


**The English language abilities of Grade R learners
in an English-medium South African classroom:
Is there a correlation between objective measurements and
teacher and parent perceptions?**

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The crest of the University of Stellenbosch is centered behind the text. It features a shield with a blue and gold design, topped by a red and white crest with a crown-like element.

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DECLARATION

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Agneta Alison Grové

December 2019

**‘EDUCATION IS THE MOST POWERFUL WEAPON WHICH
YOU CAN USE TO CHANGE THE WORLD.’**

- NELSON MANDELA

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ABSTRACT

English is the preferred language of learning and teaching in South African schools (Badenhorst & Van der Merwe, 2017). Whilst there are various factors working together to cause this default preference (see Heugh, 2008), in many cases, learners have not been adequately exposed to English by the time they enter the Foundation Phase, which results in academic difficulties for them (Lessing & De Witt, 2005). This thesis stems from my practical experience with the difficulties that English second language (L2) learners in English-medium classes experience. Their inabilities to express themselves easily and adequately and to progress sufficiently academically in a language that is not their mother tongue are difficult to address. They experience problems with listening, speaking, understanding, reading and writing, and require parental and educational support in order to succeed (Dixon & Peake, 2008).

In this study, the English language abilities of a group of 87 Grade R learners at two different schools were assessed with standardised child language assessment instruments. Within this group, there were first language (L1) speakers of English ($n = 20$) and L2 speakers of English ($n = 67$). Each learner was assessed individually with a test of receptive vocabulary, the Peabody Picture Vocabulary Test (Fourth Edition). Their expressive vocabulary was also assessed, by means of the Renfrew Word Finding Scale. The Renfrew Action Picture Test was used to assess the amount of information provided and grammar used during picture description. The learners' narrative skills (information conveyed during story-retelling) and sentence length when talking were also assessed, with the Renfrew Bus Story Test. Lastly, their school readiness on verbal levels was assessed, with the Kindergarten Language School Readiness Test (Second Edition).

Thereafter, the parents and the teachers were requested to assess the learners on the same language skills. The test results on the objective measures were then correlated with the ratings given by the teachers and the parents. It was found that there were large inter-correlations between the scores obtained on the objective tests. There were, however, discrepancies between the results of these tests and the ratings by the parents and teachers of the language abilities of the participants. Both groups (parents and teachers) rated the participants higher, indicating perceived better skills than what the objective tests indicated. As was found in several other

studies (see White, 2018; Lessing & De Witt, 2005), the English L1 learners outperformed the L2 learners on all language measures. There was furthermore a difference in scores between the two schools: The school with more English L1 learners outperformed the school with more L2 learners.

Reasons for the lack of correlation between the objective measurement of Grade R learners' language abilities and the teacher and parent ratings of these abilities should be further investigated. This is particularly important because most referrals of Grade R learners to speech-language therapists are made by teachers or parents, and therefore it is important that these adults have a good basis on which to decide whom to refer for language screening.

OPSOMMING

Engels is die voorkeurtaal vir leer en onderrig in Suid-Afrikaanse skole (Badenhorst & Van der Merwe, 2017). Terwyl 'n kombinasie van verskeie faktore verantwoordelik is vir hierdie voorkeur (sien Heugh, 2008), het leerders in baie gevalle teen die tyd wat hulle die Grondslagfase betree, nog nie voldoende blootstelling aan Engels ontvang nie, wat vir hulle akademiese probleme veroorsaak (Lessing & De Witt, 2005). Hierdie tesis spruit uit my praktiese ondervinding met die probleme wat Engels tweedetaal- (T2) leerders in Engels-medium klasse ondervind. Hulle onvermoë om hulleself maklik en duidelik genoeg uit te druk en om voldoende te vorder in 'n taal wat nie hulle moedertaal is nie, is moeilik om aan te spreek. Hulle ondervind probleme met luister, praat, verstaan, lees en skryf, en benodig ouer- en opvoedkundige ondersteuning om sukses te behaal (Dixon & Peake, 2008).

In hierdie studie is die Engelse taalvaardighede van 'n groep van 87 Graad R-leerders by twee verskillende skole geassesseer deur middel van gestandaardiseerde kindertaalassessering-instrumente. Binne hierdie groep was daar eerstetaal- (T1) sprekers van Engels (n = 20) en T2-sprekers van Engels (n = 67). Elke leerder is individueel geassesseer deur middel van 'n toets van reseptiewe woordeskat, die Peabody Prentewoordeskattoets ("Peabody Picture Vocabulary Test") (Vierde Uitgawe). Hulle ekspressiewe woordeskat is ook getoets, met die Renfrew Woordvindingskaal ("Renfrew Word Finding Scale"). Die Renfrew Aksieprentetoets ("Renfrew Action Picture Test") is gebruik om die hoeveelheid inligting wat voorsien is en die grammatika wat gebruik is tydens prentbeskrywing te assesseer. Die leerders se narratiewe vaardighede (inligting oorgedra tydens storie-oortelling) en sinslengte tydens spraak is ook geassesseer met behulp van die Renfrew Busstorietoets ("Renfrew Bus Story Test"). Laastens is hulle skoolgereedheid op verbale vlakke geassesseer met die Kleuterskool-taalskoolgereedheidstoets ("Kindergarten Language School Readiness Test") (Tweede Uitgawe).

Daarna is die ouers en onderwysers versoek om die leerders op dieselfde taalvaardighede te assesseer. Die toetsresultate van die objektiewe toetse is toe gekorreleer met die oordele van die onderwysers en ouers. Daar is groot interkorrelasies gevind tussen die puntetellings op die objektiewe toetse. Daar was egter teenstrydighede tussen die resultate van hierdie toetse en die ouers en onderwysers se oordele van die deelnemers se taalvaardighede. Beide groepe (ouers

en onderwysers) het die deelnemers hoër geskat en hulle vaardighede as beter geoordeel as wat die objektiewe metings aangedui het. Soos ook gevind is in verskeie ander studies (kyk White, 2018; Lessing & De Witt, 2005), het die Engelse T1-leerders beter gevaar as die T2-leerders op al die toetse. Verder was daar 'n verskil tussen die twee skole se punttellings: Die skool met meer Engelse T1-leerders het beter gevaar as die skool met meer T2-leerders.

Redes vir die gebrek aan 'n korrelasie tussen die objektiewe metings van die Gr R-leerders se taalvaardighede en die ouers en onderwysers se skattings, behoort verder ondersoek te word. Dit is veral belangrik omdat meeste verwysings van Gr R-leerders na spraak-taalterapeute deur ouers en onderwysers gemaak word, en dit daarom belangrik is dat hierdie volwassenes 'n goeie basis het op grond waarvan hulle kan besluit wie om vir taaltoetsing te verwys.

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1 Chapter One: Introduction and Orientation

1.1 Introduction

The purpose of this chapter is to describe and contextualise this study on the language skills of Grade R learners in English-medium classrooms. I begin by providing some background to child learning of a second language (L2) in South Africa, identifying the problem which was the rationale for conducting the research. The research question is formulated and situated within the field of linguistics. At the end of the chapter, core terms, abbreviations and concepts used in this thesis are defined.

1.2 Background of learning through English in South African schools

Language forms a central part of one's life, one's personal growth and one's interaction with others, and it gives access to learning and developing (Pepler, Menkveld, & Anker, 2004). A child's language development lays the foundation for his/her literacy development (Reese, Sparks, & Leyva, 2010). The South African government's drive to promote bilingualism (Republic of South Africa (RSA) Government Gazette, 2016) has become evident in the domain of education, yet English has emerged as the dominant language in the political, business and education sectors (Posel & Zeller, 2015).

English has been called the most 'successful' language ever, with 1,5 billion speakers worldwide (Crystal, 2003). However, English as a language in South Africa is not a uniform code; many different varieties of English spoken in South Africa have been identified, with differences in grammar, pronunciation and even vocabulary items between these varieties (Mesthrie, 2002). The English that is most frequently spoken in South Africa, so-called South African English, commonly varies across four different registers, which are reminiscent of the apartheid racial groupings, namely Black South African English, Coloured South African English, South African Indian English, and White South African English (Laas, 2002; Mesthrie, 2017). Bilingualism and multilingualism are not typical only for South Africa. Uganda, for instance, has 43 indigenous languages but also uses English as their academic language (Ssetandi, Southwood, & Huddleston, 2019). Bilingualism and multilingualism are also not limited to Africa as worldwide occurrence of this phenomenon is recorded in many Western countries too: Bilingualism in the USA is rated at 17%, versus 38% in Great Britain and 56% on the European continent (International Business Seminars, 2019). As many as 40%

of children do not have access to schooling in the language they speak at home (Walter, & Benson, 2012).

Children who still experience language difficulties at 5½ years (i.e., at Grade R level) typically show significant impairment in all aspects of spoken and written language when they start formal schooling (Stothard, Snowling, Bishop, Chipcase, & Kaplan, 1998). These children also fall further behind their peer group in terms of vocabulary growth over time, as their schooling career progresses. This lack of language proficiency has a significant influence on academic achievement – even up to tertiary levels (Sadeghi, Kashanian, Maleki, & Haghdoost, 2013). Mass failure of students in examinations can be ascribed to several factors, of which language of instruction, parents and teachers are three of the noted factors (Ogundele, Olanipekun, & Aina, 2014).

South Africa has 11 official languages, as indicated in the Constitution (Republic of South Africa (RSA) Government Gazette, 2016). The Bill of Rights (chapter 2 of the Constitution) further states that each person has the right to a basic education. The method of teaching in school is language-based, as language is the medium through which learning is accessed (Pepler, Menkveld, & Anker, 2004). In South Africa, after the Constitution was signed into law in December 1996 and gave official status to 11 languages, having access to services in one's language was to be a basic right. In July of 1997, a new language policy was introduced (Hornberger & Vaish, 2009), and English as a medium of instruction at school level became favoured above African languages. Whereas mother tongue education in the Foundation Phase was promoted by the policy, some parents chose for English-medium education even in the Foundation Phase (as referred to below). English is the dominant language for education, business, public office and research, and this implies that English is now also increasingly spoken in domestic settings in South Africa (Posel & Zeller, 2015). Despite this increase in the use of English in the home, many South African children are English Language Learners. "English Language Learners" is the term used to refer to children who enter the school system with no or very little proficiency in English and who receive their education through medium of English. This means that they are taught in a language that is mostly unfamiliar to them (White, 2019). Underdeveloped linguistic skills are seen as the primary contributing factor to weak academic performance among South African children (Alexander, 2005; Brock-Utne & Skattum, 2011). Not having good proficiency in one's language of learning and teaching can thus affect one's academic performance severely.

