information texts since they are transitioning to the reading to learn phase. Although reading performance was poor in the easier genre of narrative texts, the use of both narrative and information texts in RC assessment would have helped compare learners' performance in both genres and highlighted specific challenges in each genre.

As in many qualitative studies, this study may also have been affected by Hawthorne and social desirability effects as far as lesson observations and interviews were concerned. Since I arranged an appointment for lesson observations with the teachers in advance, they had the opportunity to prepare for my visit so that the lessons would present a good picture to the researcher. Even the responses that were given during interviews with teachers and school principals may have been meant to impress the researcher or reflect favourably on the interviewee rather than reflect the actual situation. However, more lesson observations would have enhanced data triangulation and helped to 'balance out' some of these issues.

During data collection, the school principals and teachers did not allow me to record the interviews, which made it more challenging to capture the data quickly and accurately during the interview process. They preferred that I manually write on paper what they were saying. Maybe they thought that the recordings could end up being used for malicious purposes, despite the fact that I had assured them that everything was going to be treated as highly confidential.

Taking pictures during lesson observations was not welcomed by the majority of teachers, even though they allowed me to videotape their lessons. Some did not want even their teaching material to be photographed. Maybe they felt that it would lead to

public scrutiny of their work. They did not trust the confidentiality aspect of the research process even after I showed them my ethics clearance form. A few allowed me to just take a limited number of pictures and others prescribed the areas that I was to focus on.

Carrying out good quality research was a learning curve for me, and looking back there are things that I feel could have been done differently. For example, I later discovered a learner who could not write intelligible work after I had already finished collecting data. Had I deeply engaged with the data during the data collection process I could have followed up on this with the teacher and the principal to better understand how a learner can be in school for 3 years and still be illiterate, and how the school deals with such a situation.

7.6 Suggestions for further study

There is a serious dearth of research driven literature on reading literacy development in general in Zimbabwe, and specifically in the early stages of learning, which means there are a lot of possible research areas. At primary level Chinoona and Chitiga's (2011) study on Grade 6 pupils was on their English reading achievement levels, Brown's (2014) study on Grade 2 and 3 learners focused on basic skills in English and Shona, (§1.2.1) and at secondary school level Moyana (1991), Pfukwa (1994) and Gumede and Boakye (2020) looked at reading comprehension. This study focused on ORF and RC among Grade 3 and 4 learners and the literature review and research process highlighted a number of areas which need further research on reading literacy in Zimbabwe. There is need for well-designed literacy research (Biesman-Simons et al. 2020) - poorly designed and executed research is not reliable or useful and can be misleading. In this section I refer to those areas that are directly linked to my research findings and the areas are categorised into large scale systemic research and individual small-scale research.

Suggestions for large scale systemic research

- It is important from a systemic point of view to undertake large scale L1 and ESL reading studies which include representative samples from both rural and urban schools from all the provinces of the country to gain a more widespread view of the reading situation in the country. Large-scale studies help monitor

how the education system is doing nation-wide in teaching reading and can provide schools and teachers with useful feedback.

- There is a need to establish L1 and ESL ORF benchmarks starting with letter-sound-knowledge (LSK) at Grade 1 level so as to determine the learners' decoding skills which are a strong predictor of reading literacy development in later years of schooling. The establishment of such benchmarks relies on reliable empirical evidence from large scale studies or the accumulation of data from smaller studies into a data bank built up over the years and across the grades. Assessing decoding in the early stages of reading development helps to identify learners at risk of reading and remediate them. Reading problems do not go away on their own so it is important to remediate struggling readers as early as possible before the problems become entrenched.
- A large-scale study from which to derive ORF benchmarks for both L1 and ESL could be carried out at Grade 3 and 4 levels to assist teachers in their teaching and assessment of reading literacy during this transition stage, considering how critical it is. Currently there is nothing that teachers can refer to and this affects reading literacy instruction and assessment. The reason why I advocate for the need for L1 reading research is because there is a large body of research which shows how L1 literacy development supports L2 literacy development (Cardens-Hagan, Carlson & Pollard-Durodola 2007; Cummins in Cenoz & Jessna 2000; Verhoeven in Verhoeven & De Jong 1992). I also noticed during the lesson observations that most learners struggled to read words which were written in Zimbabwean indigenous languages, which indicates a need for research on reading literacy development in Zimbabwean L1 languages too. Use could also be made of benchmarks in similar language families. For example, for Ndebele, researchers could make use of what South African researchers have developed for reading benchmarks in the Nguni languages, since Ndebele is also a Nguni language (Ardington, Wills, Pretorius, Deghage, Mohohlwane, Menendez, Mtsatse, van der Berg, 2020)
- Research on vocabulary development and the role that extensive reading plays in vocabulary development in both L1 and L2 is urgently needed. Reading comprehension is influenced by the readers' vocabulary knowledge but to the best of my knowledge there are no studies on vocabulary development and

extensive reading in Zimbabwe, either in L1 or ESL. This study showed that teachers had a shallow understanding of what vocabulary instruction involves: what teachers referred to as vocabulary instruction was a rather superficial asking of learners the meaning of words and how to spell and pronounce them, yet there is more to vocabulary instruction than that. Thus, further research on vocabulary development could be very useful because it could help teachers establish learners' vocabulary levels and know what and how to explicitly teach it, and the ideal reading material necessary to boost learners' vocabulary.

- Collaborative research with scholars from other countries within the region (South Africa, Namibia, Botswana or Zambia) to share English ESL reading data and build up a joint bank on reading literacy is another suggestion. Such collaborative work helps to assess the local situation in relation to other countries so as to see each country's performance and what needs to be improved on.

Suggestions for individual small-scale research

- The textual analysis unearthed a number of issues in relation to the text features of the prescribed books in Zimbabwean primary schools. As a result, I suggest further study on core textbooks for younger grades (Grade 1 and 2), as well as older grades (Grade 5-7) so as to identify textual features and vocabulary profiles which can help to inform material developers on how best to compile user friendly texts which are grade appropriate. That will also help advise teachers on what to teach and how to teach it, as well as the texts appropriate for learners' vocabulary levels.
- From the teacher interviews I got mixed responses on their reading habits. Further research on teachers' reading attitudes and habits would be helpful. Studying teachers' reading habits helps to shed light on their attitudes and how attitudes influence their teaching. Examining this topic also helps to give insight into teacher content and pedagogic knowledge because what one knows influences one's attitude.
- Lastly, I suggest that a review on the teaching of reading literacy courses in Zimbabwean primary teachers' colleges be carried out since my findings suggest that teachers' training influences their content knowledge and the

delivery of reading literacy lessons in classrooms. The uniformity of classroom practices across the schools was noted during lesson observations and from interviews – both the experienced and the newly qualified teachers’ teaching practices were similar, which might possibly be a result of how they were trained. It also suggests that nothing much has changed over time with regard to the teacher training college curriculum. The review could help establish whether the reading literacy courses are in sync with contemporary literacy needs and expectations and also whether the student teachers are actually taught much about reading, its components, how it develops and how best to teach it.

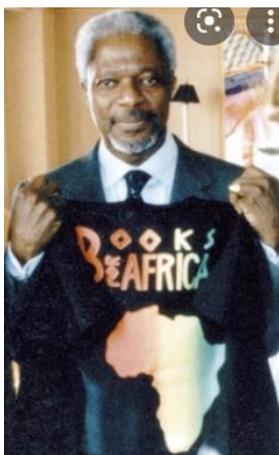
7.7 Final thoughts

The 21st century is a highly complex information and technological age but much of that information and technology is in print form (either paper based or digital), so it is only those who can read who are readily able to access the information. Advances in the sophistication and complexity of technology also mean that higher levels of literacy are required to keep abreast with information. This is an era where the ability to read has become more critical than ever before. However, the ability to read is not naturally acquired; it is a learned skill (Ding et al. 2013) which has proved to be difficult to acquire the world over. This study showed that the Grade 3 and 4 learners in question had reading challenges early in their schooling careers; the majority struggled with reading fluency as well as reading comprehension. Sadly, despite good intentions all around, neither the syllabus, the textbooks nor the daily classroom practices provided them with the kind of support they needed to meet their challenges and perform at levels more appropriate to their grade levels. The study highlights the need to assist learners develop basic reading skills during their early years of primary education since this is the basis of all learning (Mudzielwana 2014; Geske & Ozola 2000). Research has shown that failure to develop basic reading skills by Grade 3 is preparation for lifelong reading challenges as well as academic challenges in general (Blue 2010). Such learners keep falling behind if they continue with their studies without effective intervention measures (Gibbons 2009). Many of them end up dropping out of school, while those who continue with schooling will carry their reading challenges with them, affecting their career opportunities and even participation in society (Oakhill, Cain & Ebru 2014;

Snow 2010). It is most likely that the children of those who struggle with reading and fail to make it in life might end up following their parents' path and it becomes a cycle which might be difficult to break unless the parents commit themselves to their children's education and the children enrol in schools which treat reading development with the seriousness it deserves.

There is need to build up local reading knowledge and research expertise across different institutions (Universities and Teachers' Training Colleges) in Zimbabwe. This is because there are very few reading experts in the SADC region or in Zimbabwe. Specialists are needed for designing the curriculum which is meant to equip teachers with the content and pedagogic knowledge on reading literacy as well as imparting this knowledge to the trainee teachers. The lack of reading experts contributes to the challenges faced in the teaching and learning of reading literacy in Zimbabwe.

Parents through the Parents-Teachers association (school development committees) should also play their role by encouraging parents and guardians to provide conducive environments for oral language development, cognitive stimulating environments at home, morale and material support once a child enrolls for preschool and eventually starts Grade 1. Children love learning and that is why even in worst conditions there are some who will defy all odds. Let us catch them young in as far as reading literacy is concerned. United we can achieve high literacy levels in Zimbabwe and in our African continent.



“Literacy is a bridge from misery to hope. It is a tool for daily life in modern society. It is a bulwark against poverty, and a building block of development, an essential complement to investments in roads, dams, clinics and factories. Literacy is a platform for democratization, and a vehicle for the promotion of cultural and national identity. Especially for girls and women, it is an agent of family health and nutrition. For everyone, everywhere, literacy is, along with education in general, a basic human right.... Literacy is, finally, the road to human progress and the means through which every man, woman and child can realize his or her full potential” (Kofi Annan 1997).

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Appendices

Appendix A: Ethics clearance form



**DEPARTMENT OF LINGUISTICS AND MODERN LANGUAGES:
RESEARCH ETHICS REVIEW COMMITTEE**

29 September 2015

Ref #: AL_FM011_2015

Mrs F Mutema

Student #: 5088 7521

Dear Mrs Mutema

Decision: Ethics Approval

Name: Mrs F Mutema
5780 Mk 19
Gweru
Zimbabwe

+263 773270801

Supervisor: Prof EJ Pretorius

Proposal: The development of literacy skills in the early years of schooling: Case studies from Zimbabwean schools.

Qualification: D Litt et Phil

Thank you for the application for research ethics clearance received on *08 September 2015* by the Department of Linguistics and Modern Languages Research Ethics Review Committee (RERC) for the above-mentioned research. Final approval is granted for the research undertaken for the duration of your doctoral studies.

For full approval: The application was reviewed in compliance with the Unisa Policy on Research Ethics by the Department of Linguistics and Modern Languages Research Ethics Review Committee on 23 September 2015.

The proposed research may now commence with the proviso that:

- 1) The researcher will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.*
- 2) Any adverse circumstance arising in the undertaking of the research project that is*



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Open Rubric

Appendix B: Permission letters to collect data

All communications should be addressed to
"The Secretary for Primary & Secondary Education
Telephone: 732006
Telegraphic address : "EDUCATION"
Fax:794505



ZIMBABWE

REFERENCE: C/426/3Midlands

Ministry of Primary and
Secondary Education
P.O Box CY 121
Causeway
HARARE

8 October 2015

Fungai Mutema
Midlands State University
P.Bag 9055
Gweru



Re: **PERMISSION TO CARRY OUT RESEARCH IN MIDLANDS PROVINCE: GWERU DISTRICT: SENGA; MUUNGA; STANLEY; CHIKUMBIRO; MKOBA 4; AND MPUMELELO PRIMARY SCHOOLS**

Reference is made to your application to carry out a research at the mentioned schools in Midlands Province on the research title:

"THE DEVELOPMENT OF LITERACY SKILLS IN THE EARLY YEARS OF SCHOOLING: CASE STUDIES FROM ZIMBABWEAN SCHOOLS IN GWERU DISTRICT"

Permission is hereby granted. However, you are required to liaise with the Provincial Education Director Midlands who is responsible for the schools which you want to involve in your research.

You are also required to provide a copy of your final report to the Secretary for Primary and Secondary Education by December 2017

A handwritten signature in blue ink, appearing to be 'E. Chinyowa'.

E.Chinyowa
Acting Director: Policy, Planning, Research and Development
For: **SECRETARY FOR PRIMARY AND SECONDARY EDUCATION**
Cc: P.E.D Midlands

All communications should be addressed to "The Provincial Education Director"
Telephone:054- 222460



Ministry of Primary and Secondary Education
P.O Box 737
GWERU

Fax: 054- 226482

30 October 2015

Fungai Mutema
Midlands State University
P. Bag 9055
Gweru



RE: PERMISSION TO CARRY OUT RESEARCH AT SENG, MUUNGA, STANLEY CHIKUMBIRO, MKOBA 4 AND MPUMELELO PRIMARY SCHOOLS IN GWERU DISTRICT : MIDLANDS PROVINCE.

Reference is made to your application dated 08 October 2015 on the above. Please be advised that permission has been granted to you by the Provincial Education Director to carry out a research on:

The title of the dissertation "THE DEVELOPMENT OF LITERACY SKILLS IN THE EARLY YEARS OF SCHOOLING: CASE STUDIES FROM ZIMBABWEAN SCHOOLS IN GWERU DISTRICT".

The permission has been granted on these conditions:

- a) That in carrying out this research you do not disturb the learning/ teaching programmes in the schools.
- b) That you avail the Ministry of Primary and Secondary Education with a copy of your research findings.
- c) That this permission can be withdrawn at any time by the Provincial Education Director or by any higher office.

The Provincial Education Director wishes you success in your research work and in your University College studies.

**A. CHEMHURU
FOR PROVINCIAL EDUCATION DIRECTOR: MIDLANDS PROVINCE.**



Appendix C: Research instruments

Classroom observation checklist

	Neat and tidy		
	Where is the teacher's table?		
	Teacher's desk tidy and professional-no food		
	How are desks arranged?		
	Are learners' desks labelled: names; numbers etc		
	Are the core posters for daily use displayed?		
	Is there a theme displayed?		
	Is learners' work displayed?		
	Wall displays arranged according to learning areas?		
	Do wall displays reflect current theme?		
	Are wall/theme table displays changed regularly in line with what is being learned?		
	Interesting/ stimulating (in terms of literacy)		
	Are new teacher- made resources on display?		

Interview schedule for Grade 3 teachers

1 Could you please furnish me with the following biographical information?

Name of school _____

Your age _____

Gender _____

Qualification(s) _____

Home language(s) _____

Other languages spoken in class

Duration at the current school

2 How long have you taught Grade 3 pupils?

3 Give a brief description of your teaching experiences as a Grade 3 English teacher.

4 What are some of the challenges you face in the teaching of Grade 3 English?

5 How do you conduct your English language lessons?

5.1 Do you prepare daily or weekly teaching plans? If yes, could you please show me? Please explain how you prepare them.

6 How do you make a follow up to the previous lessons in order to help learners who might be having challenges?

7 Which text books do you use?

7.1 Are they the prescribed books?

8 What is the pupil-book ratio?

9 What aspects of language learning do you emphasise on at this level?

10 How do you conduct your English language reading lessons?

11 What has been put in place by the Ministry of Education to enhance reading instruction at this level?

12 Do you have the platform to work together as Grade 3 teachers in order to improve the teaching and learning of ESL in your school? If yes please explain.

13 How often do you hold workshops on ESL teaching and learning and how helpful are they?

14 Do you have individual reading time in the school timetable? If yes what role do you play as the teacher during the reading period? Yes but because of hot sitting it is a challenge. What role do you play?

15 What sort of material do they read?

16 Do you also engage in reading during the reading lesson or it is meant for learners only?

17 If you do not have a reading lesson, what are the reasons for your lack of it on the timetable?

18 Do you have library time? If yes explain how the library operates.

19 How do the reading activities carried out in the school (if any) promote English language learning?

20 What is the role of reading in the teaching of ESL?

21 Should teachers first focus on developing oral language proficiency before reading? Why do you think so?

22 How does the concept of reading relate to other subjects?

23 What causes code switching during English lessons?

24 What effect does it have on academic literacy development?

25 How do you conduct vocabulary lessons and how do pupils perform during vocabulary lessons?

26 Does pupil performance during the vocabulary lessons translate to their performance in composition writing and oral communication in the English language?

27 How often do you give written exercises and how effective is the practice?

28 Could you please comment on the feedback that you give your pupils and how effective is it?

29 Do you involve pupils' parents/guardians in the development of reading among your pupils? If yes please explain.

30 How effective is this practice? Please elaborate.

31 How has your teaching changed since you started teaching Grade 3 classes?

32 What are the socio-economic challenges that you as a teacher face in deliberating your duties and those that your pupils face in the teaching and learning of English?

33 State your expectations of the pupils whom you will be teaching at the end of each given year that you teach Grade 3 pupils.

34 If you were given the opportunity to change some things in the teaching and learning of ESL, what changes would you make?

Interview schedule for Grade 4 teachers

1 Could you please furnish me with the following biographical information?

Your age

Gender

Qualification(s)

Home language(s)

Other languages spoken in class

Duration at the current school

2 How long have you taught Grade 4 pupils?

3 Give a brief description of your teaching experiences as a Grade 4 English teacher.

4 What are some of the challenges you face in the teaching of Grade 4 English?

5 How do you conduct your English language lessons?

5.1 Do you prepare daily or weekly teaching plans? If yes, could you please show me? Please explain how you prepare them.

6 How do you make a follow up to the previous lessons in order to help learners who might be having challenges?

7 Which text books do you use?

7.1 Are they the prescribed books?

8 What is the pupil-book ratio?

9 What aspects of language learning do you emphasise on at this level?

10 How do you conduct your English language reading lessons?

11 What has been put in place by the Ministry of Education to enhance reading instruction at this level?

12 Do you have individual reading time in the school timetable if yes what role do you play as the teacher during the period?

- 13 What sort of material do they read?
- 14 Do you also engage in reading during the reading lesson or it is meant for learners only?
- 15 If you do not have a reading lesson, what are the reasons for your lack of it on the timetable?
- 16 Do you have library time? If yes explain how the library operates.
- 17 How do the reading activities executed in the school (if any) promote English language learning?
- 18 What is the role of reading in the teaching of ESL?
- 19 How does the kind of reading that children do in Grade 3 change when they get to Grade 4?
-
- 20 Do you have the platform to work together as Grade 4 teachers to improve the teaching and learning of ESL in your school?
- 21 How often do you hold workshops on ESL teaching and learning and how helpful are they?
- 22 Should teachers first focus on developing oral language proficiency before reading? Why do you think so?
- 23 How does the concept of reading relate to other subjects?
- 24 What causes code switching during English lessons?
- 25 What effect does it have on academic literacy development?
- 26 How do you conduct vocabulary lessons?
- 27 Does pupil performance during the vocabulary lesson translate to their performance in composition writing and oral communication in the English language?
- 28 How often do you give written exercises and how effective is the practice?
- 29 Could you please comment on the feedback that you give your pupils and how effective is it?
- 30 How has your teaching changed since you started teaching Grade 4 classes?
-

32 Do you involve pupils' parents/guardians in the development of reading, if yes please explain how.

33 How effective is the practice? Please elaborate.

34 What are the socio-economic challenges that you as a teacher face in deliberating your duties and those that your pupils face in the teaching and learning of English?

35 State your expectations of the pupils whom you will be teaching at the end of each given year that you teach Grade 4 pupils.

36 If you were given the opportunity to change some things in the teaching and learning of ESL, what changes would you make?

School principals' interview schedule

1 Could you please furnish me with the following biographical information?

Your age

Gender

Qualifications

Home language

Duration at the present school

2 How long have you been a head teacher?

3 What challenges do learners face during the transition from Grade 3 to Grade 4?

4 What expectations do you have of teachers who take Grade 3/ 4 classes in your school?

5 What concerns if any do teachers raise about the transition?

6 Could you explain how you assist pupils who might not be coping with the transition?

7 How does your school facilitate academic literacy development among Grade 3/ 4 pupils?

8 What role does reading play in academic literacy development?

9 What systems have you put in place as a school to support the development of reading?

10 Does the Ministry of Education have any programmes that support reading or the development of academic literacy at this level?

11 How does your school facilitate parental/guardian participation in the development of reading?

12 Do you assess reading development at Grade 3 and 4 levels? If yes, please could you explain how this is done?

13 What are the socio-economic challenges that you face as a school in relation to academic literacy development?

14 What do you see as possible solutions to these challenges?

15 Could you explain what you would want the Ministry to do in order to promote academic literacy development in primary schools?

NAME:..... SURNAME:.....

SCHOOL..... GRADE:.....

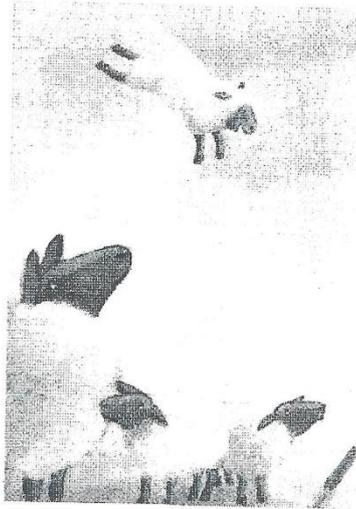
SEX:..... AGE:.....

Brave Charlotte

By Anu Stohner
Illustrated by Henrike Wilson

Charlotte was different from all the other sheep right from the start. When all the other lambs just stood shyly by their mothers, Charlotte was leaping around, ready for adventure.

Charlotte lived with all the other sheep on a hillside far from the farm. They had a shepherd to look after them and he had an old dog named Jack. Jack tried to keep Charlotte under control, but she wasn't scared of him.