In order to enter grade R, children have to be five years old and be turning six years old during the school year. Encouraging children to attend Grade R, in combination with providing quality education, will set South African learners on a path to good academic achievement. This, however, should be provided in the early stages of development (Mlachila & Moeletsi, 2019). Intervening as early as possible where there is a risk of academic failure is a cost-effective solution in a resource-constrained society. The focus in this first phase of school is on mathematics, life skills and languages (home language and first additional language). This is when the basic reading, writing and spelling skills are taught. It is during this phase that English as an additional language is introduced to children who are not receiving their schooling through medium of English¹; for English Language Learners, Grade R is the year in which they are introduced to the language that will be their academic language for the rest of their schooling (White, 2019). After Grade 3, mother tongue education is no longer compulsory. That said, many L2 learners choose to do all their subjects in English as a medium of instruction even from Grade R onwards. Although English is the home language of only 8,6% of South Africans (Statistics South Africa, 2012), it has nevertheless become the preferred language of learning and teaching in South African schools (Hornberger & Vaish, 2009). Many mother tongue speakers of African languages place their children in English-medium schools (Hornberger & Vaish, 2009). Amongst the reasons supplied for this placement is that English is seen as a language of power and the educated, English is authoritative, and English appears to be dominant in the workplace (Hornberger & Vaish, 2009). This implies that most South African learners are taught in English as second language (EL2) or English as additional language. For instance, in an undated report by the Department of Basic Education, it was reported that in 2010 84% of South African learners in mainstream schools spoke an African language as home language, but that 66% of South African learners in mainstream schools had English as language of learning and teaching, and that although only 7% of the learners had English as home language, English was the preferred language of learning and teaching for 64% of these learners. This can have a negative effect on their academic progress if they are not proficient in English, as stated above. There are many factors influencing the success of L2 acquisition apart from intelligence, such as motivation and general abstract problem-solving

¹ Empirical evidence indicates that children who do not have English as their first language and who are taught English as a subject in Grades 1 to 3, perform better in English in Grades 4 to 6 than do those learners who do not have English as their first language and who are taught all their subjects through medium of English from Grade 1 onwards (Taylor, & Coetzee, 2013).

skills (Bley-Vroman, 1989), attitude, age, cognitive style and personality (Khasinah, 2014). Children need to have sufficient language skills upon entering a formal schooling situation to allow them to access the curriculum adequately. They should have a large and varied vocabulary system, understand and use complex sentence structures, understand abstract questions, be able to follow the rules of conversations, be able to recognise some sounds and letters, and know that the printed word has meaning (Kermond, 2008).

South Africa has the worst educational outcomes of all middle-income countries that participate in cross-national assessments, even performing worse than many lower-income African countries (Spaull, 2013). The South African education system is described as “inefficient, severely underperforming and egregiously unfair” (Spaull, 2013). In the South African school system, education is compulsory from seven years at Grade 1 level. Children are encouraged to attend a pre-school or Grade R/Grade 0 in the year in which they turn six to prepare them for the formal Grade 1 level where the three years of the Foundation Phase start. During the Foundation Phase, Grade 1 to 3 children learn basic skills such as reading, writing and arithmetic. South African Grade R learners, who are preparing to start school, however, have bleak prospects, as many of them lack adequate language proficiency and are thus at risk for early literacy developmental problems (Lessing & De Witt, 2005). It takes learners a minimum of four years of exposure to a language (and in some cases up to eight years) before they catch up with first language (L1) speakers of that language in terms of structure of language, vocabulary, syntax, higher levels of function within the language, pragmatics, etc. (Collier, 1987). This entails the abilities to listen, speak, read, write and having an inherent knowledge of how to use the language. In South Africa, learners start the Foundation Phase (i.e., enter Grade R) in the year in which they turn six years. Grade R is the year before formal schooling commences and has been part of the General Education Training Band since 1998 (Janse van Rensburg, 2015). The teaching of reading, writing and spelling is started formally in the subsequent school year, in Grade 1. Language abilities have been shown to be a good predictor of academic progress, and especially of reading abilities (Fricke, Bowyer-Crane, Haley, Hulme, & Snowling, 2013). However, many English Language Learners who receive substantial English input for the first time upon entering Grade R will be in Grades 4 to 8 by the time they are as proficient in English as their English L1 peers are. This has a serious impact on their abilities to read, as can be seen in the educational statistics of 2012 and 2014 where a worsening in reading abilities has been recorded (White, 2019). In 2012, 72% of Grade 2

learners were reading on or below average, and in 2014, only 66% of learners in Grade 3 were reading on an acceptable level (Department of Basic Education, 2014).

Only about a third (35%) of all Grade 3 learners in South Africa achieve the standardised levels of literacy and language skills required in their grade (Marais & Du Toit, 2012). The same has been found for Grade R learners in South Africa, where only 35% reached the minimum requirements for the development of literacy and language in their grade (De Witt, 2009). This is an indication that language and literacy problems are already evident at pre-school level and remain intact as the learners' school careers progress. Unfortunately, the gap sometimes even widens as children progress through school (Murnane, Sawhill, & Snow, 2012).

More than 50% of South Africans are deemed poor (Statistics South Africa, 2019). Poverty in South Africa can, however, not be given as the main cause for learners' poor academic performance because, even in comparison to poorer countries, such as Tanzania, Kenya and Swaziland (Joubert, 2019), South Africa delivers the worst performance, compared to countries in Asia, North America and Europe (Scheichler, 2009). The biggest problem in the education system is probably the "one size fits all" approach used despite not all children entering the system with the same background and/or abilities (Joubert, 2019).

Teachers are regarded as the most important educational resource and as the facilitators of learning (Ogundele, Olanipekun, & Aina, 2014). However, South Africa has an alarmingly high rate of under-qualified teachers. In 2017, there were 5,139 teachers who were either unqualified or under-qualified for the grade level of the learners whom they were teaching (Savides, 2017). Intense training and development of our teachers is vital to the success of the education system and also to the success of the learners. Children's under-developed language skills, however, remain the most important factor in the poor academic performance of the learners (Brock-Utne & Skattum, 2011).

Oral language proficiency is the best predictor of academic success when IQ scores are not taken into consideration (Gray, Sasaki, Mcentire, & Larsen, 1980), and language problems on a pre-school level remain the best predictor for future academic challenges (White, 2019; Mcleod, Harrison, Whitford, & Walker, 2016; Gray, Sasaki, Mcentire, & Larsen, 1980). Poor language performance will not only affect reading abilities but also Mathematics (Ogundele, Olanipekun, & Aina, 2014). Language performs three basic functions in education, namely to

inform, express and direct (Ogundele, Olanipekun, & Aina, 2014). Language can thus be described as the vehicle of learning, and proficiency in the language of instruction (in the case of the majority of South African schoolchildren, English) facilitates learning (Aina, Ogundele, & Olanipekun, 2013). This implies that it remains essential to assist L2 learners of English to progress and to improve their English proficiency levels to adequate levels before the onset of formal schooling. L1 learners outperform L2 learners on all language measurements regarding grammar, understanding and usage, and vocabulary size. Many children who grow up in a bilingual or multilingual environment present with slow retrieval of words (Young, 2016). Early language growth and development in bilingual homes can be less than optimal if there is inadequate exposure to the languages concerned, which influences the children's language comprehension (Espinosa, 2012). In order to combat these language problems, concerns about the language abilities of young children should be raised early by the parents and/or the school so that early intervention, at the latest in Grade R, can be rendered before formal schooling (Grade 1) commences.

The combined effect of home and school emerges as the major contributor to poor academic success and performance (Abdallah, Fuseini, Abudu, & Nuhu, 2014). The average age at which most parents start noticing speech and language problems in their children is between two and 3½ years (Anderson & Freebody, 2007). Parent concerns and parent reporting and insights should receive more attention (Glascoe & Dworkin, 1995). Children from low socio-economic families typically start their schooling career with fewer skills than those from middle or high socio-economic groups, and often start on a path of low performance (Hauser-Cram, Sirin, & Stipek, 2003). It appears that underperformance in terms of language is often the result of a mismatch between the registers learnt at home and those required in education (Kotler, Wegerif, & Levoi, 2001). The question arises as to whether such language problems are indeed noticed in an English-medium classroom in which many learners are so-called English Language Learners. A second question that arises is whether the levels of awareness and concern of the parents and the school about the child's language abilities are aligned with objective measurements used to determine school readiness of the child in terms of speech and language abilities. It appears that Grade R teachers are indeed already able to predict baseline and outcome literacy levels expected in Grade 1, with some accuracy; there is, however, a wide range of variance between teachers in terms of the levels of support offered and, the value and appropriateness attached to early intervention (Webster & Feiler, 1999).

1.3 Research questions

Considering the background information provided above and the problem statement developed, the following research questions arise:

RQ1: Are the language problems of Grade R learners noticed by the parents and school teachers soon after the learner's entry into Grade R?

RQ2: Are teacher and parent reports about Grade R learners' language confirmed by objective measurements of child language and of school readiness in terms of language abilities?

1.4 Outline of the thesis

The aim of this introductory chapter was to describe the context in which the research problem originated, and this then serves as a rationale for conducting the present research. The research questions are thus formulated and situated within the South African context. In Chapter 2, the literature review chapter, information underpinning the relevant concepts as they are found in related literature is explained. The purpose here is specifically to allow for relevant observations and conclusions to be made. Chapter 3 contains the research methodology. The aim of this chapter is to describe the methodology followed in this specific research project. The design, aims and sub-aims are described, as are the different methods used to reach the specific aims. The participants, selection process, procedures, data collection, instruments and analysis are also explained. Future researchers can thus duplicate the study should there be a need to do so, changing one or more of the variables. In Chapter 4, the collected and processed data are presented and interpreted. Results are graphically presented or tabulated where possible and then discussed. The final chapter presents conclusions based on the results. The implications of the different findings are discussed. A critical evaluation of the study is also included, as well as recommendations for future research.

1.5 Terminology

Below, a list of the relevant terminology used in this study is presented alphabetically with an explanation of each term.

Analysis of Variance (ANOVA): This term is used in the statistical analysis of some of the data in this study. ANOVA is a quantitative statistical method used to analyse the variance

between means. In other words, ANOVA is used to detect statistically significant variances between related means (Dallal, 2013).

Bilingual: This term refers to a person who speaks more than one language. In this thesis, no distinction is made between bilinguals and multilinguals. Both are referred to as “bilingual”. Furthermore, no distinction is made here between simultaneous and sequential bilinguals.

Correlation coefficient: This is a method used whereby statistical significance is shown through a numerical value. A correlation of 0.00 indicates the absence of a relationship and the closer the correlation is to 1.0 or -1.0, the stronger the relationship is (Hopkins, 2002).