NAME: _____ SURNAME: _____

SCHOOL: _____ GRADE: _____

SEX: _____

1. Who is Jack?

2. What did Jack try to do with Charlotte?



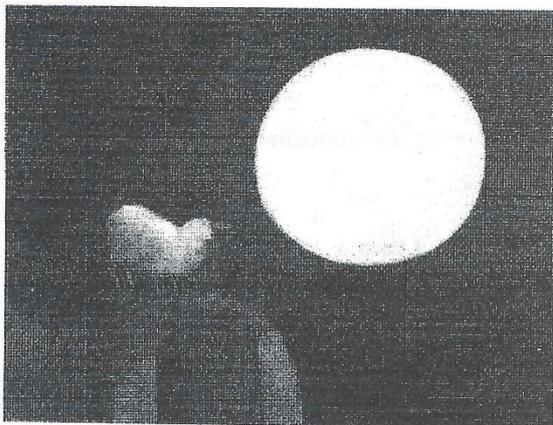
Charlotte was different from all the other sheep right from the start. When all the other lambs just stood shyly by their mothers, Charlotte was leaping around, ready for adventure.

Charlotte lived with all the other sheep on a hillside far from the farm. They had a shepherd to look after them and he had an old dog named Jack. Jack tried to keep Charlotte under control, but she wasn't scared of him.

One time, Charlotte jumped over the side of a riverbank and went for a swim in the fast-running stream.

“Tut, tut,” said the older sheep, shaking their heads.

What would they say if they knew that at night Charlotte secretly roamed through the countryside?



When all the other sheep were sleeping, she would slip away to her special place and gaze at the moon. Even Jack didn't notice. But he didn't have very good ears these days.

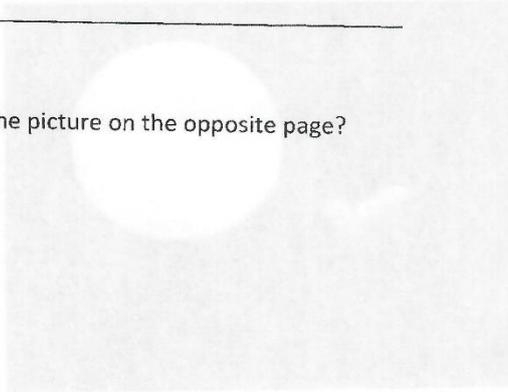
3. Give two ways that Charlotte was different from the other sheep.

1 _____

2 _____

4. Where was Charlotte standing in the picture on the opposite page?

- A in her special space.
- B by the stream.
- C at the farm.
- D in her hiding place.



5. Why didn't Jack notice when Charlotte went out at night?

1 _____

One day something terrible happened. The shepherd fell over and broke his leg. Jack barked and circled around him, but that didn't help one bit. The shepherd lay in the grass, not knowing what to do.



“Oh dear, oh dear,”
said the older sheep.
“Somebody must go to
the farmer’s house in the
valley and get help.”

“Jack should go. He is
the only one who knows the way.”

“But it is too far. He hardly manages with the herd these
days.”

“Yes, that’s true,” said the others, shaking their heads in
despair.

6. Why was the shepherd lying in the grass?

A he didn't want to visit the farmer.

B he had broken his leg.

C he wanted to go to sleep.

D he was gazing at the moon.

7. Where did the animals need to go to get help?

1

8. Give one reason why Jack was the best one to get help?

Then Charlotte said, "I'll do it. I'll go."

"Charlotte?" muttered the older sheep.

"Out of the question! A sheep has never gone to the valley alone."

The older sheep were beside themselves with worry. But Charlotte couldn't hear them. She had already left to find the right way to the valley.

She bounded over fields, through the stream, and over the mountain.



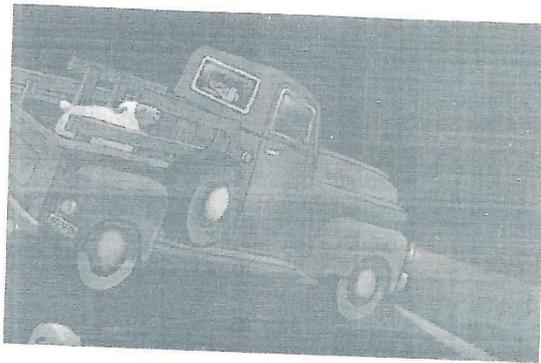
9. How did the older sheep feel when Charlotte left?

- A happy.
- B relieved.
- C worried.
- D angry.

10. Why couldn't Charlotte hear the older sheep?

1 _____





When Charlotte reached the busy road, it was the middle of the night. She stood and watched the traffic.

A truck driver noticed Charlotte and stopped in the road.

“Going to the valley?” he asked. Charlotte nodded.

11. When did Charlotte reach the road?

1 _____

12. What did Charlotte do when she reached the road?

A she walked towards the farmer's house.

B she stood and watched the traffic.

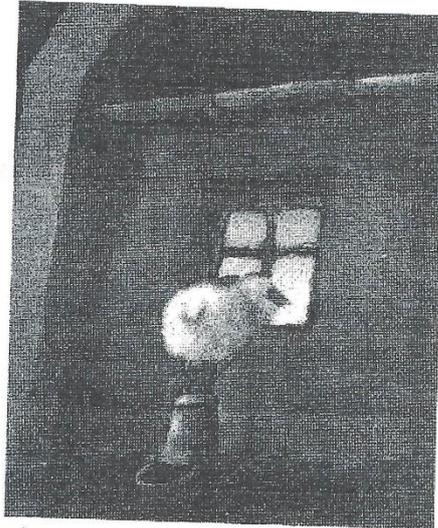
C she tried to cross the road.

D she waved for a truck to stop.

It was so nice to speed along in the truck that Charlotte was almost sorry when they reached the farmer's house.

The farmer was asleep when Charlotte tapped on his window with her nose.

"It's Charlotte," said the farmer, "and she is all alone. Something must be wrong."



13. Why was Charlotte almost sorry to reach the farmer's house?

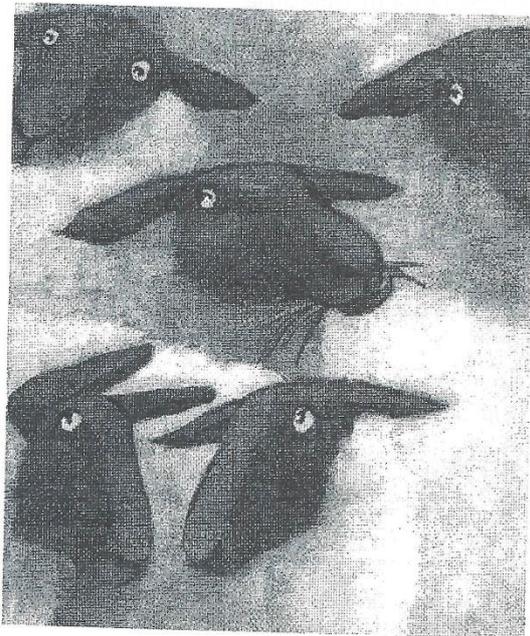
- A she missed the other sheep.
- B she would have to wake up the farmer.
- C she liked the ride in the truck.
- D she was worried about the shepherd.

14. How did the farmer know something was wrong?

- A Charlotte was all alone.
- B Charlotte told him.
- C Charlotte came in a truck.
- D Charlotte looked sorry.

Charlotte and the farmer drove on the tractor to find the other sheep. When they arrived, the poor shepherd was still lying in the grass. The farmer took him to the hospital right away.

The shepherd had his leg in a cast for six weeks before he could go back to the sheep. When he returned, he gave Charlotte a big smile. From then on, Charlotte was free to roam as she pleased.



15. What did the farmer and Charlotte do together?

1 _____

16. How long did the shepherd have a cast on his leg?

1 _____

17. Why did the shepherd give Charlotte a big smile?

1 _____

18. Put the events of the story in the correct order. The first one has been done for you.

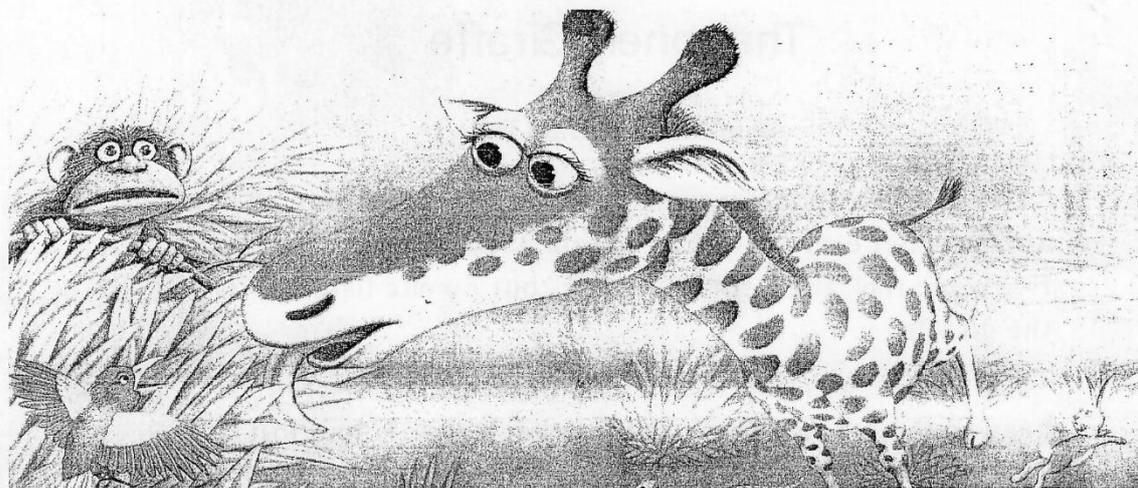
The shepherd goes to the hospital.

Charlotte goes to the valley.

1. The shepherd needs help.

The farmer finds the shepherd.

The Lonely Giraffe



So the giraffe would lift his long neck and wander off. He spent all day with his head in the trees eating the sweetest leaves.

He didn't know that the birds were frightened of his large head suddenly appearing in the treetops. Or that the small animals on the ground ran away because they were scared of being stepped on.

After a while, the lonely giraffe stopped trying to speak to anyone. This went on for the rest of the long dry summer.

Cir4 - ORP

Enemy Pie

by Derek Munson

illustrated by Tara Calahan King

It was a perfect summer until Jeremy Ross moved in right next door to my best friend Stanley. I did not like Jeremy. He had a party and I wasn't even invited. But my best friend Stanley was.

I never had an enemy until Jeremy moved into the neighborhood. Dad told me that when he was my age, he had enemies, too. But he knew of a way to get rid of them.

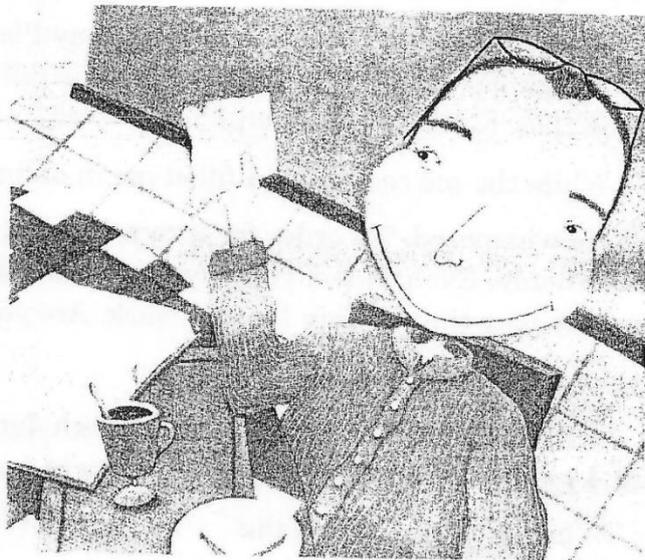
Dad pulled a worn-out scrap of paper from a recipe book.

"Enemy Pie," he said, satisfied.

You may be wondering what exactly is in Enemy Pie. Dad said the recipe was so secret, he couldn't even tell me. I begged him to tell me something—anything.

"I will tell you this, Tom," he said to me. "Enemy Pie is the fastest known way to get rid of enemies."

This got me thinking. What kinds of disgusting things would I put into Enemy Pie? I brought Dad earthworms and rocks, but he gave them right back.





I went outside to play. All the while, I listened to the sounds of my dad in the kitchen. This could be a great summer after all.

I tried to imagine how horrible Enemy Pie must smell. But I smelled something really good. As far as I could tell, it was coming from our kitchen. I was confused.

I went inside to ask Dad what was wrong. Enemy Pie shouldn't smell this good. But Dad was smart. "If it smelled bad, your enemy would never eat it," he said. I could tell he'd made this pie before.

The oven buzzer rang. Dad put on oven mitts and pulled out the pie. It looked good enough to eat! I was beginning to understand.

But still, I wasn't sure how this Enemy Pie worked. What exactly did it do to enemies? Maybe it made their hair fall out, or their breath stinky. I asked Dad, but he was no help.

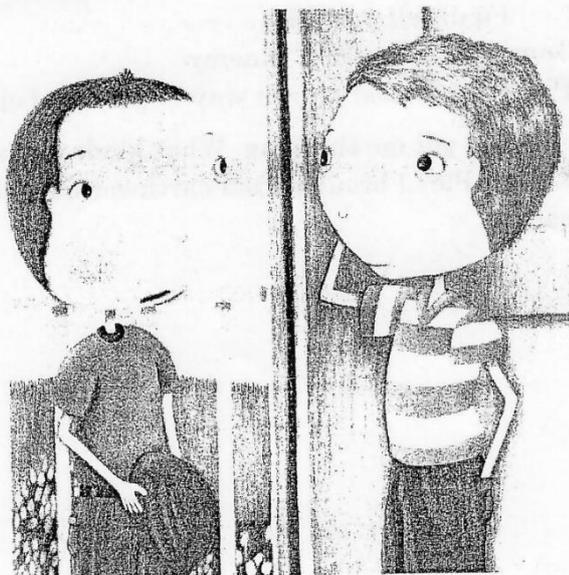
While the pie cooled, Dad filled me in on my job.

He whispered. "In order for it to work, you need to spend a day with your enemy. Even worse, you have to be nice to him. It's not easy. But that's the only way that Enemy Pie can work. Are you sure you want to do this?"

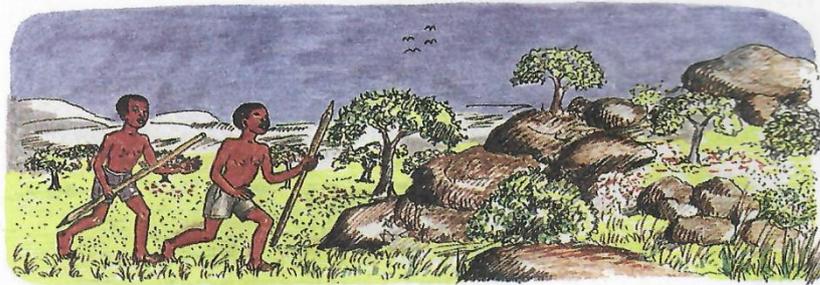
Of course I was.

All I had to do was spend one day with Jeremy, then he'd be out of my life. I rode my bike to his house and knocked on the door.

When Jeremy opened the door, he seemed surprised.



Hunting and trapping



"Let's make some spears," said Jabulani.

"What shall we do with them?" asked Dzauya.

"We'll hunt animals on the hill," answered Jabulani.

The boys made spears from sticks. They took off their shirts so that they looked like hunters from long ago. Slowly they walked up the hill. They listened carefully, but only heard birds singing in the trees.

Then Jabulani heard a noise in the leaves under a tree. A grey snake was moving around.

"Snakes are dangerous," said Dzauya. "I don't want to hunt any more."

"You're afraid," laughed Jabulani.

"No, I'm not. I'm careful," said Dzauya.

They saw a *mutatarimbo* tree.

"Let's catch birds," said Jabulani. "We can use the juice from this tree."

The boys cut the bark of the tree, and caught the juice in a *matamba* shell. They used the juice to trap the birds in the old way. They put peanuts on the ground beside the trap and went home.

Later, the boys went back to the trap. In the trap were five little birds. They took them home. Uncle Themba cleaned the birds and cooked them over a fire. The boys watched him and learned how to do it. Grandmother cooked a pot of sadza. They all enjoyed their supper that day.

This flower is twice
the size of ...

This clump of grass is
four times larger ...

A plant

words,
words,
words!

Look at this drawing of a sunflower.
Write the name of each part as shown below.

flower
seeds
leaves
stem
soil
roots



Collect other plants.
Can you see the
flowers? The seeds?
The roots?

Collecting eggs



One fine morning, Sipiwe and her mother went to collect eggs from the hens. Sometimes they took them from underneath the hen, and sometimes they found an egg by itself.

Mother picked up an old hen, which made a terrible noise.

"Quickly, Sipiwe! Take the egg!" said Mother.

"This egg is warm," said Sipiwe.

"Yes, because the hen wanted to keep it warm. But if the hens don't sit on their eggs, they become cold, and the chicks won't grow."

"What does the chick eat inside the shell?"

"The food is already there," answered Mother. "The yellow



part is the food for the growing chick. When you break an egg, you can see a tiny black spot. That black spot grows into a chick. When there is no more food left, the chick fills the whole egg. Then it breaks the shell, and comes out alive. Isn't that wonderful?"

"Yes. Will a chick come out of this one?"

"No, because it will now get cold."

"Look, Mother! There's an egg under a big leaf. It's cold."

"Yes, the hen did not sit on that one. The chick did not grow so we can eat it."

"Come on, Mother! Let's go and cook some eggs for our breakfast."

How well did you understand?



Answer these questions:

- 1 Are these sentences true or false?
 - a) Sipiwe and her mother found two eggs.
 - b) The old hen kept quiet.
 - c) Inside the egg, a growing chick feeds on the yellow part.
 - d) A cold egg can hatch.
 - e) Sipiwe doesn't like eggs.
- 2 What colour is the spot that grows into a chick?
- 3 What happens if you do not take eggs from a sitting hen?

What will happen



Complete these sentences:

- 1 If a hen sits on an egg it will ...
- 2 If the egg grows cold, it ...
- 3 If plants do not get water, they ...
- 4 If you eat too many sweets, your teeth will ...

Sizes



Read these words:

small **smaller** **smallest**
big **bigger** **biggest**

Now answer these questions about the birds on page 121.

- 1 Is Peter bigger than Olga?
- 2 Is Hilda bigger than Peter?
- 3 Is Gidi smaller than Hilda?
- 4 Which bird is the smallest?
- 5 Which bird is the biggest?

How the elephant became a king



Long ago, when Shumba the lion was king of the forest, Gonzo the rat became very angry. Someone was stealing his peanuts. Every morning he found a pile of empty nutshells near his field. He decided to go and report the matter to the king.

On the way, he went through the forest.

Gonzo moved quietly. He didn't want the snakes to hear him. When he came out of the forest, the sun was going down. He saw Shumba and his family drinking from the river.

"Great King!" said Gonzo. "I have come for your help. Three months ago I planted a field of peanuts. The rain fell, and the nuts grew big and fat. But now every night someone steals from the

field. Soon, there will be no peanuts left for me."

"Grrrah!" roared the lion.

"P-P-Please help me!" said Gonzo.

"Grrraah!" roared Shumba, even louder.

The monkeys were afraid of the lion's roar, and climbed high into the trees with their babies. The birds flew into the sky.

"Please will you help me?" asked Gonzo, shaking with fear.

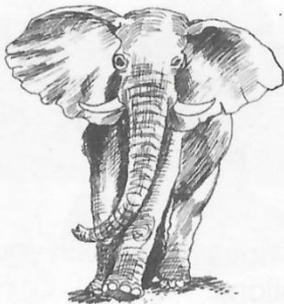
The Lion did nothing but roar. Most of the animals ran away. Finally, they met Nzou the elephant.

"Nzou!" they cried. "The lion is very angry. He won't listen to Gonzo's problems. He will eat us all up!"

Nzou was nearly three times as tall as Shumba. He had a hard skin. His legs were like trees. His nose was longer than a snake.

"Don't worry, dear friends," he said. "I won't let him come near you."

They made Nzou the elephant their king and he kept them safe.



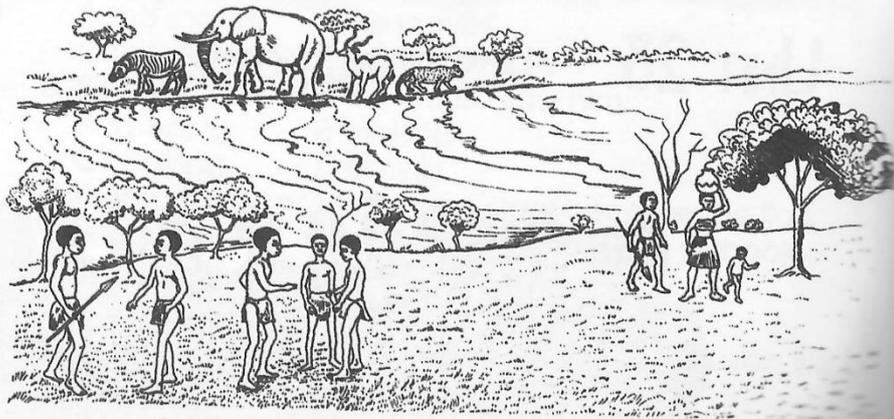
How well did you understand?



Answer these questions:

- 1 Gonzo went to see Shumba
A to give him peanuts. B to get peanuts.
C for help. D because he liked him.
- 2 Gonzo walked quietly through the forest so he would not disturb

Working together



Once upon a time, all the animals lived in Hondeland. The country next to Hondeland was called Gatsiland. Mamba was the chief of all the people in Gatsiland. A very wide river ran between the two countries, without a bridge. But under the leadership of Nzou, the elephant king, the animals started to build a bridge across the river. When the people of Gatsiland saw this, they started building the bridge from their side. Soon the two groups came together and were friends.

One morning, some women walked across the bridge to Hondeland. They came to get millet and peanuts. They walked in a line, one behind the other. The first was tall and thin. The second was rather short. The third woman was young and she smiled a lot. Three more women carried big clay pots on their heads. Behind them came a group of children. One boy was pulling a cow by a rope around its neck.

Nzou and the animals went to meet them. The animals thought the women were very beautiful. The women talked to the animals in a friendly way. The children liked playing with the young animals.

Soon the women's pots were filled with millet and peanuts. The women lifted them slowly onto their heads. The children were sorry to say good-bye.

"Come and see us next time!" they said, and the animals promised to come.