English First Language (EL1): For the purposes of this thesis, this means that English was the first language acquired by the child, and that the child comes from a home in which English is the only or dominant language.

English Second Language (EL2): This term refers to English having been acquired second by the child, after first starting to acquire another language. The English language learners in this study did not come from homes in which English was the dominant language; in some cases, English was never or rarely spoken in the home.

First language (L1) user: This is a term used for children who attend a school at which the medium of instruction is the first language that they acquired and who use this language at home and at school.

Grade R: In the South African context, this is a term used for a specific pre-school class (mostly attached to a formal school) in which children need to be prepared for the formal academic and other demands awaiting them in Grade 1 in the following year.

Kindergarten Language School Readiness Test (Second Edition) (KLST-2): This standardised test was developed by Gauthier and Madison (1978) and is used to screen and assess a child’s abilities to use language in such a manner that the child can be described as school ready. The score on the test is reflected as a stanine after it is compared to the child’s chronological age group.

Multilingualism: This refers to the ability of a person to use multiple languages, although the levels of capacity and competency might differ for the different languages.

Peabody Picture Test of Vocabulary (Fourth Edition) (PPVT-4): This is standardised test developed by Dunn and Dunn (2011) used to determine the receptive vocabulary score of a child in this study. The score is compared to the child's chronological age group and then reflected as a stanine.

Renfrew Action Picture Test - Grammar: This is part of a subtest of the Renfrew Language Scales (Renfrew, 2016), namely the Renfrew Action Picture Test. It assesses a child's abilities to use grammar applicably when describing a picture. The child's responses are analysed and compared with standardised norms according to age group. The obtained score is then indicated in mental age, which is then compared to his/her chronological age.

Renfrew Action Picture Test - Information: This is part of a subtest of the Renfrew Language Scales (Renfrew, 2016), namely the Renfrew Action Picture Test, used to determine the amount of information the child provides when describing an event or a picture (as provided in the test). The individual's results are compared to age group norms, based on the age when certain language developments should take place. The score is reflected as a mental age, which is then compared to his/her chronological age.

Renfrew Bus Story - Information (RBSI): This is part of a subtest of the Renfrew Language Scales (Renfrew, 2016), namely the Renfrew Bus Story Test, which is a standardised test that was used in this study. It assesses the child's ability to retell a story (about a bus), which was told to them with the assistance of pictures. It judges the amount of information provided by the child in reconstructing the story. The child's scores are reflected as mental age (according to when certain developments should take place) and are then compared to his/her chronological age.

Renfrew Bus Story - Sentence Length (RBSSL): This is part of the Renfrew Bus Story in which the child retells a story, and it assesses the child's average sentence length. In this study, it was used to make deductions regarding levels of language competence. The child's scores are reflected as mental age (according to when certain developments should take place) and are then compared to his/her chronological age.

Renfrew Word Finding Scale (RWFS): This subtest of the Renfrew Language Scales (Renfrew, 2016) is used to assess a child's expressive vocabulary skills, specifically their ability to name objects/pictures. The scores obtained are compared to age group norms. The child's scores are reflected as mental age (according to when certain developments should take place) and are then compared to his chronological age.

School readiness: In this thesis, this is a term used to describe a child's language abilities which are deemed necessary to cope with the demands of an academic Grade 1 surrounding. In this context, it was specifically used to judge the child's verbal reasoning, generalising, description of differences, insight into pictures, and ability to tell a story.

Second language (L2) speaker: In the context of this study, this is a term used to describe a learner who has acquired one language first but is now being schooled in another language (in this case, English) and who speaks a different language at home than at school.

2 Chapter Two: Literature Review

2.1 Introduction

The Constitution of South Africa in 1994 mandated the appointment of a Pan South African Language Board, which was to have the specific task to “promote, and create conditions for, the development and use of all official languages” (Republic of South Africa (RSA) Government Gazette, 2016). As stated in Chapter 1, the Bill of Rights (chapter 2 of the Constitution) further states that each person has the right to a basic education. The United Nations Committee on Economic, Social and Cultural Rights explains that such rights are subject to four A’s: availability (of teachers and other resources), accessibility, acceptability (of the quality of the teaching), and adaptability (of the education). The literature reviewed in this chapter will indicate that although a basic education is available, it is not always available in the learner’s L1 – and where it is, parents may choose for English, instead of the L1, to become their child’s language of learning and teaching. Whereas this is not necessarily problematic in all contexts, it does appear to be so in the case of many learners in South African schools.

The quintile system in South Africa was introduced in 2005 under the South African Schools Act amendment. Under this system, schools are divided into five groups (or quintiles) based on the relative wealth of the surrounding communities. Schools in the poorest communities are classified as Quintile 1 and in the wealthiest communities as Quintile 5. Quintiles 1 to 3 are not allowed to charge school fees and are called “no-fee schools”. Instead, they receive a minimum amount of funding per learner, which is paid to them by the Department of Education. Quintile 4 schools receive approximately half of what Quintiles 1 and 2 schools receive (R588 per learner), and Quintile 5 schools receive the least, at R203 per learner. Provincially, 92% of learners in Limpopo, 82% of learners in the Eastern Cape, 41% of learners in the Western Cape, and 45% of learners in Gauteng pay no school fees and thus attend Quintiles 1 to 3 schools (Ally, & McLaren, 2016). It should be noted that if a child attends a no-fee school (Quintiles 1-3) this does not imply that the parents have no educational expenses, because transport, stationery, school uniforms, etc. still need to be paid for by the parents (Roux, 2003). In fact, the General Household Survey found that 24% of people aged seven to 18 cited “no money for school fees” as the main reason for not attending an education institution in 2014 (Ally, & McLaren, 2016). Furthermore, the government has a direct say in all expenditures of Quintiles

1, 2 and 3 schools, and these schools and governing bodies are not allowed to fundraise at all, and thus no additional teachers can be employed and no additional resources or equipment can be bought to ease the educational burden of the government-employed teachers and/or the learners. This might be one of the reasons that the gap in the educational standard keeps widening (White, 2019). The development of no-fee school policies has resulted in an increase in learners who do not pay school fees, from 3% in 2006 to 65% in 2014 (Statistics South Africa, 2014). The poorest 75 to 80% of learners in South Africa depend on dysfunctional public schooling and often achieve poor outcomes, whilst the wealthiest 20 to 25% of learners enrol in private schools and functional public schools and achieve better academic outcomes (Mlachila, & Moeletsi, 2019). Learners attending fee-charging schools are two to four times more likely to qualify for university than learners attending no-fee schools (Spaull, 2013). It thus appears clear that, for instance, in Limpopo less than 8% of learners have a chance to qualify for university. Furthermore, less than 5% of learners in South Africa who start primary school end up with a university qualification (Mlachila, & Moeletsi, 2019).

2.2 Language delay upon entering school

It has been accepted worldwide that education must focus primarily on the Foundation Phase to deliver success (Joubert, 2019). In the South African education system, learners typically enter Grade R (their reception year) at the age of five and thus turn six in this year. Grade R is part of the Foundation Phase, which spans from Grade R to Grade 3. The focus in this phase is on mathematics, life skills and languages (home language and first additional language). This phase is thus where initial or basic reading, writing and spelling are taught (White, 2019). The battle of education is usually won or lost at primary school (Mlachila, & Moeletsi, 2019).

Because of the diversity in terms of the mother tongues of learners in South Africa, many learners enter school with insufficient proficiency in English, which is to become their language of academic instruction and performance. The *Longman Dictionary of Applied Linguistics* (Richards, & Schmidt, 2013:252) describes L2 acquisition as “the process by which people develop proficiency in a second or foreign language”. These children are still becoming bilingual, using both their mother tongue and English, but typically in different domains: the mother tongue at home and English at school. Despite insufficient language skills in English as a L2 upon school entry, English is becoming an increasingly popular choice of parents for their children’s language of learning and teaching. As stated in Chapter 1, an increase in Grade

1 English Language Learners has been noted, from 3,3% in 1996 to 37% in 2011 (Posel, & Zeller, 2015). The majority of South African learners, predominantly Black, do not have a good command of the English language even though English is the primary medium of instruction in schools (Mlachila, & Moeletsi, 2019). After the dismantling of apartheid in 1994, the South African education system still needs serious remediation as discrepancies between provinces, schools and rural versus city schools are still very evident (Van der Berg, 2007). In 2016, the South African education system was rated the worst performing of a total of 50 participating countries based on the literacy attainment of its learners (Howie, et al., 2016). South African Foundation Phase learners are thus not progressing satisfactorily when they enter the higher grades of this phase.

A good vocabulary is seen as a pre-requisite for academic progress (see Hirsh & Nation, 1992). Children from higher socio-economic status homes know twice as many words than those raised in poor homes. Adult L1 users with high levels of education have a vocabulary of around 17 000 base words. This implies a development rate of two to three new words per day (Goulden, Nation, & Read, 1990). By the age of five years, children already have a vocabulary of thousands of words in their L1, and they have mastered the sound system and the grammar of the language (Hoff, 2009). The way language develops appears to be very similar across children and even across languages (but note that this conclusion is based mostly on languages studied in developed countries). The rate at which this development takes place, however, varies widely among children (Hoff, 2009), and the pattern of language development and the errors that L2 learners make in the process of learning the language is different to those of L1 learners (MacSwan, & Pray, 2010).

Language competence is seen as a good predictor for academic success (Hoff, 2009; Owens, 2013), and the main predictor of later academic problems for pre-schoolers is their language skills (Forget-Dubois, et al., 2016). Language delay upon starting school has been associated with poorer literacy, learning and general education outcomes, poorer grades, and difficulties in the social use of language, which often results in peer group problems and other behavioural difficulties (Kermond, 2008). There is a strong relationship between oral language abilities and school readiness (Gray, Sasaki, Mcentire, & Larsen, 1980). Vocabulary is very important for reading with meaning, and a limited vocabulary in one's language of learning and teaching will result in literacy problems (Hirsh & Nation, 1992).

2.3 Language at home versus language at school

The quality of teaching English in the Foundation Phase needs to be improved. Many of South Africa's learners do not use English as their language of communication in their homes. Additionally, support material to teachers and learners in the transition to using English as the medium of instruction needs to be expanded (Mlachila, & Moeletsi, 2019). The type of English needed to perform in an English-medium classroom and to understand English-language textbooks and complex English utterances is not merely a basic English (basic interpersonal communication skills) but a more sophisticated and higher order/complex English (Cummins, 1984). To develop good vocabulary skills in learners, teachers should be trained to facilitate vocabulary growth and to ensure that vocabulary skills are on the desired level to meet the grade standards (Goulden, Nation, & Read, 1990). The process of developing vocabulary is not always effortless for L2 learners, and assistance and explanation are often needed (Bley-Vroman, 1989). The typical pattern of language acquisition as seen in English L1 learners is often not seen in English L2 learners. The language input that the child receives from his home environment has a definite and direct influence on language – especially on syntax skills (Nelson, 1977). However, the child's own abilities in his uptake of the input also play a significant role in language acquisition (Snow, Met, & Genesee, 1989).