Revision

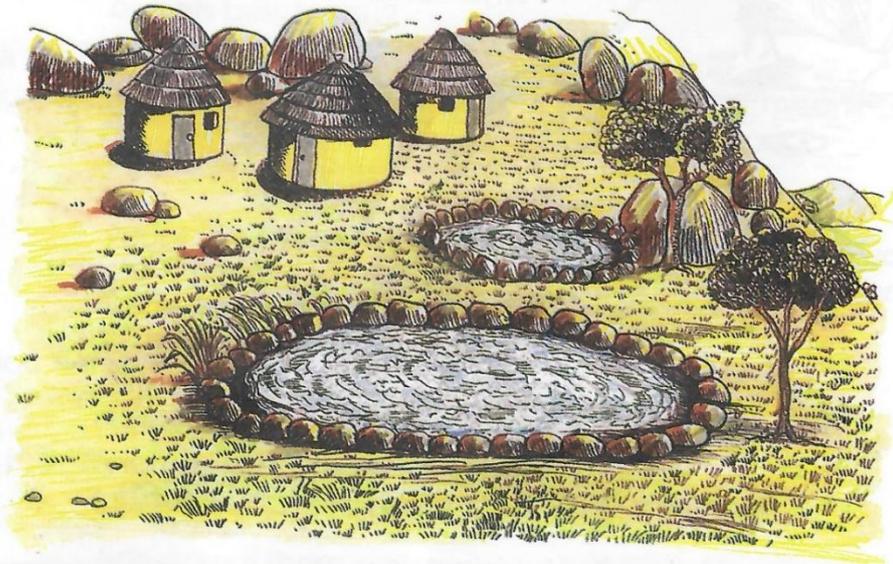
remember

What do you remember about this book?

Look through the book, and:

- 1 find a story about coins.
- 2 find a story about hunting.
- 3 find a picture of a tortoise.
- 4 find a picture of an owl.
- 5 find a picture of growing plants.
- 6 find a story about a rat.

The snake which guards the pools



Near a little village in the hills are big, deep pools of water. Nobody knows where the water comes from. It is clear but hot. Bubbles come up from the bottom, and the water makes strange noises. On cold days there is steam over the pools. There is always a strong smell of boiled eggs coming from the water.

The villagers put rocks around the pools. Many women and children come to fetch water here. No matter how much water they use, it is never finished.

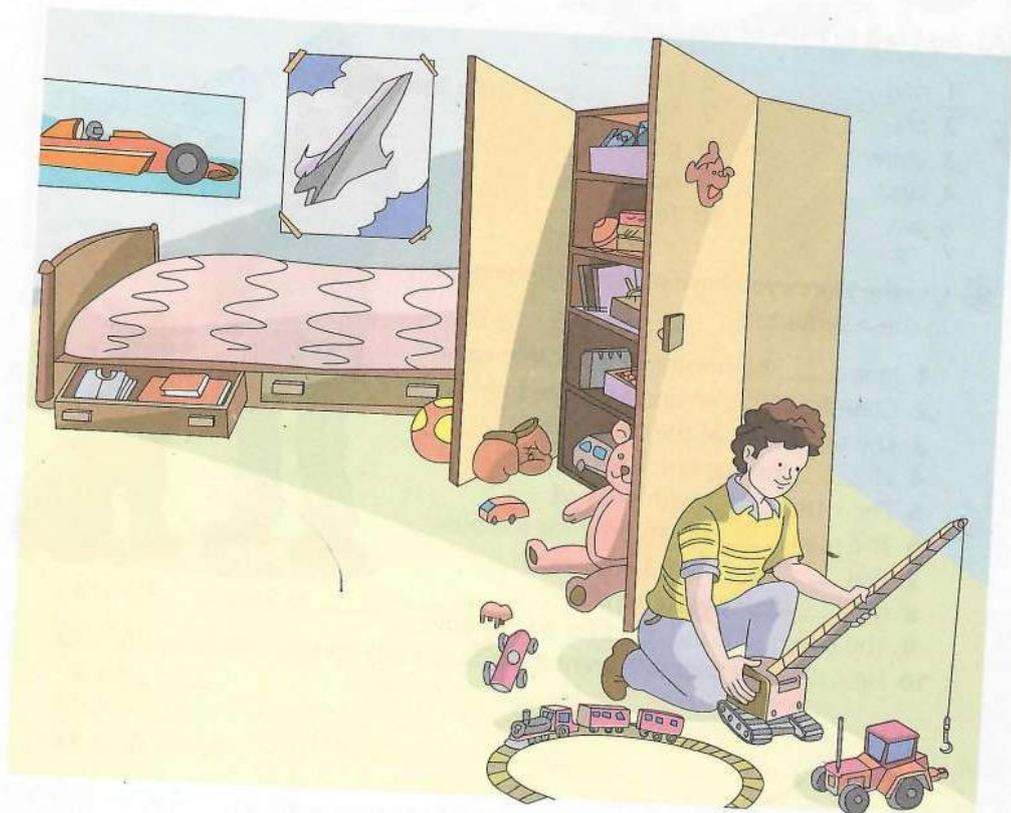
One day a traveller heard about this strange water.

MARTIN'S TOYS

Martin has a big cupboard full of toys. Some are new but most of them are old. He will not get rid of any of them.

The toy he likes best is his clockwork train. The oldest toy is a teddy bear. His mother bought it for his first birthday.

Martin also has a big crane and a tractor. These are almost new. The crane can lift the tractor right off the floor.



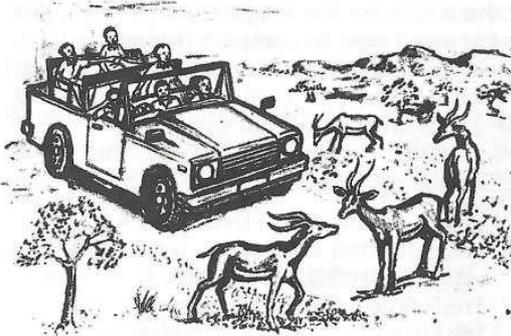
- 1 Where does Martin keep his toys?
- 2 Which toy does Martin like best?
- 3 Who bought the teddy bear for Martin?
- 4 Which toy does Martin lift off the floor with his crane?
- 5 Is it true that most of Martin's toys are new?

Rules and regulations

, W2, W3, W5,
past, revision of *must*, *mustn't*, *have to*



A visit to a game park



The car stopped at the gate of the small game park. Father pointed to a large board.

He asked Tendai, "What does that sign say?"

"It tells you that you must drive carefully and slowly," answered Tendai.

Father said, "Are there any rules for you?"

"I mustn't leave the car," read Tendai. "I won't. I don't want to be chased by a rhino."

"Nor do I," said Tsitsi. She was too young to read. "What does the sign tell me?"

"You mustn't feed the animals."

"Why not?" asked Tsitsi.

Mother said, "The animals have all the food they need. Some animals, like impalas and kudu, eat grass and leaves. Others, like lions and leopards, eat other animals. They don't need your food."

"Isn't there a rule for Mother?" asked Tsitsi.

"There are two more rules for us all," answered Tendai. "You mustn't drop things from the car window and you must not start a fire."

Unit 3: Rules and regulations

Father said, "Don't forget that those rules are for everyone. Remember them!" He drove on slowly and carefully.

They saw some impala eating grass. Then they saw a kudu with beautiful horns. Some ugly warthogs ran across the road with their little thin tails held up high.

A big black and white fish eagle flew slowly across the lake. It stood on the top branch of a bare tree.

They saw many wonderful animals and birds in the game park that day.



How well did you understand?

Find these words in the passage. Work out the meaning by reading the whole sentence.

chased beautiful sign ugly bare eagle

Big and *little* are common words. Do you know some others that mean almost the same, or mean *very big* or *very little*? Make two lists, one for 'big' and one for 'little' words.

Answer these questions:

- Rules in the game park are
 - to protect the animals only.
 - to protect motor cars.
 - to protect the people only.
 - to protect people and animals.
- The rules they read were for
 - Father.
 - everyone.
 - the children only.
 - people who can read.
- People must not feed the animals because
 - they have plenty of good food and are not hungry.
 - they are dangerous.
 - it is very expensive to feed animals.
 - they might chase you.
- Father stopped the car
 - to pay to go into the game park.
 - to read the rules on the board.
 - to watch the animals.
 - to talk to his family.

New Primary English Grade 4 Pupils' Book



The elephant

Read the passage below and answer the questions that follow.

The African elephant is the largest animal that lives on land. It can weigh as much as five tonnes. A male can be six metres tall.

An adult bull elephant eats 200 kilograms of food every day. It likes to eat leaves, fruit, grasses and tree bark. At a waterhole it sucks up nine litres of water at a time into its trunk. Then it squirts the water from its trunk into its mouth. Elephants drink as much as 100 litres in one visit to the waterhole.

The elephant's trunk has many uses. It gathers food and water. It breathes in air and smells enemies and it is also a weapon. It makes a loud noise like a trumpet. A female elephant sometimes smacks her naughty children with her trunk.



How well did you understand?

Answer these questions:

- Elephants drink
 - nine litres of water a day.
 - through their trunks.
 - up to 100 litres at the waterhole in one visit.
 - many times each day.
- The African elephant
 - is bigger than the Asian elephant.
 - is the biggest animal in the world.
 - lives in Africa and Asia.
 - has a mass of more than five tonnes.
- The elephant's trunk
 - gets in the way.
 - is short and thin.

- is only a weapon.
- has many uses.

- Find words in the passage that mean the same as
 - a small lake.
 - forces.
 - a musical instrument.
 - male.
- Do you think a male elephant is bigger or smaller than a female one?
- If there is an animal bigger than an elephant, where do you think it would live – on land, in the sea, or in the air?
- List five ways in which an elephant uses its trunk.

Words!

- Turn the three sentences into one by using *if* at the beginning.
 - The rains are heavy. The harvest will be a good one.
 - The river is full. We cannot cross it.
 - I walk slowly. I will be late for school.
- Put in the correct form of the word in brackets in the gap in these sentences.
 - I found Nora ... her hands at the tap. (*washing/washed/washes*)
 - The old woman sat ... her food. (*eat/eating/ate*)
 - Who is the boy ... that bicycle? (*ride/rode/riding*)
- Answer these questions in full sentences.
 - How often do you go to school?
 - How often do you have a bath?
 - How often do you have a birthday?
- Use *the same as* or *different from* in these sentences.
 - Apples taste ... oranges.
 - The uniform at my school is not ... the uniform at your school.

Finding your way

2, W3, W4



Describe your own drawings

Draw a person or an object in these positions. Write a sentence to describe each picture. The first one is done for you.

- 1 The cat is underneath the car.
- 2 ... inside the desk.
- 3 ... above the table.
- 4 ... on top of the house.
- 5 ... among the trees.
- 6 ... beside the road.



Hen catches a meal

One morning Hen felt hungry. She had no food *inside* her stomach. She pecked and scratched but she found no worms or insects *in* the soil.

She walked *along* a path and stopped *near* a bush. "I might find some food *under* that bush," she thought.

She scratched the soil. Suddenly, she heard music coming from *above* her head. She looked *up*. *On top of* the bush, Grasshopper sat *on* a twig and sang a song. What could Hen do? The twig was *beyond* her reach. Quickly, she worked out a clever plan to catch Grasshopper.

"Good morning," smiled Hen.

"Good morning, Hen. It's warm *up* here in the sun. What are you doing *down* there?"

"Nothing."

"Do you like my song?" asked Grasshopper.

"It is wonderful," replied Hen, "but best of all I like your silky wings when you fly."

Unit 24: Finding your way

Grasshopper flew to another twig to rest off his wings.

Hen said, "Your wings are beautiful, but your legs are thin. One day they will break."

Grasshopper laughed. "My legs are as strong as steel."

"I don't believe you," said Hen. "If you land *on* the rock *on this side of* the tree, you will break them."

"I will show you how strong my legs are," said Grasshopper and he flew *down*. As he landed, Hen caught him and ate him.