Young children's language skills are important for interpersonal relationships but also for academic success (Hoff, 2009). Although it is difficult to determine the exact nature of the relationship between language and academic success, it is not disputed that there is indeed a relationship (Graham, 1987). There are many factors that influence L2 acquisition, such as motivation, attitude, age, intelligence, aptitude, cognitive style, and personality (Khasinah, 2014). Motivation can be instrumental in nature, such as rendering functional advantages (e.g., needing the language to pass an entry test) or integrative in nature, the latter stemming from an interest in the people who use the language and their culture or, simply put, helping one to speak to people of the target culture (Richards, & Schmidt, 2013). Specific home characteristics (such as socio-economic status and exposure to reading) were also found to have an impact on learning (Forget-Dubois, et al., 2016). If parental behaviour in terms of interaction can be shaped, better language skills in children would follow (Topping, Dekhinet, & Zeedyk, 2011). Intervention by means of a home program and parent training has positive outcomes on reading abilities and the development of vocabulary and reading comprehension (Nix, Bierman, Motamedi, Heinrichs, & Gill, 2018). The home and the school in combination emerge as the

major contributor to positive or poor academic performance (Abdallah, Fuseini, Abudu, & Nuhu, 2014).

Grade R teachers within the classroom thus have an important role to play in children's language development. Not only do they facilitate learning, but they are also seen as the gatekeepers to the rest of the Foundation Phase as they have to evaluate school readiness. Qualified teachers will help make teaching in primary schools effective (Alexander, 2005). In South African contexts, there are many challenges that teachers face - especially in more rural settings - such as reading problems in their learners, the need for differentiated teaching, a lack of resources, and the language of learning and teaching differing from the children's L1s. Factors influencing a teacher's performance within the classroom include the teachers' L1, age, qualifications and experience (Moodley, Kritzinger, & Vinck, 2016). Poor education unfortunately cannot lift learners out of poverty (Condy, & Blease, 2014). Teachers' abilities to judge learner performance are extremely important, but findings suggest that teachers find it easier to judge high performers in reading than average or low performers (Begeny, Krouse, Brown, & Mann, 2011). It is also important to note that further research is needed on standardising procedures of assessing, and even the procedures to audit assessments should be standardised (Cronjé, 2009). It is a universal problem - not only found in South Africa - to set standards so that assessment programs intended to measure the learner's proficiency will not only measure accurately within the school system, but even within a wider context (Guskey, Swan, & Jung, 2011).

Teacher bias and stigmatising result in many teachers expecting less from children from low socio-economic status groups (Hauser-Cram, Sirin, & Stipek, 2003). The teacher's low expectations can have negative implications for learners of racial and ethnic minority groups (Riley, & Ungerleider, 2008). Not all teachers find it easy to work with diverse groups in such a manner that it will result in a positive outcome for all learners (Le Roux, & Newmark, 2011). This is found to have significant bearing on lowered expectations of the teachers of these children, especially in early school grades (Hauser-Cram, Sirin, & Stipek, 2003). This self-fulfilling prophecy can have a serious impact on the learner's progress (Smith, Jussim, & Eccles, 1999), because high expectations of teachers shape the learning process and contribute to high student achievement (Ketsman, 2012). When teachers manage to match their teaching styles to learners' learning styles, the effect is more successful learning, and it also creates more interest in the language (Aceh, 2014). Teacher preparation and professional development

programs to help teachers bridge the intercultural differences between themselves and their learners' families are suggested to maximise learner progress (Hauser-Cram, Sirin, & Stipek, 2003). Teachers also need assistance in training learners with different vocabulary learning approaches (Goulden, et al., 1990; Nation, 2003). It has been found that providing children with an adult 'talking partner' significantly improves their language levels (Kotler, Wegerif, & Levoi, 2001). The Kotler et al. (2001) study made use of an individual approach (one adult per child) to the enhancement of language in a classroom setting. The question, however, arises as to whether one adult speaking partner per class will be sufficient, given that large class sizes in the Foundation Phase are not uncommon in South Africa, with the Eastern Cape and Limpopo Provinces being the most overcrowded in this regard: here, 10 to 15% of Grade 1 to 3 learners are in extremely large classes (more than 60 learners per teacher) (Spaull, 2016; Snow, Burns, & Griffin, 1998). As stated by Snow, Met, and Genesee (1989), "the abilities and opportunities of teachers to closely observe and facilitate the literacy learning of diverse groups of children are certainly influenced by the numbers of children they deal with". Also note that there is evidence that hearing a language from multiple speakers (in this case, hearing English from people other than only the classroom teacher) benefits word recognition and word production (Richtsmeier, Gerken, Goffman, & Hogan, 2009; Singh, 2008).

2.4 Early identification of and intervention for language problems

Early intervention for children with oral language difficulties is effective and has a direct and positive influence on reading comprehension (Fricke, Bowyer-Crane, Haley, Hulme, & Snowling, 2013). Early identification and rehabilitation of language-related difficulties might improve the self-esteem of the learner and even their social relationships at home and at school (Lindsay, & Dockrell, 2000). Identifying the learners at risk for reading difficulties and providing early and preventative assistance and intervention is thus extremely important (Olivier, Anthonissen, & Southwood, 2009). This emphasises the value of the parent and the teacher in the education process and the development of EL2 learners' language abilities. L2 users do not necessarily automatically acquire sufficient oral skills to equip them for early literacy development (Lessing, & De Witt, 2005). The relatively poor educational performance of children with English as an additional language is a serious challenge (Kotler, Wegerif, & Levoi, 2001). Children who have significant language difficulties at 5½ years later have significant delays in all aspects of spoken and written functioning, as well as reading comprehension, and these children also fall further behind their peer group in vocabulary

growth over time, as their schooling career progresses (Stothard, 1998). The contrary is also true – when children’s language problems are solved by 5½ years, their literacy development, as school progresses, is perceived as normal (Bishop & Adams, 1990; Basson, 2019).

For L2 children to be able to read and understand graded readers, they need at least 3 000 of the most frequently used words as a baseline vocabulary, which often does not match the actual number of words that L2 learners know, especially in more rural communities (Ssetanda, 2019). Poor academic and reading performance in English is often due to a limited English vocabulary (Ssetanda, 2019). L1 learners can effortlessly learn up to 12 new words per day after only encountering each word once (Gleitman, & Landau, 1994), but this is not necessarily the case for L2 learners, who do not always master the language without effort and who typically need assistance and direct instructions to learn new words (Bley-Vroman, 1989). It is further noted that L2 learners perform less well on reading tests, especially reading comprehension (Aram, Ekelman, & Nation, 1984). As stated above, children who start school with language delays experience significant difficulties in all aspects of spoken and written language (Conti-Ramsden, Knox, Botting, & Simkin, 2001). Even children whose language problems are resolved by the time they enter school may still have literacy acquisition problems. Children from a low socio-economic background form a significant part of the school-going population, as 47% of South Africans live in poverty (Armstrong, Lekezwa, & Siebrits, 2008). As stated in Chapter 1, available data suggests that language proficiency has a significant influence on academic success, even up to university level (Sadeghi, Kashanian, Maleki, & Haghdooost, 2013). It is thus important to diagnose and treat any language delay as early as possible, to limit the impact that such a delay can have on a child’s academic career. It has become evident that the gap between poor and middle-class children widens over time, and poor children with language problems often fall behind in their grades (see Cunningham, & Stanovich, 1997). Poor academic performance due to limited English language proficiency is not only found in South Africa but in other parts of Africa and the world as well. Language proficiency in English directly influences the learner’s performance in an English-medium educational system (Ajayi, 1988). The urgency to identify problems early is not only because of the widespread underperformance but also because remediation is most possible and most cost-effective in young children (Spaull, 2013). By the age of eight years, large inequalities are already visible in the outcomes of learners of L1 and L2 (Klop & Tuomi, 2007).

Early language learning involves the acquisition of two distinctly different skills, namely: Basic Interpersonal Communication Skills (BICS) and Cognitive Academic Language Proficiency (CALP) (Cummins, 1984). BICS refers to the skills that are necessary to learn and live in everyday life and is an adjustable process which evolves naturally and also incorporates non-linguistic support to the process of verbal communication. BICS refers to social language - for instance, language used in interaction, communicating with friends or mingling on the playground. CALP, by contrast, occurs in situations where context is less evident and where higher order cognitive skills are required of the child (Cummins, 1984). In other words, CALP includes language used in textbooks and classrooms, which consists of more syntactically complex utterances and more formal vocabulary, with less context to assist the child in comprehension (Baker, 2006). Children thus need both BICS and CALP to succeed socially and academically at school, and therefore the development of both is important.

As explained above, the lack of language development can later effectively preclude learners from following the curriculum on higher grade levels. Intervening early to prevent, diagnose and correct language-related academic difficulties thus remains essential. It was found that proficiency in English early on in a child's school career was related to improved academic results in English-medium educational systems, as compared to children whose English proficiency remained low (Halle, Hair, Wandener, McNamara, & Chien, 2012). It is particularly noteworthy that children's cognitive and language ability in the preschool years can predict their future academic success. Research confirms that the English proficiency of English Language Learners in kindergarten predicts their academic success up to Grade 8 (Mancilla-Martinez, & Lesaux, 2012).

Early identification can thus lead to early assistance. Enrichment programs that have social-emotional and language-literacy components benefit the learners, and academic improvement is then visible (Sasser, Bierman, Heinrichs, & Nix, 2017).