Now Hen was happy. She was no longer hungry. She cleaned her beak on the rock. Then she sat *under* the tree and went to sleep.



How well did you understand?

Find the meanings of these words. Reading the whole sentence will help you.

scratched twig silky steel worms

Answer these questions:

- 1 Hen had to make a clever plan to catch Grasshopper because
 - A he was sitting on a twig beyond her reach.
 - B he was singing.
 - C it was warm in the sun.
 - D he had beautiful silky wings.
- 2 In the story Grasshopper is
 - A clever. B cruel.
 - C foolish.
 - D a good friend of Hen's.
- 3 Who was singing on top of the bush?
- 4 Hen said the song was wonderful. Was she telling the truth? Give reasons for your answer.
- 5 Do you think Hen was right to eat Grasshopper? Give reasons for your answer.
- 6 If you were Grasshopper, what would you have done?
- 7 Write down the words in italics in the story. They tell you something about place. Use each one in a sentence of your own to show you know what the words mean.

New Primary English Grade 4 Pupils' Book

the past

past form of

be sure she

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t together.
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English

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Unit 32

The last lap

Syllabus references: L2, L4, S2, S3, R1, R2, R3, W1, W4, W5
Structures: ask and offer advice



Offering help

Jacob's bicycle tyre has a puncture. Vusa stops and looks.



JACOB: Excuse me, could you help me, please?

VUSA: Yes. What's the matter?

JACOB: My bicycle tyre has a puncture.

VUSA: Oh, I'm so sorry. Perhaps you should take it to that garage over there.

JACOB: Will they be able to mend it?

VUSA: They mend motor-car tyres. I expect they can mend a bicycle tyre.

JACOB: That's a good idea. Thank you very much.

Now act out these dialogues with a friend.

- 1 You are walking home without shoes and you step on some broken glass. The glass cuts your foot. You sit down in pain. You call for help from a friend who is passing by. The friend offers help and advice.

- 2 You are alone in your village home. You see that one of the animals (a cow or a goat) has escaped. You go to the next house and ask for help to catch it. Your neighbour offers good advice.
- 3 You are playing a ball game with friends. The ball goes over the high wall or fence into the next door garden. You see a girl or boy on the other side and ask him or her to help you.



Grandmother Chibasa

Before you read, think about the picture below.
Who are these two people?
Where are they going?
Is the weather hot or cold?



Grandmother Chibasa is old but strong. She likes to do things herself.

She also likes to do things for her grand children. That is why her hut is always full of children of all ages. The first thing she says to them is, "Have you eaten anything today?"

The reply is always, "No, nothing," or "Only a little."

Then Grandmother looks in her clay pots for pumpkin, sweet potatoes or boiled maize with nuts or beans that have been left over.

She invites her guests to wash their hands and sit down. Then she warms up the food. If there is no food in her clay pots, she looks for some nuts, saying, "These young mothers don't know how to feed their young ones."

She takes her basket from a hook on the wall and goes to the granary. She brings back some peanuts which the children love to eat. She roasts them over the fire.

One day her daughter came in and saw her son eating peanuts. "James has just had a huge breakfast," she said.

Another daughter bought her a warm coat, but she doesn't use it much. She says it's too heavy. She prefers to put on all her dresses one on top of the other.

If she is still cold, she asks one of her grandsons to bring logs and make a big fire in her hut. She sits as close to the fire as she can, wearing all her clothes. She puts a rug over her shoulders.

The young children love the fire. They come and sit with her and eat nuts. Then they listen to her stories. She tells animal stories and she sings many songs with the children.



How well did you understand?

Answer these questions:

- Grandmother's hut is popular with the children because
 - children always go there.
 - Grandmother is very old.
 - she offers them food.
 - she wears funny clothes.

- In her clay pots she looks for
 - the left-overs of meals.
 - water to wash hands.
 - meat and fruit.
 - peanuts.
- She goes to the granary to fetch
 - clay pots.
 - her warm coat.
 - her grandchildren.
 - some peanuts.
- She doesn't wear her warm coat because
 - her daughter bought it.
 - it's too heavy for her.
 - she never feels cold.
 - she is an old lady.
- How does she dress when she is cold?
- If she is still cold, what else does she do?
- What sort of stories does she like to tell?
- Why do you think she doesn't want other people to do things for her?



Write about your favourite relative

Who is your favourite relative? Write about that person and say why you like him or her.



Writing letters

Dear Father and Mother

I have now been staying with Uncle and Auntie for some time. I like the new school. It is better than my old school, and the teacher is good to me. Some of the children are friendly, but some of them are not. They call me rude names.

But I am writing to ask you to let me come home. I do not like staying with Uncle and Auntie. This place is not friendly, and Reuben does not like me. I do not understand their games. Please help me because I want to be at home with you.

Your loving daughter

Francesca

Imagine letter on Write and adv



Write : gives t help a



The bush fire

Read the passage below and answer the questions that follow.

The flames leapt high into the air, and a rush of heat blew against Sifile's cheeks. He stepped back and mopped his sweating face with the bottom of his shirt. His back was aching. His arms were aching, but the fire was still blazing. It was advancing steadily across his father's land. It was gobbling up the grass and small bushes as it advanced.

Sifile picked up the wet sack and began to beat the flames again. The men next to him were also beating the flames with wet sacks. Many men were fighting the fire. They had formed a line against it, and were doing their best to smother the flames with the wet sacks.

It took two full hours, and when the last flame had been put out, the men walked wearily home, dragging their wet sacks behind them.

Marvels and Mysteries – Sunrise Readers Red Book 1 – V. Jenkins – Longman, 1994.



How well did you understand?

Answer these questions:

- Sifile felt
 - excited by the fire.
 - hot and tired.
 - frightened.
 - cool.
- The fire was
 - nearly out.
 - moving away from Sifile.
 - moving fast towards him.
 - only a small one.

- Sifile fought the fire
 - with lots of people.
 - with his father.
 - on his own.
 - with many men, women and children.
- Why did everyone use wet sacks?
- How long did the fire last?
- Why do you think the men stood in a line?
- At what time of year do you think this fire took place?



Words!

- Join these sentences with *who* or *which*.
 - This is my friend. She lives next door.
 - The farmer chased the chickens. They ran away.
- Can you remember what these initials stand for?
 - PO
 - ZRP
 - NRZ
- Put in the correct word.
We scored more goals than the other team ... we won the match. (*but/so/because*)
- Which word is missing?
...I got off the bus, my friend was there to greet me. (*Why/Whether/When*)
- Punctuate this sentence.
i need flour eggs and tomatoes from the shop said mrs ncube
- Spell these words correctly.
lissen skrach rubish
- Which are the silent letters in these words?
 - naughty
 - soften
 - knowledge



Write a letter

Write a letter to your favourite cousin or friend asking him or her to come and stay with you during the holidays. Give short and simple instructions for how to get from the bus or train to your house.



The bush fire

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Write a letter

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Unit 10 Introduction to the study of plants



Figure 10.2 A mango tree

Flashback

Make a list of all the plants you know. Share your list with a friend and see if they have listed plants you have not listed.



Key words

shrub

herb

weed

Plants within the local environment

The environment has a lot of plants. These include grasses, trees, and shrubs. Trees are plants which have hard stems that grow tall. Shrubs are small to medium sized bushes that have multiple stems near the ground. Grasses are thin and they have soft stems.

55

425

Trees
sized
have

55

Types of plants

Trees

Trees have long/tall trunks that supports branches above the ground. Most trees are woody and grow tall and strong.

We use trees for different things. Trees provide us with:

- poles for building
- timber to make furniture
- medicines and remedies
- oxygen for breathing
- paper

Shrubs

Shrubs are plants with smaller and numerous stems. We find most shrubs as bushes in our community. Some shrubs like the bougainvillea have flowers. We use them to decorate our yards and mark boundaries. Some shrubs are used as hedges as most of them have their leaves all year round. Some shrubs are herbs. Herbs are plants with leaves, seeds or flowers used for food, medicine or perfume.

Grasses

These are plants with narrow long leaves and thin stems that are jointed. Some grass plants produce food. Barley, maize (corn), rapoko, rice, sorghum, wheat and millet are all grasses. Grasses that grow tall are called tufted grasses. These are often used for thatching and are harvested to make hay. Runner grass does not grow tall, it moves and covers the ground. This type of grass is often used as lawn or fodder for cattle and horses.

Activity 1

Go around the school, and take a small branch from any plant and say the name to the plant. Use the local names where necessary.

Activity 2

Look for manilla sheets, cut them into A4 size. Dry the leaves in a shade so that they do not lose their colour. After drying them, paste the leaves on the manilla sheet. Write the names of the trees and bushes from which you took the leaves. State the uses of these trees and bushes in your community.

Activity 3

Go home and research on the importance of each plant you have picked from the garden, field or orchard.

Unit 21 Apiculture



Figure 21.1 Finding bees

Flashback

What is the taste of honey? Where does honey come from?



Key words

apiculture

nectar

bee-hive

pollination

Summary

- Small livestock kept at home are usually kept to be...

Glossary

Trough
Poultry

Production of honey for commercial use. Bees are kept in hives to produce honey. Sometimes bees find their own hives. To keep bees make bee hives with them and make honey.

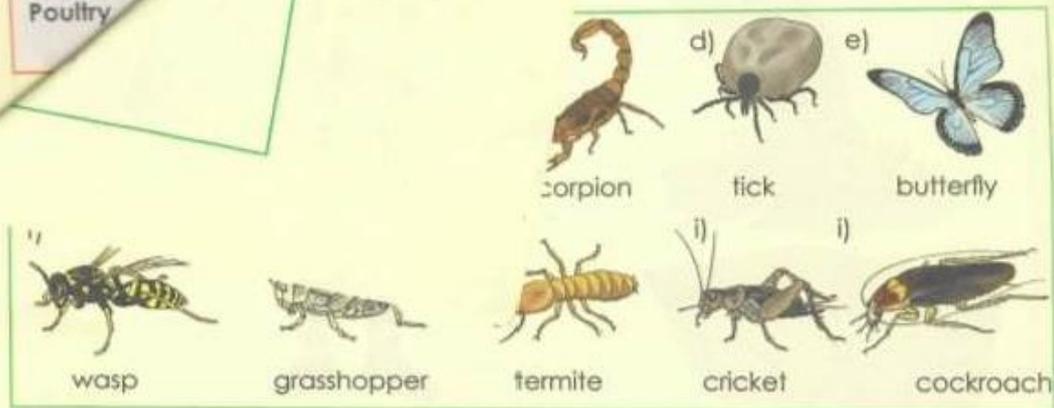


Figure 21.2 Types of Insects

Distinguishing bees from similar insects

Bees defend themselves by stinging animals that threaten or disturb them. They are similar to wasps/mago/olonyovu because wasps also sting to defend themselves and hunt. Bees are different from wasps because they are hairy and wide with flat hind legs. Wasps' bodies are slender with a narrow waist connecting the thorax and abdomen. Bees have a stinger that is designed to sting other bees and when they sting other animals their stinger gets stuck on the flesh of the victim and they die while trying to fly away. Honey bees are only designed with enough venom to sting an enemy once. Venom is poison that is made inside an insect's body. Wasps can sting multiple times without dying because they use their venom to kill the insects they eat. Bees feed on nectar and pollen from flowers only while wasps feed on nectar and other insects. Table 21.1 shows the difference between bees and wasps.

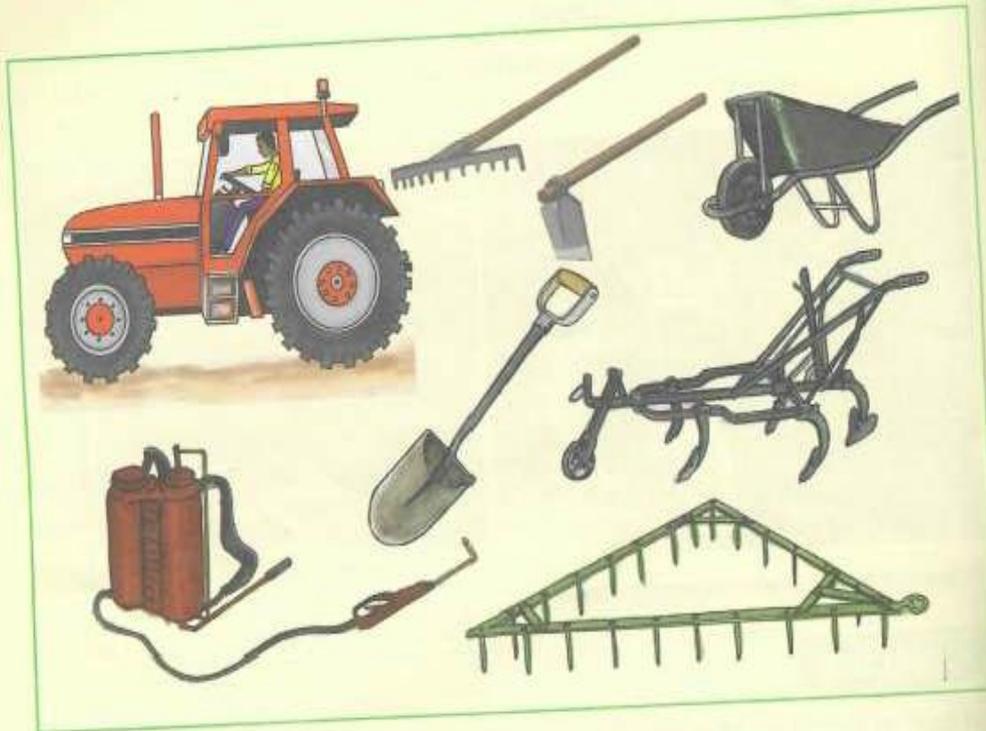


Figure 22.2 Farm implements

Flashback

You may have been to a farm or seen people working on a farm somewhere. What implements were used?

Key words

fertilizing

soil preparation

irrigation

Types of farm implements and machinery

Farm implements are tools, machines and equipment used by farmers on the farm. They help farmers to take care of crops and animals. These can be classified under the following groups: Soil preparation and cultivation, planting, fertilizing

and pest control, livestock, irrigation and harvesting. Most farm equipment fall under these groups.

Soil preparation and cultivation equipment is used to prepare the soil for planting and taking care of crops after they have been planted. This involves removing weeds that disturb the growth of crops. Tractors, ox-ploughs, hoes and harrowing rakes are examples of implements that fall under soil preparation and cultivation equipment.

Planting equipment is used to help farmers put seeds in the ground so that they grow. In more technologically developed farms, farmers use planters to plant crops. A planter is an agricultural farm implement towed behind a tractor, used for sowing seeds on a field. It is connected to the tractor with a draw-bar and drops seeds over prepared land.

Fertilizing and pest control equipment is used to spray and apply fertilizer and pest control chemicals to crops. In Zimbabwe the most common tool that falls under this category is the knapsack sprayer.

Livestock equipment is mainly used to make sure that animals grow healthy and strong. It is used to protect domestic animals from diseases and increase the strength of their bodies' ability to fight diseases. Examples of these include vaccines which are medicines used to prevent animals of different sizes and ages from certain diseases, dipping solution for removing of ticks and feeding containers.

Irrigation equipment is used to water crops on fields. Examples of irrigation tools include sprinkler pipes. Harvesting equipment is used collecting the produce of crops that are ready to be processed or eaten. Common examples of these include milking machines, mowers, rakes and potato harvesters. Table 22.1 shows the different types of farm equipment.

Table 22.1 Farm machinery

Machinery	Name
<p>a)</p> 	<p>a)</p>

Topic

1

Health and safety

Unit 1 Human body

In this unit you will:

1. identify different types of teeth and their functions.
2. describe causes and prevention of tooth decay.

Flashback

The body has different parts and needs to be taken care of. These include the teeth, hair, hands, eyes and ears, armpits and pubic area.

Key words



acid bacteria cavity decay dentist digest
enamel gum disease plaque swallowing

There are different types of teeth found in the mouth and they have different functions. Teeth are an important part of the human body, as such they should be taken care of to avoid tooth decay. Tooth decay can be caused by what we eat and drink. What one eats or drinks is known as a diet. A balanced diet is eating food which contains all the food nutrients. Eating food that lacks these nutrients may result in the body catching deficiency diseases. A disease is a particular illness in the human body. People should also take care of themselves to avoid getting injured. Accidents can occur at home or school at any time. It is important to be aware of such dangers in order to keep safe. Safety can be achieved by following rules both at home and school.

Teeth and their functions

Below is a model of human teeth. Observe it well. It will help you to know more about a human's teeth.

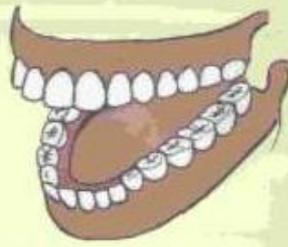


Figure 1.1 Model of human teeth

Types of teeth

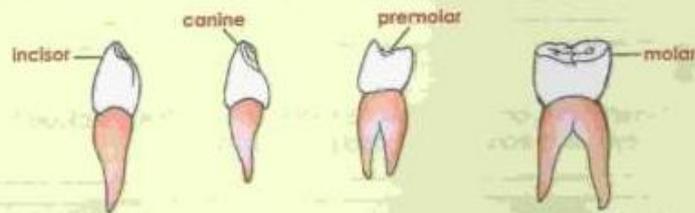


Figure 1.2 Types of teeth

There are four different types of teeth in human beings. These are the incisors, canines, premolars and molars. They do not look the same and they have different functions. An adult or a grown up human being has a total of 32 teeth. Teeth are very important because they help us to chew food and make it easier to digest. To **digest** is to break down food into smaller pieces.

Incisors

The incisor teeth are eight. They are found in front and at the centre of your mouth. Four are on the top and four are at the bottom. They are shaped like small chisels with flat but sharp ends. The incisors are used to chop, cut or bite your food. When a young one is growing, the incisors are the first to grow.

Canines

These are the four pointed teeth on either side of your incisors, two on top and two at the bottom. They are the sharpest teeth in your mouth. They are used for tearing and ripping food apart.

Premolars

The premolars are eight and they are next to the canines. Four are on the top and four are at the bottom. They are also called bicuspids. They are found on the

side of the mouth. The premolars have a different shape from the incisors and the canines. These teeth are bigger and stronger and they have ridges. They are used to crush and grind food.

Molars

These teeth are called primary molars but they are also known as deciduous molars. Adults have twelve molars. Six are at the bottom and six are at the top. The molars are stronger and wider than the premolars and they are stronger. These teeth are the toughest. They work with your tongue at the back of the mouth. They grind and mash up food so that it becomes ready for swallowing. **Swallowing** food is passing food from mouth to stomach.

By the age of twenty (20), adults develop more molars in the back of the mouth. There will be one in each corner of the mouth. These four are called the wisdom teeth and are used to chew tough foods. Some people have them pulled out by dentists to avoid crowding of the teeth. A **dentist** is a person who cares for diseases of the teeth.

Exercise A

1. Draw one of the incisors, canines, premolars and molars teeth.
2. Describe where the teeth are found in the mouth.
3. What are these teeth used for?
(a) incisors (b) canines (c) premolars (d) molars

Activity 1

Work in pairs.

1. Take turns to play the dentist and patient roles.
2. Do the following activity without touching each other.
3. Imagine that you are a dentist and you want to look at the teeth of your patient. One of you is a dentist and one of you is the patient.
4. Ask the patient to open his or her mouth so that you can see the teeth in his or her mouth.
5. Ask each other any question you like about the teeth.

Activity 2

Debate

1. The teacher will divide your class into four groups. Each group is called by the names of the teeth. Group 1 is called Incisors, Group 2 Canines, Group 3 Premolars and Group 4 Molars.

Unit 3 Diseases and prevention

In this unit you will:

1. identify two parasitic diseases
2. discuss the signs and symptoms of parasitic diseases
3. state breeding places for parasites
4. discuss preventive measures.

Flashback

Germ such as viruses, bacteria, protozoa and fungi cause diseases. How can we prevent ourselves from getting sick?



Key words

bilharzia malaria parasitic diseases protozoa

Parasite

A **parasite** is an organism that lives in or on another organism. It gains from the body where it is sitting. It is fed or nourished by the body where it is living. The body from which the parasite is feeding, does not gain from the parasite. Parasites can live in a human body and they are harmful. Eventually they cause parasitic diseases. The body on which the parasite is living is called a host.

Parasitic diseases

A **parasitic disease** is passed on or transmitted by a parasite. When someone is suffering from a parasitic disease, there are signs and symptoms that show on that person. Examples of parasitic diseases are malaria and bilharzia.

Malaria as a parasitic disease

Malaria is caused by a protozoa called plasmodium. A **protozoa** is an organism that lives as a parasite. The malaria parasite spreads through a mosquito bite. The infected female anopheles mosquito is the one that spreads malaria. Study Figure 1.15 showing a mosquito biting a human being.



Figure 1.15 Mosquito biting a human being

Once a person is bitten by an infected mosquito, the parasite enters the blood through the mosquito's saliva. The parasite burrows into the human skin and breeds, laying eggs in our skin.

Activity 9

What can you do to prevent mosquito bites?
Teacher brings a malaria educational video at the following site:-
<https://www.youtube.com/watch?v=7jYaxcBRgZQ>

Where do mosquitoes breed?

Mosquitos breed in un-moving water. Un-moving water sources are water sources that do not flow for example, ponds and lakes. They can also be known as stagnant water sources. We can also find stagnant water at home, when we have rubbish and empty containers lying around. When rain falls, sources of stagnant water increase, leading to a rise in the breeding areas for mosquitos.

Signs and symptoms of malaria.

1. Feeling weak
2. Failing to fall asleep or waking up several times during the night
3. Fever
4. Grinding teeth in your sleep
5. Having pain in muscles or joints
6. High temperature
7. Sweats
8. Vomiting

How to prevent malaria

We prevent the spread of malaria by:

1. Applying insect repellent

2. Sleeping under a mosquito net
3. Taking malaria prevention tablets
4. Wearing long clothes that cover your legs and arms
5. Covering pits and clearing rubbish to prevent the emergence of stagnant water where mosquitos breed.

Areas affected by malaria in Zimbabwe

Look at the map in Figure 1.16. The areas shown in red colour are high malaria areas. The area between the two areas in red colour are not malaria areas. There are zones or areas which are prone to malaria. It means people who live in these areas are likely to suffer from malaria. These are in the northern and eastern regions that border Mozambique and Zambia.