2.5 Teacher effectiveness in the learning process

Whilst almost 20% of the South African budget is spent on education, most of the country's increase in educational spending has been aimed at increasing access and inputs, but quality has significantly lagged behind (Mlachila, & Moeletsi, 2019). The South African education system does not get favourable reviews: Educators in the country are described as unmotivated,

often absent from school and not knowledgeable about the material they are teaching (Tswana, 2019). In fact, it was found that 20% of absenteeism took place on Mondays and 33% on Fridays at month end (Tswana, 2019). Low educational achievement contributes to low productivity growth, and high levels of poverty, unemployment, and inequality (Mlachila & Moeletsi, 2019). For many children, Grade R will be their first encounter with English as a language. They might have a teacher from another culture who speaks another language and who knows little or nothing about the learner's cultural background. The proficiency of the teacher in English is important as this directly influences their proficiency as teacher within an English-medium education system (White, 2019). Teachers, however, often know very little about language development and how to facilitate L2 growth. Overcrowded classrooms - especially in Quintiles 1 to 3 schools - is a definite problem. Although research does not fully support that only decreasing the size of the class (number of learners) will always improve quality of education, there is a definite recommendation to move towards smaller classes (Spaull, 2016). The prescribed ideal maximum class size in South Africa at Foundation Phase level is 35. Despite this recommendation, only one province in South Africa comes near to this, with 43% of classes below 35 pupils; four other provinces only meet this criterion with a third of their classes; and an additional four provinces only meet this criterion with one out of five of their classes (Spaull, 2016). Class size is not the only problem; inadequately trained teachers (Savides, 2017) with poor resources, a lack of support and even little knowledge of the language that they should teach in, are also aggravating learner failure (Ssetandi, Southwood, & Huddleston, 2019). As stated above, many learners in South Africa do not attend school in their L1 and use a L2 for academic purposes. English might thus in some parts of South Africa only be heard at school and not at home or in the community. The teacher is in these cases the only role model, and no home or community input, correction and/or reinforcement are possible. In these cases, having a teacher who has a low level of English proficiency negatively affects the learner's academic progress.

There is also a controversy around code switching in the classroom. Is the teacher who knows the learner's L1 helping the learner to improve his English when they explain the word via concepts or synonyms from their home language, or is it better for the child to hear only English and jump into the deep end until they learn to swim? This debate continues (Moodley, 2003; Nel, & Muller, 2010). Note, however, that code switching supposes proficiency in the languages in which the code switching takes place, and thus low proficiency levels on the part

of the teacher will not necessarily attain the desired pedagogical goals associated with deliberate code switching in the classroom (Ssetandi, Southwood, & Huddleston, 2019).

2.6 Parent involvement in language and academic development

If all the places where children learn, namely at home, in the community and at school, are considered (Meier, & Lemmer, 2015), it is clear that the parents and the community form two legs of a very important triangle. If these legs, however, collapse or do not render support, it will endanger the learner's chances of academic success.

Traditionally, the role of the parent is often described as that of nurturer and provider. There are, however, many different styles of parenting, and the responsive parent is described as the parent who plays an important role in providing a strong foundation for children to develop optimally (Landry, 2014). These parents provide positive affection and high levels of warmth and respond to the child's needs and signals. They also stimulate their children cognitively by providing rich verbal input and maintaining and expanding on the child's interests. Young children's acquisition of problem solving, language and social-emotional skills is facilitated by regular and in-depth interactions with their parents. The parents' concept of normal linguistic development is usually much broader relative to that of the children's teacher and the educational program, so that they less often experience the problems that the school notices (Bedore, Pena, Joyner, & Macken, 2011). Once the child starts school, the parent's role needs to expand to include supervision of academic work and ensuring academic progress. If progress is less than enough, corrective measures should be initiated (Ogundele, Olanipekun, & Aina, 2014). Parents are one of the pillars that children need and use when they need help with aspects of the classroom situation (Newman, 2000). Parents must, however, have a role in communicating so that they can encourage, mentor, lead and inspire (Clinton & Hattie, 2013). Parental involvement is a significant element in education and can be achieved at home through, for example, listening to children reading and assisting with homework (Hornby & Lafaele, 2011). The benefits of parent-teacher partnerships make a positive impact on the child's education. This partnership, however, often fails to develop. This situation is made worse when parents are unable to read and write and can only communicate in their mother tongue and not in their child's language of learning and teaching. This makes it almost impossible for them to assist children with homework (Meier & Lemmer, 2015).

It remains very important to work on a home-school partnership as parental involvement in learning can make learning pleasant for children and encourages them to work even harder as they attempt to make their closest family members proud (Alexander, Schallert, & Reynolds, 2009). Parents should not only be called upon to make themselves available to serve on governance boards and assist with fundraising events. They should be involved in a relationship of trust with the school and the teacher so that the learner's well-being is a shared venture (Meier & Lemmer, 2015). Periodic meetings between teachers and parents to make all parents take interest in their children's education are essential so that teachers can review the children's performance. Although academic performance reviews in the form of report cards are given to parents in many schools, little is known about their influence on parents' involvement in children's education. Many of the report cards are not personally delivered to the parents. A face-to-face meeting between parents and teachers is likely to induce more intervention from parents because it also allows teachers to report to parents about children's effort in class in more detail (Mlachila & Moeletsi, 2019). Communication via the school (specifically the teacher) to the parent and also communication from the parent to the school is seen in a very positive light as it opens channels of trust and encourages learners towards optimal academic success and socio-emotional well-being (Meier & Lemmer, 2015).

2.7 Chapter conclusion

In this chapter, I discussed English Language Learners and the challenges that they – and their L1 English classmates – face in an English-medium South African education system. A lack of language proficiency places learners at risk for educational failure. Early identification of language problems can lead to early intervention, which can limit the negative impact of the language problems on the learner's academic career. Such early identification relies on the teacher and parent to recognise language problems in a learner, both L1 and L2 learners. In this study, I attempted to ascertain whether the perceptions of parents and of teachers about Grade R learners' language skills correlate with objective language measures obtained from administering standardised assessment instruments. In the next chapter, I discuss the methodology I employed to do so.

3 Chapter Three: Research Design and Methodology

This chapter provides a detailed description of the research methodology followed in order to collect and analyse the data needed to answer the research questions. The aim was to provide a sufficient level of detail so that other researchers who wish to elaborate on or duplicate this study will be able to do so.

3.1 Introduction

Leedy and Ormrod (2005) explain the process of research as a circle that starts with a problem, and the circle can only be completed once that specific problem is solved. Although the research problem might be clear, goals and a plan for proceeding are needed to divide the end goal into more manageable sub-goals.

The existing problem prompting this research was explained in Chapters 1 and 2 of this study. In summary, English Language Learners enter Grade R with little or no English language proficiency, and they need to attain literacy in English while gaining proficiency in English. Those children who need intervention need to be identified early, so that the negative effect of any language problems on their academic progress can be contained. Several studies have been reviewed in which standardised tests were used to determine the language levels of learners. In this study, I compare the results of standardised language assessments with parent and teacher rating of a child's language abilities, in order to ascertain whether those Grade R English Language Learners who need intervention are indeed identified by their parents and/or teachers.

3.2 Research questions and aims

The research questions are repeated here for ease of reference:

- RQ1: Are the language problems of Grade R learners noticed by the parents and school teachers soon after the learner's entry into Grade R?
- RQ2: Are teacher and parent reports about Grade R learners' language confirmed by objective measurements of child language and of school readiness in terms of language abilities?

The following aims will be pursued to answer the specific research questions. The main aim of this study was to assess the language abilities of Grade R learners in an English-medium South African classroom. The parents as well as the teacher of each individual learner were also asked to give their perception of the child's language abilities. Questions were asked to these adults so that the results of their answers (in the form of ratings on a 4-point scale) could be compared to the standardised language tests' results.

The sub-aims were to determine the difference, if any, between:

- (i) the learners' performances on the different standardised tests and the relationship between these results. This was done to see whether the results of the tests provided a coherent picture of the child's language or whether there were any tests that rendered results that did not pattern like those of the other tests.
- (ii) the English L1 and English L2 speakers' performance on the different tests. This was done to establish whether or not these two groups performed the same. From the literature review, it was expected that the English L2 learners would obtain lower scores on the tests, and if this was not the result obtained, the validity of the tests would have to be questioned.
- (iii) the two different schools in terms of scores obtained on the standardised measures. The one school had more English L2 learners than the other, and this school was therefore expected to collectively obtain lower scores on the standardised assessment instruments than the other school, based on the results of previous studies, as reviewed in Chapter 2.
- (iv) the parent judgement of English L1 speakers and that of English L2 speakers. We assumed that the parents of the English L2 learners would have lower English proficiency, and we wanted to see whether (as expected) they rated their children's English proficiency lower than the parents of the English L1 learners rated their children's proficiency.
- (v) schools in terms of teachers' rating of the learners' language skills. We expected the overall teacher ratings of the one school to be higher than the teacher rating of the other school, because the one school had fewer English L2 learners than the other.

3.3 Type of study

For research to be scientific in nature, data needs to be collected in such a manner that the data will enable the researcher to answer the research questions (Punch, 2014). The set of procedures

followed must thus guide the researcher during the research process to lead to a verification of a hypothesis and to exclude other possible explanations not related to the specific research (Bless, Higson-Smith, & Sithole, 2004). The design should thus be carefully selected to suit the topic and the questions that need to be answered.

In the light of the above-mentioned aims, a quantitative study was conducted to determine the correlation between the child's scores on standardised English-medium language and vocabulary tests, on the one hand, and the parent's and teacher's perceptions of the child's English language proficiency and vocabulary size in English, on the other hand. The raw data was analysed quantitatively as comparisons were made. The data was presented numerically in order to allow conclusions to be made. The study had a cross-sectional design; language testing of the learners took place only once, at the end of the second term of their Grade R year.

3.4 Ethical considerations

Struwig (2001) mentions that research ethics provide the researcher with guidelines so that research is conducted in a morally acceptable manner. Ethics can be divided into four categories (Leedy, & Ormrod, 2005), namely protection against harm, informed consent, confidentiality and anonymity, and honesty with colleagues. In order to adhere to these requirements for research, ethical clearance was obtained from the Gauteng Educational Department (see Appendix A) and the Research Ethics Committee for the Humanities at Stellenbosch University (see Appendix B).

Informed consent was obtained from the parents via a letter (see Appendix C) sent to them through the school, more specifically through their child's Grade R teacher. In this letter, the test procedure was explained. This letter stated clearly that participation was voluntary and that any learner could withdraw at any stage without any negative consequences. Further measures were put into place to assure anonymity, such as that a random number was assigned to each participant. All personal information was kept strictly confidential.

Informed assent was obtained from each learner as they entered the test venue. Again, it was clearly stated that he/she could withdraw at any stage without the risk of negative consequences (see Appendix D).

Informed consent was lastly also obtained from the three participating teachers to evaluate each learner according to different criteria. Again, it was clearly stated that they could withdraw at any stage and that participation was voluntary (see Appendix E).

3.5 Instruments

The research instruments that were used to assess the Grade R learners were standardised tests that are routinely performed during language assessment by speech-language therapists, and all learners were assessed individually and according to the specifications in the test manuals. Note that despite their frequent use by speech-language therapists in South Africa, none of these tests were originally developed for South African learners, and none have been re-normed on the South African English-speaking population. This is a major drawback of these instruments; they were, however, used despite this drawback as there are no normed South African language assessment instruments available for young English-speaking children. Researchers such as White (2018) have overcome the problem of a lack of South African norms by working with raw scores only. This was not a viable solution for the present study, because I wanted to compare the language test results as a speech-language therapist would calculate and interpret them to the perceptions that parents and teachers have of the children's language skills.