Figure 1.16 Areas affected by Malaria in Zimbabwe

Bilharzia as a parasitic disease

Bilharzia is a parasitic disease which is caused by parasitic worms called schistosoma. Bilharzia is common in ponds, streams and irrigation canals. Small animals called snails live in ponds, streams and even irrigation canals. Those snails transmit bilharzia. If a human being walks barefooted, he or she may get infected by the parasites that cause bilharzia.

A snail

A snail is a small animal that lives in fresh water. Look at the animal in Figure 1.17. Have you seen it before?



Figure 1.17 A snail



Figure 1.18 People doing different activities at a stream

Where do fresh water snails breed?

Snails breed in sources of fresh water like ponds, lakes, rivers, reservoirs and canals. The snail that carries the schistosomiasis breed in those fresh water sources.

Look at Figure 1.18 and answer the questions that follow.

1. Describe what the people are doing.
2. Are these people safe from bilharzia?
3. What can you do to help these people from getting the bilharzia disease?



Figure 1.19 People collecting water from a stream

How to separate different mixtures

Sieving

In this section, we are going to learn how to separate grain and chaff mixture through sieving. Grain refers to a seed of a cereal like rapoko or wheat. Grain can be separated, for example you can handpick wheat from rapoko. You can also sieve or filter the grain. In this case, the wheat seeds may not go through a sieve with small outlets. Therefore, we are able to separate the grains from the chaff.



Figure 2.2 Separating a mixture by sieving

Filtration

Another method of separating a mixture is called filtration. Filtration is a method that is used where we want to separate, for example, sand and water. Water can be filtered as we remove sand particles. For example, water can pass through filter paper leaving the sand behind.



Figure 2.3 Separating mixture by filtration

Evaporation

Evaporation is another method of separating mixtures. It is well used where we have a solution. The solution can be heated until the solvent turns into a gas. When a liquid turns into a gas we say it is evaporating. The other substance that cannot evaporate will remain behind. That way we will separate the substance that can evaporate from the substance that cannot evaporate. For example, if we have a mixture of sand and water, water can evaporate leaving behind the sand that cannot evaporate.



Figure 2.4 Separating mixture of sand and water by evaporation

Magnetism

This refers to the ability to attract other particles. There are some materials that are attracted by a magnet and there are others that are not. When we use magnetism, we can also separate materials. We use a magnet to attract for example, metal objects and those that are not metal will not be attracted. By taking that action, mixtures can be separated.

Activity 8

Demonstration

1. In groups of four, separate materials of the following kinds after the teacher's demonstrations of the four groups of substances below (a to d).
 - a) Salt solution through evaporation.
 - b) Grains from cereals by sieving.
 - c) Metal particles from wooden particles by using a magnet.
 - d) Sandy water by filtration.

After the experiments, each group takes a turn to explain to the whole class.

Activity 9

Group work

1. Explain the differences between sieving and evaporation.
2. Explain how magnetism can be used to separate materials.
3. How can filtration be used to separate materials.
4. Explain how evaporation is used to separate materials.

Summary

- Different materials can make up a mixture.
- A mixture can be separated.
- Mixtures can be separated in different ways.
- Sieving, filtration, evaporation and magnetism can be used to separate mixtures.

Exercise B

1. A mixture _____
 - A. is a substance that is made by combining or putting together two or more different materials
 - B. is a substance that is not made by combining or putting together two or more different materials
 - C. is a substance that forms when two or more elements chemically react
 - D. is a substance that attracts other particles.

Activity 2

1. In groups, name the months that make up each season.
2. From what you have learnt so far, in which season are you, give a reason why you say so?
3. Cut pictures of different seasons from magazines and paste them in your exercise book.

Exercise A

Answer the questions.

1. Which season is the hottest?
A. Hot dry B. Post rain C. Rain D. Cool dry
2. How many seasons does Zimbabwe have?
A. 5 B. 2 C. 4 D. 3
3. What is a season?
4. Name the season described below.
(a) Short days and long nights
(b) May and June are the coldest months
(c) Begins in May to mid August
5. Name the months that make up the summer season?
6. Which season has the following characteristics:
(a) Very hot days
(b) Dams fill up and most rivers start to flow
(c) The mornings and evenings are very cold?

4.2 Different agricultural activities are done in different seasons

There are different weather conditions in different seasons. In different weather we do different things the same with agricultural activities. Different agricultural activities are done during the different seasons.

The rain season (summer)



Figure 2.3 Tractor ploughing a field

- ploughing and planting summer crops for example, maize
- pest and disease control
- applying fertilisers
- weekly **dipping** of animals because ticks, lice and mites would be many.

The post rain season (autumn)



Figure 2.4 A combine harvester harvesting maize crop

- **harvesting** of summer crops
- preparing **fireguards**. A fireguard is a fire break.
- beginning of the planting of wheat, barley and oats.

The cool dry season (winter)



Figure 2.5 Farming under irrigation

- planting of winter crops like wheat, barley and oats
- harvesting of summer crops continues

- **constructing** frost **barriers** for **frost sensitive** crops such as tomatoes.
- **vaccinating** animals against **blackleg**. Blackleg is an infectious bacterial disease of cattle and sheep.
- **supplementary feeding** of grazing animals
- **dosing** of animals to kill parasites.

The hot season (Spring)



Figure 2.6 Tree with flowers blooming

- carrying of manure to fields by **communal farmers**
- dry planting of summer crops
- **shelling** and **thrashing** of grain crops.

Activity 3

Sing songs related to seasons.

Exercise B

Answer the questions.

- Planting and weeding of most crops is done during the _____ season.
A. rain B. cool dry C. hot dry D. post rain
- In which season is wheat planted?
A. Hot dry B. Post rain C. Rain D. Cool dry
- Which season in Zimbabwe has the most rain?
A. Rain B. Cool dry C. Hot dry D. Post rain
- Why do dipping of livestock increase in rain season?
- Why is supplementary feeding done in cool dry season?
- Which season has the following activities;
(a) Preparing fireguards
(b) Harvesting of summer crops
(c) Planting of wheat?

Activity 6

Discuss the dangers shown by diagrams in Figure 3.4 (a) and (b)

Causes of soil erosion

Erosion is caused by **agents** such as animals, water and wind. Agents are things that act to produce an effect. Wind, water and animals have an effect on the land.

Wind

The blowing away of top soil by wind causes soil erosion. When trees have been cut and soil remains bare, wind easily blows soil away leaving the area damaged. Some activities carried out by human beings and animals lead to bare soil that is then blown away by the wind. Figure 3.5 shows human activities that lead to wind erosion. Drought is also a common effect that causes wind erosion. A drought is when there is little or no rain in the rain season. This leads to wilting and dying of most vegetation which makes the land bare. When there are strong winds soil is then easily eroded. Another **factor** that leads to wind erosion is soil type. Sandy soils have loosely packed large particles, hence, they are easily eroded compared to clay and loam soil.

Cutting down of trees

People cut down trees to clear land for homes or farming. They also cut down trees to use as firewood. This leaves vast land exposed without plant cover. When there are heavy winds or rains the soil is eroded into rivers and streams.

Water

Water washes away soil when it rains. Loose soil is washed away into dams and rivers. Deep gullies, shallow dams and rivers are as a result of water erosion. Soil enters rivers and dams and covers them up. Steep slopes also lead to soil erosion. Water easily runs down steep slopes and ploughing on slopes leading to soil being eroded by water. Figure 3.6 shows the effect of water erosion.

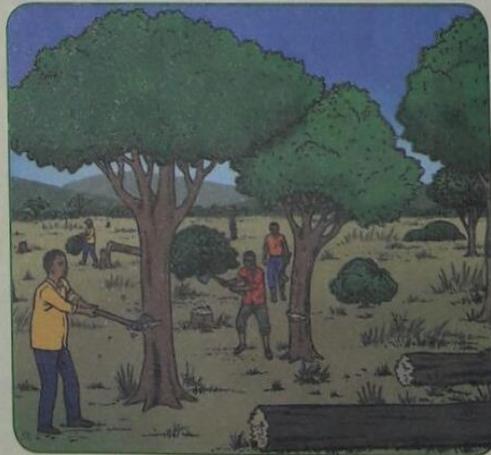


Figure 3.5 People clearing land for farming by cutting down trees.



Figure 3.6 A deep gully has developed between Hospital Road and Nemangwe Road in Gokwe

Poorly constructed roads

When roads are not constructed properly with a good drainage system this can lead to soil erosion. When it rains, flowing water erodes the road forcing the flow of water through weak joints.

Animals

Animals cause soil erosion by overgrazing. Overgrazing is the eating of plants or vegetation by animals and causing damage and leaving the ground surface bare. When people have large numbers of livestock in a small area this often leads to overgrazing. Overgrazing can lead to severe soil erosion as in the case of Figure 3.7 of Eastdate farm. Some huge animals for example, elephants pull down trees destroying the vegetation.



Figure 3.7 Overgrazing leads to soil erosion.

This also makes the soil loose and it is washed away by rain or wind. Animals walking on the same path for a long time make the soil loose by their feet. Animals that live under the ground also burrow loosening the soil particles. This makes soil break easily and get washed away.

Activity 7

Go for an educational tour to observe places that have experienced soil erosion.

Activity 8

1. Go for a field trip around your school.
2. What could be the cause of erosion in your school area?
3. Move around the school and refill the eroded areas.

Unit 22 Small livestock production

In this unit you will:

1. name the types of small livestock.

Flashback

What is livestock? Give 4 examples.



Key words

pelt livestock poultry

Livestock are domesticated animals that are kept for food, use or sale. Livestock include all domestic animals we learned about in Unit 20. In agriculture you can rear domestic animals for sale. This is called livestock production. Small livestock has many uses. They provide a good source of food, manure, clothes as well as medicines.

Cattle, horse, donkey and ostrich are big in size. In agriculture, production of small livestock is just as important as large livestock. Figure 6.6 below shows some examples of small livestock.



hens

rabbits

sheep

goats

Figure 6.6 Some small livestock

Activity 6

1. What do we benefit from each of the small livestock shown above?
2. Which one has more uses than others?

Poultry

All animals kept by farmers with wings and feathers and lay eggs are called poultry. Poultry are a good source of white meat, eggs, and manure. We also get money from selling the birds and their products. There are many birds that are in the group of poultry. These are chicken, guinea fowl, ducks, turkey, pigeons and quail birds.



quail bird



pigeon



duck



guinea fowl

Figure 6.7 Poultry birds

Activity 7: Practical Project

Make preparations to keep one group of the poultry birds either at school, home or both.

Rabbits

As of now in Zimbabwe, rabbits have three known uses. They are kept for meat, **pelts** and agricultural shows. A pelt is animal skin used to make blankets, hats and jackets. Rabbits are cheap to buy, easy to house and feed. They take about four months to mature. Rabbits can be fed using green vegetables and rabbit pellets. **Do not** feed rabbits using carrot tops and tomato leaves.

Activity 8: Project

Start a rabbit project at your school. If you already have one, feed the rabbits using the proper feed.

Exercise C

Answer the questions.

- Which animal is **NOT** a small livestock?

A. Rabbit	B. Poultry	C. Pig	D. Fish
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- Which one is **NOT** a use of poultry?

A. Draught/power	B. Meat	C. Manure	D. Eggs
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- Rabbits take ____ months to mature.

A. two	B. three	C. four	D. five
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- Which two vegetable plants should not be fed to rabbits?

A. Carrot tops and cabbage leaves
B. Tomato leaves and carrot tops
C. Rape and covo
D. Rape and tsunga
- State any three uses of rabbits.
- What are pelts?
- State any five examples of poultry.



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