Two vocabulary tests were performed, one of receptive vocabulary, namely the fourth edition of the Peabody Picture Vocabulary Test (PPVT-4; Dunn & Dunn, 2011), and the other of expressive vocabulary, namely the Renfrew Word Finding Scale (RWFS; Renfrew, 2016). The Renfrew Word Finding Scale assesses the learner's ability to name 50 objects and is suitable for learners between three and nine years and thus suitable for my study population. Language skills (apart from lexical knowledge) were also assessed: the Renfrew Action Picture Test checked the learners' informational and grammatical structures and is deemed suitable for children between three and eight years old (Renfrew, 2016), thus again appropriate for Grade R learners, given their age. The strong relationship between vocabulary and reading comprehension has been recognised for a long time (Klop & Tuomi, 2007). However, abilities such as verbal reasoning, understanding of syntax and word meanings are also essential for extracting meaning from written texts. Two further language measures – the Renfrew Action Picture Test and the Renfrew Bus Story, which is a test of narrative speech (Renfrew, 2010) – were administered. These measures have been found to be very valuable for identifying and

measuring language impairments, especially impairments or delays in narrative abilities, during the pre-school years (Pankratz, Plante, Vance, & Insalaco, 2007). The Bus Story Test was found to render the best results when administered after a child has been exposed to one year of education, although low scores still occur in contexts in which there has been insufficient exposure to English. The Bus Story Test was administered together with a language screening test, the second edition of the Kindergarten Language Screening Test (KLST-2; Gauthier & Madison, 1978). The KLST-2 test, like all the other language tests mentioned above, was individually administered to assess expressive and receptive language abilities by checking on the child's ability to understand questions, follow commands, repeat sentences, compare objects verbally and use spontaneous speech (Fraser Gupta, Brebner, & Yeo, 2013).

Apart from the standardised test instruments, two questionnaires were employed to collect data for the study. The parents of the participating children were asked personally to complete a questionnaire to determine their perception of the child's English language abilities in different sub-areas. The Grade R teachers of the participating children were also asked to complete a questionnaire on each learner to determine the teachers' perception of the child's usage of English as an academic language, again in different sub-areas. Table 3.1 provides a summary of the data collection instruments used in the study with the child participants, their parents and their teachers.

Table 3.1 Material and apparatus used for data collection

Instrument and Apparatus used	Measurements made and results rendered
PPVT-4	Receptive vocabulary test to determine comprehension of English vocabulary items.
Renfrew Word Finding Test	Expressive vocabulary test to determine proficiency in naming vocabulary items in English.
Renfrew Language Scales Action Picture Test 4 th Edition [Information measure and Grammar measure]	Samples of spoken language gathered by means of 10 action pictures and questions. Evaluations done in terms of information provided and grammatical structures used.

Table 3.2 Material and apparatus used for data collection (continued)

Renfrew Bus Story Test 4 th Edition [Information measure and Sentence length measure]	Samples of narrative speech taken as the child retells a story according to pictures provided.
KLST-2	Kindergarten Language Screening Test 2 performed to measure standard of school readiness.
Parental Rating	Parents asked to rate their child's proficiencies on the measured aspects, as they experienced the child at home.
Teacher Rating	Teachers asked to rate the child's proficiencies on the measured aspects, as observed by the teachers in the classroom.

These instruments were administered in randomised order to each participant individually in an office at the participant's school. I administered each instrument to each participant individually; no fieldworkers or research assistants were involved.

3.6 Participants

There were three participant groups, namely (i) 87 Grade R learners, to be discussed below, (ii) their parents, and (iii) their classroom teachers. One of the parents of each of the participating learners was asked to complete a questionnaire on their child. Of the 87 parents to whom the request was made, 84 obliged, with three parent questionnaires not received back in time for data analysis. Three classes, and thus three classroom teachers, were involved; each teacher completed a questionnaire on each of her participating learners, collectively assessing 87 learners individually.

All learners (male and female) from three English-medium Grade R classes in two public, National Quintile 5 schools in Gauteng were invited to take part in the study. These two schools were selected via purposive sampling; they are schools with whom I have an established relationship in my capacity as speech-language therapist. The first school has two Grade R classes, both of which are English-medium. (The Afrikaans-medium classes have all fallen away and, at present, the school is only English-medium.) This school has a larger number of non-South African learners than the second school, but the exact number was not disclosed to me. This school has 820 learners (from Grade R to 7) and 32 teachers in total.

The second school has three Grade R classes, of which one is English-medium and the other two are Afrikaans-medium. The school has 713 learners (from Grade R to 7) and 37 teachers.

Most of its learners are South African, with small numbers of learners from other African countries. This school is a parallel-medium school, with English and Afrikaans being taught in separate classrooms. Both schools are in the same city in Gauteng, approximately 129 km from Pretoria, the capital city of the province.

L1 and L2 learners of English are in the same classes in these schools, and both groups were eligible for participation. With the permission of the Gauteng Education Department and the principals of the two study schools, letters of invitation were sent in hard copy format to parents of 95 learners via the schools. The letters of invitation consisted of information on the study and an informed consent form. Those children (90 of the 95) whose parents consented to them being invited to take part in the study were invited to take part in the study. Of the 90 invited learners, all assented to participation. Of the 90, 87 were included in the study (all 87 with a completed teacher questionnaire, and 84 with a completed parental questionnaire). The remaining three learners were repeatedly absent, and their language assessments could not be completed. The number of invitation and information letters handed out and received back, and further information, are provided in Table 3.3.

Table 3.3 Summary of number of participants

Class	Class size	No of letters handed out	No of parents consenting	No of children assenting	No of children assessed with standardised tests	No of parental questionnaires completed	No of teacher questionnaires completed	Total number of children included in the study
School 1 Class 1	31	31	31	31	31	31	31	31
School 1 Class 2	32	32	32	32	32	32	32	32
School 2 Class 3	32	32	27	27	24	21	24	24
Total	95	95	90	90	87	84	87	87

The selection criteria applicable to the child participants were the following:

- (i) The child participants had to be in an English-medium Grade R class at either of the two study schools.
- (ii) The teachers had to declare themselves willing to answer questions in writing on their perceptions of each of their learners' language proficiency in school. If the teachers had not been willing to do so, I would have had to seek other study schools.

- (iii) The parents had to consent to their child being invited to take part in the study and had to be willing to answer questions in writing on their perceptions of their child's language proficiency at home.
- (iv) The child participants had to assent willingly to participation.
- (v) The child participants had to be present at school on the days on which the language assessments took place at their school.

Sex, age, English language status (whether English L1 or English L2/English Language Learner), ethnicity, socio-economic status and cultural background were not selection criteria. 49 boys and 38 girls participated in the study. Their ages ranged from 5 years 4 months to 6 years 6 months. The mean age was 70,5 months, the median was 71 months, and the standard deviation was 3,6, with a minimum age of 64 months and a maximum age of 71 months. Figure 3.1 shows the distribution of the participants' ages.

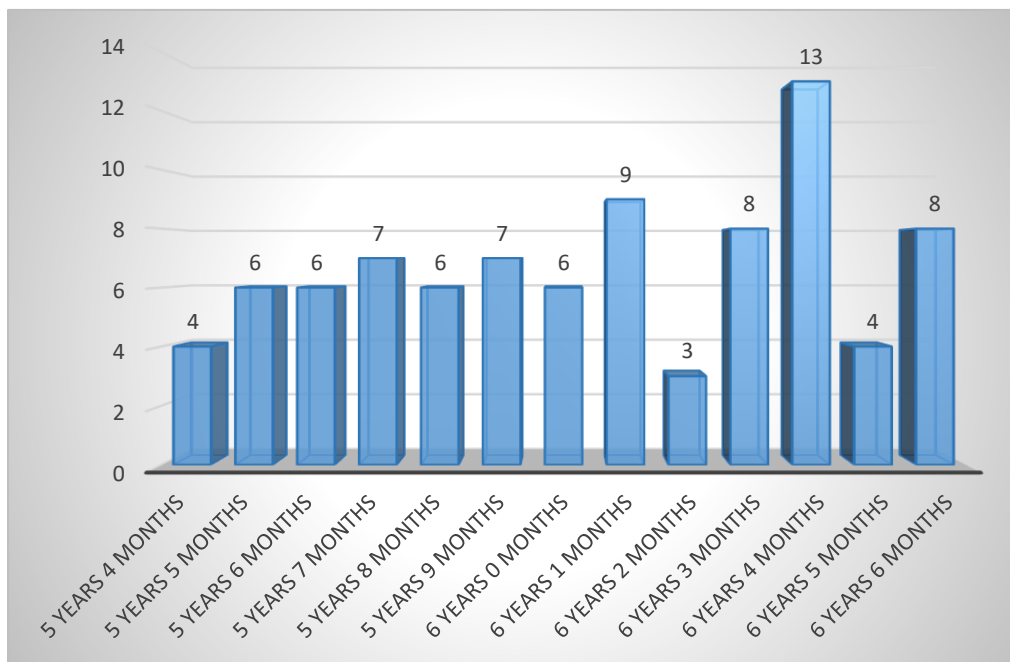


Figure 3.1 Distribution of the ages of the participants

Parents were not asked to provide any personal information about themselves, and it is thus not possible to describe the parent participants. The three teachers were all female. The teacher of Class 1 (in the first school) was 34 years old and had seven years of teaching experience, all seven years with Grade R learners. She had been teaching at this particular school for three years. Class 2's teacher (also at the first school) was 24 years old and had four years of teaching experience, all with Foundation Phase learners, of which one to two years were with Grade R

learners. She had been employed at this school for three years. The teacher of Class 3 (in the second school) was 52 years old and had 10 years of teaching experience, of which eight years were with Grade R learners. She had joined the staff of this school 10 years earlier.

3.7 Data analysis

Learners' language test results were obtained through individual completion of the standardised test battery. The parents were thereafter asked to complete a questionnaire in which they indicated their perception of their child's vocabulary size, usage of vocabulary, spoken language proficiency (pertaining to English) and overall school readiness. The correlation between the scores on the standardised language measures and the parental ratings was then calculated.

As in the case of the parents, the teacher was also asked to rate each learner's understanding of vocabulary, usage of vocabulary, spoken language proficiency (again, pertaining to English) and overall school readiness. The correlation between the scores on the standardised language measures and the teacher's ratings was then determined.

The results of each learner on each standardised assessment measure were then correlated within each other standardised assessment measure's results. Furthermore, the scores on each measure were then correlated with the participant's parent's and teacher's perception of the relevant sub-skill. Inter-correlations were obtained. The two language groups (English L1 and English L2) were compared with each other in terms of the results on the standardised assessment measures and, lastly, schools were also compared with one another in terms of their learners' scores on the standardised assessment measures.

Table 3.4 indicates how many data points there were for each measure, score or rating. As can be seen from this table, each standardised assessment measure was performed with each of the 87 child participants, and each teacher completed the questionnaire in full for each of these participants. By contrast, those parents who completed the questionnaire did not always answer each question on the questionnaire, resulting in some missing data points. Numbers are presented for English L1 and English L2 learners separately.

Table 3.4 Number of data points per measure

Group Statistics					
Language		N	Mean	Std. Deviation	Std. Error Mean
Receptive Vocab PPVT Stanine	English first language	20	2,75	1,552	0,347
	English second language	67	1,84	0,979	0,120
Renfrew Wordfinding	English first language	20	50,60	10,364	2,317
	English second language	67	42,13	6,950	0,849
Renfrew Language Information	English first language	20	61,35	17,792	3,978
	English second language	67	46,33	11,679	1,427
Renfrew Language grammar	English first language	20	61,00	15,176	3,393
	English second language	67	45,49	11,252	1,375
Renfrew bus story information	English first language	20	69,00	15,891	3,553
	English second language	67	56,28	11,942	1,459
Renfrew bus story sentence length	English first language	20	67,95	22,158	4,955
	English second language	67	57,93	16,705	2,041
KLST (school readiness) stanine	English first language	20	3,05	1,468	0,328
	English second language	67	2,01	1,094	0,134
Teacher Recept vocab	English first language	20	3,30	0,571	0,128
	English second language	67	2,82	0,833	0,102
Teacher Expressive vocab	English first language	20	2,80	0,768	0,172
	English second language	67	2,37	0,775	0,095
Teacher Information	English first language	20	2,65	0,875	0,196
	English second language	67	2,31	0,763	0,093
Teacher Grammar	English first language	20	2,75	0,786	0,176
	English second language	67	2,21	0,789	0,096
Teacher Story	English first language	20	2,45	0,945	0,211
	English second language	67	2,13	0,851	0,104
Teacher School Readiness	English first language	20	2,95	0,826	0,185
	English second language	67	2,46	0,745	0,091
Parent Receptive Vocab	English first language	20	3,15	0,745	0,167
	English second language	63	3,10	0,640	0,081
Parent Expressive Vocab	English first language	20	3,30	0,571	0,128
	English second language	64	3,08	0,762	0,095
Parent Information	English first language	20	3,40	0,681	0,152
	English second language	63	3,08	0,703	0,089
Parent Grammar	English first language	20	2,95	0,686	0,153
	English second language	63	2,68	0,895	0,113
Parent Story	English first language	19	3,00	0,882	0,202
	English second language	61	2,97	0,605	0,077
Parent School Readiness	English first language	18	3,17	0,857	0,202
	English second language	62	3,23	0,756	0,096

4 Chapter Four: Data analysis and results

4.1 Introduction

I start this chapter by returning to the language assessment instruments administered, which were discussed in Chapter 3. Here, I provide specifics on how the instruments were administered and how responses were scored. Then, I indicate how the group of 87 learners fared on each of these instruments. Thereafter, the results were analysed with SPSS 25. I present the correlation results, indicating the correlation between each instrument and (i) each other instrument, (ii) teacher judgements, and (iii) parental judgements, amongst others. Repeated measures were used as the children were evaluated by myself, by their teachers and by their parents – thus, three times. In other instances, groups were compared with each other – for instance, two different schools or L1 versus L2 users. These were then reported below each other as a comparison. Before reporting the results in detail, I provide some descriptive statistics in Table 4.1 to give a summative overview of the results.

Table 4.1 Descriptive statistics: Summary of results

	N	Minimum	Maximum	Mean	Std. Deviation
Receptive Vocab PPVT Stanine	87	1	6	2.05	1.190
Renfrew Word Finding	87	35	68	44.08	8.581
Renfrew Language Information	87	35	96	49.78	14.664
Renfrew Language grammar	87	35	84	49.06	13.825
Renfrew bus story information	87	35	96	59.21	13.935
Renfrew bus story sentence length	87	0	96	60.23	18.457
KLST (school readiness) stanine	87	1	6	2.25	1.260
Teacher Receptive vocabulary	87	1	4	2.93	.804
Teacher Expressive vocabulary	87	1	4	2.47	.790
Teacher Information	87	1	4	2.39	.798
Teacher Grammar	87	1	4	2.33	.816
Teacher Story	87	1	4	2.21	.878
Teacher School Readiness	87	1	4	2.57	.787
Parent Receptive Vocabulary	83	1	4	3.11	.663
Parent Expressive Vocabulary	84	1	4	3.13	.724
Parent Information	83	1	4	3.16	.707
Parent Grammar	83	1	4	2.75	.853
Parent Story	80	1	4	2.98	.675
Parent School Readiness	80	1	4	3.21	.774

4.2 Scores on standardised language assessment instruments

As stated in Chapter 3, the instruments administered to each child participant were

- (i) the Peabody Picture Vocabulary Test (Fourth Edition) (PPVT);

- (ii) the Renfrew Word Finding Scale (RWFS);
- (iii) the Renfrew Language Action Picture Test (Fourth Edition), for which there were two measures, namely the Renfrew Action Picture Test – Information and the Renfrew Action Picture Test – Grammar;
- (iv) the Renfrew Bus Story, for which there were again two measures, namely the Renfrew Bus Story – Information and the Renfrew Bus Story – Sentence Length; and
- (v) the Kindergarten Language Screening Test 2 (KLST-2).

The group results obtained on each of these are provided below. In each case, the child's scores were compared with those of their age group and then portrayed as a stanine, which is a nine-point scale. Stanines can be used to convert any test score to a single-digit score, where stanines have a mean of 5 and a standard deviation of 2.

4.2.1 Peabody Picture Vocabulary Test

Vocabulary has long been perceived as related to cognitive abilities (Dunn, & Dunn, 2011). The Peabody Picture Vocabulary Test is an objective receptive vocabulary measurement for persons 2 years 6 months and older. The test taker is shown four pictures on one page and is then asked to point to the picture named by the test administrator. The items start off with very concrete and easy to identify objects or actions (such as *foot*, *bus*, *jumping*) and then move to more abstract and more difficult to identify concepts (such as *boulder*, *maritime*, *dejected*). The prescribed protocol for administering the test was followed, as per the test manual. The test is started at a level determined by the test taker's age (so not all test takers start at item 1), and an applicable baseline is obtained. This occurs when the test taker responds correctly to eight consecutive items. If this does not occur within the first eight items administered, the test administrator returns to the first item tested and pages back from there, testing "under the starting point" until a baseline has been established or the first item of the test has been reached. Testing continues until a ceiling is reached, viz. when the test taker makes six errors on eight consecutive items. The raw score is then calculated by subtracting the number of errors between the highest item in the baseline and lowest item in the ceiling from the item number of the lowest item in the ceiling. Raw scores are converted to age norms and a stanine value is given. This then indicates the strength of the learner's receptive vocabulary. The mean stanine was 2,05 (median 2, 00) with a standard deviation of 1,11. The lowest stanine was 1 and the highest 6. As shown in Figure 4.1, many of the participants obtained low stanine values, with 40% only

performing on a stanine of 1 and a further 32% on a stanine of 2. It is thus clear that 70% or more of this group performed far below age-related norms.

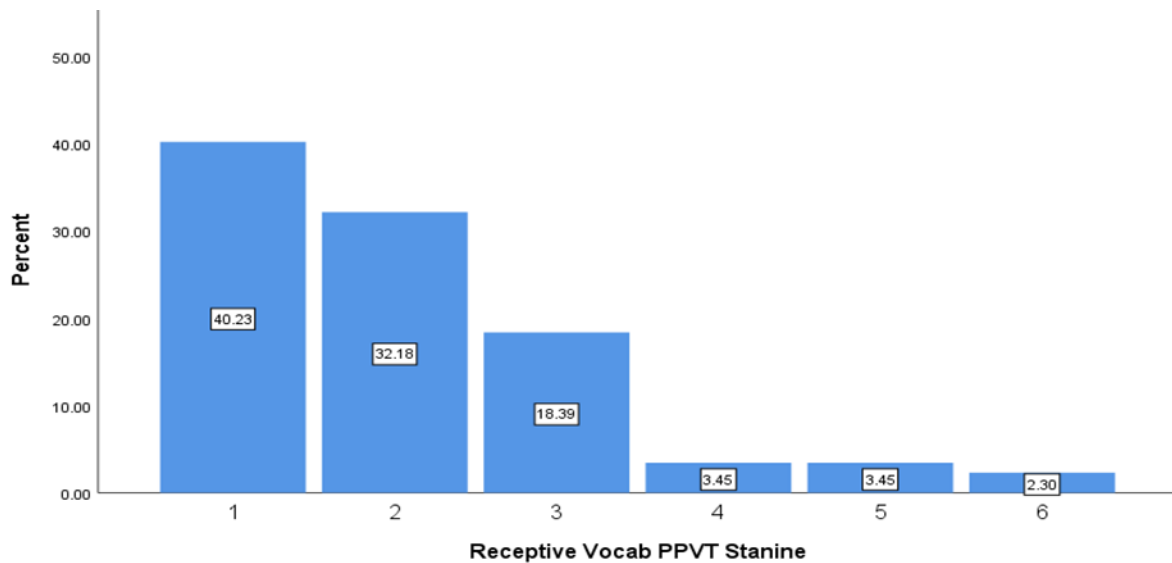


Figure 4.1 Receptive vocabulary (PPVT-4) stanines

4.2.2 Renfrew Word Finding Scale

During this test, each test taker is handed one card at a time out of a series of 50 line-drawn picture cards and asked to name the picture. The test starts with pictures of more concrete objects such as a key, duck, and cup but moves to less well-known objects like a magnet, binoculars, scarecrow, and parachute. All 50 cards are shown to each test taker (who needs to be three to eight years old). The score out of 50 is converted to a mental age score, which is compared to the test taker's chronological age to indicate his/her level of proficiency in the usage of vocabulary, and then reflected as a stanine when the comparison between the chronological and mental age scores is taken into account. Many participants scored below average on naming skills: Scores obtained were given in mental ages and ranged from a low, 35-month level (thus, an age equivalent of 2 years 11 months) up to a 68-month level (5 years 8 months). It is thus clear (see Figure 4.2) that most learners under-performed here when taking into consideration that their chronological ages varied from 64 to 78 months. The mean score was, however, 44 months, relating to a mental age of 3 years 6 months, compared to the participants' mean chronological age of 71 months (5 years 9 months); the standard deviation was 8,5 months. This thus leaves a discrepancy of 37 months – or a difference of 3 mental age years – between chronological age and mental age scores for expressive vocabulary.

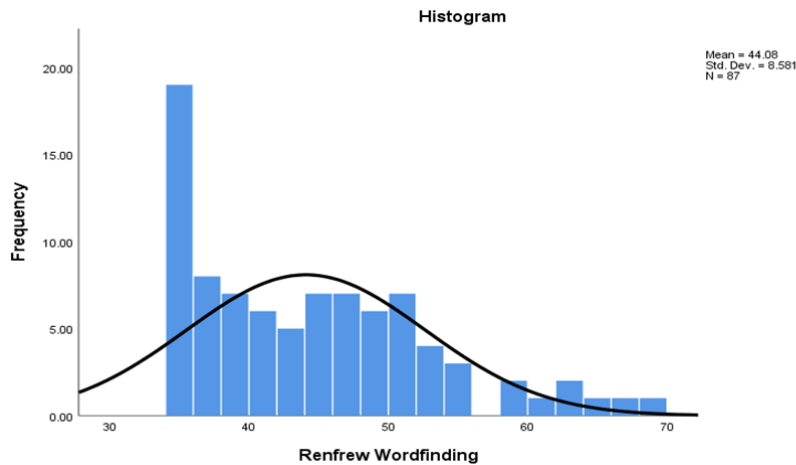


Figure 4.2 Expressive vocabulary (Renfrew Word Finding Scale): age equivalent scores (in months) on x-axis

Many participants struggled to name everyday items such as key, cup, moon, duck and knife. Examples of some of the functional descriptions, over-generalisations, hypernyms or associated words used instead of the target word are given in Table 4.2.

Table 4.2 Examples of non-target responses on the Renfrew Word Finding Scale

Target	Answer given
Duck	Bird; Chicken; Octopus; Penguin; Quack; Swan
Window	House; Glass
Moon	Cloud; Night; Square; Sun
Finger	Hand; Toe
Cup	Bottle; Coffee; Glass; Hot tea; Kettle; Tea
Kangaroo	Bunny; Dog; Fox; Mouse; Rabbit; Snail; Springbok
Crocodile	Fish; Dinosaur

4.2.3 Renfrew Action Picture Test – Information

During this test, 10 different cards are handed to the test taker (aged 3 years 6 months to 8 years 5 months), one by one. The test taker is lead with a question or request about each card, e.g., *What has the big girl done?* or *Look at the picture. Tell me what's happening.* The purpose of the test is to assess the child's spoken language. The ability of the child to describe a picture by paying attention to detail is analysed. The amount of information conveyed can then be assessed. Many participants described the pictures very superficially, without taking all aspects of the

picture into consideration, often resulting in an incomplete picture of the visual “story” told by the picture. The results here are totalled according to the standardised norms provided. The scores are then converted to mental ages. Mental age equivalents of 35 months (2 years 11 months) and 96 months (8 years 0 months) were recorded based on the information supplied in their answers. The mean mental age for amount of information supplied was at 49 months – thus at the level of 4 years 1 month – and the mean was 42 months (see the histogram in Figure 4.3). If the mean mental age is compared to the mean chronological age of 70 months, it indicates a delay of 21 months – thus almost two years between the participants’ mental age according to information provided and their chronological age.

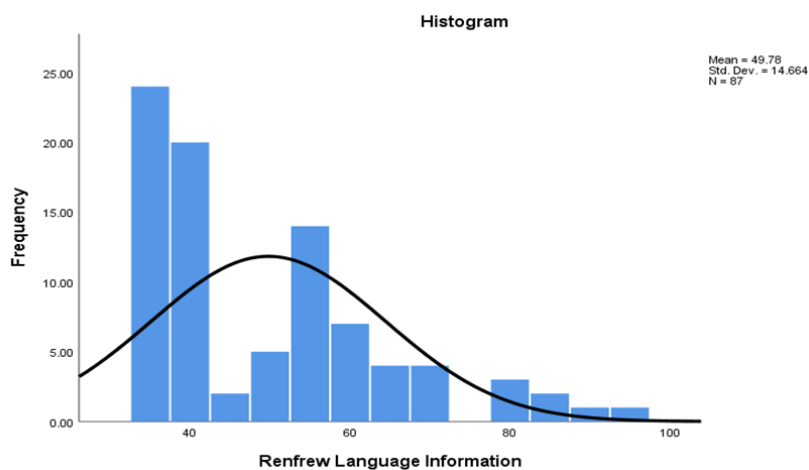


Figure 4.3 Renfrew Action Picture Test – Information (mental ages in months on the x-axis)

4.2.4 Renfrew Action Picture Test – Grammar

The presence of the following grammatical structures in the test taker’s answers (provided to the questions discussed in the previous section) was assessed:

- (i) informational words such as nouns, verbs and prepositions;
- (ii) present, past and future tense;
- (iii) irregular forms of plural and past tense;
- (iv) simple and complex sentence constructions; and
- (v) passive constructions.

The raw scores were converted to a mental age, based on the age at which the relevant grammatical structures are expected to appear in the language of an English-speaking child.

The protocol for administering the test was followed, as described above: Participants were assessed individually; cards were held up and questions were asked. No unnecessary prompting occurred. Learners were recorded and scoring was done afterwards. Scores were converted to mental ages according to the standardised norms provided in the manual. The learners could score between 36 months (3 years 0 months) and 102 months (8 years 6 months), but, as shown in Figure 4.4, they scored between 35 months (2 years 11 months) and 84 months (7 years 0 months). Their scores related to a mean mental age of only 49 months (4 years 1 month) (median 47 months, standard deviation 13,825), compared to the group's mean chronological age of 70 months (5 years 8 months). The discrepancy of 28 months (2 years 3 months) shows a serious shortfall in their grammatical abilities. When these results were taken into consideration, it was clear that learners struggled to tell the story both with adequate detail (information) and with adherence to grammatical rules (grammar); scores for both aspects were mostly below average when compared to the norms for when certain aspects were expected to be present in a child's language.

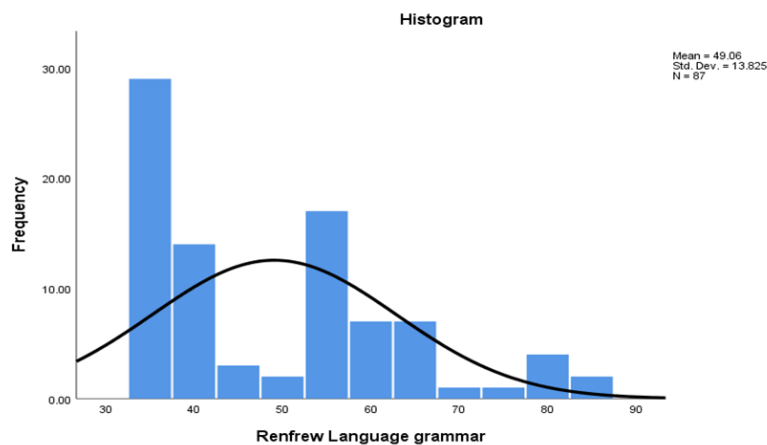


Figure 4.4 Renfrew Action Picture Test – Grammar (mental ages in months on the x-axis)

A selection of participant responses is provided in Table 4.3. This is not a full representation of all participant responses; the selection aims to indicate the range of non-target responses (containing, amongst others, the use of the general, all-purpose noun *thing*; incorrect semantic gender on a pronoun; inappropriate ellipsis; and tense errors) provided by the participants.

Table 4.3 Grammar items in Renfrew Action Picture Test, with selected participant responses

Item	Stimulus	Picture	Answers recorded
1	What is the girl doing?	(Picture of a girl holding/hugging a teddy)	Hugging
			It's playing
			Pick up this thing
2	What is the mother going to do?	(Picture of a mom going to take off her child's boot)	He pulling her shoe
			Putting boots on
			Wearing hers boots
			He did this....(pointing to own shoe)
			Getting hers shoe in his arm
			Is putting the girl
3	What has been done to the dog?	(Picture of a dog tied to a pole with a rope)	They did catch the dog
			They make him tied
			Tied him
			Closing, then it won't go
			They are pulling it here
			The neck, the dog...
			They skipping it to not go
			They lock it
4	Tell me all about what the man is doing?	Picture of a man riding on a horse and jumping over a gate	The horse is flying
			Is going with a horse
			He's driving
			Is sitting to the horse
			Climbing a horse
5	What has the cat just done?	Picture of a cat that caught two mice	Is gotten the mouse
			He's taking the thing
			But the cat is eating friends
			He taken the rabbits
			They want to eat
6	What has happened to the girl?	Picture of a girl that fell off the stairs and broke her glasses	He fell
			He fall
			He die
			He falled and her glass broken
			He broke he glasses
7	What has the big girl done?	Picture of a big sister who picked up her baby brother to enable him to post a letter in a post box	Pick up the child
			He's letting the boy takes the letter
			Her mommy's picking her up
			He's putting it in the bucket
			She's making the little kid post
8	Tell me what the man is doing?	Picture of a man climbing on a roof with a ladder to get a cat	Climbing to a ladder
			He getting a cat
9	What is the boy doing?	Picture of a boy crying because the dog took his shoe	The boy and then he take it
			He's crying of his shoe
			The dog take her shoe
			The boy she's crying for her shoe
			He's bite my shoe
10	What is happening here?	Picture of a mom whose bag tore and her apples fell out and a boy picked them up.	He did packet
			They take tomato sauce on the floor
			The apples did fall
			The boy is catching a apple

4.2.5 Renfrew Bus Story Test

This is a test that evaluates the narration of a story. The test taker's abilities to formulate information in such a manner that the listener can understand the who, what, where, when and why of the story is assessed. A story of a naughty bus is first conveyed to the learner with the assistance of 12 pictures. Thereafter, the pictures are presented to the test taker and he/she is asked to retell the story by making use of the pictures as memory aides. The test taker is scored afterwards on information presented when telling the story. The scores for information presented are converted to a mental age, which is then compared to their chronological age. A specific amount of detail regarding the information is required from each chronological age group. The participants did not provide enough information in their story. The mean mental age for the Bus Story Test's information measure was 59 months (4 years 9 months) (standard deviation 13,935) compared to the mean chronological age of 70 months (6 years 2 months). There is thus an 11-month discrepancy between the chronological age of 70 months and the mental age of 59 months. It was interesting to note that when I first told the story to them, the test (i.e., the Bus Story Test) rendered better results than the Renfrew Action Picture Test did, where no assistance was rendered by me, and they had to formulate the stories about the pictures themselves: The mean mental age for the Bus Story Test was 59 months, compared to the mean mental age of 49 months yielded by the Action Picture Test. Figure 4.5 shows a histogram for the mental age scores of the Bus Story Test – Information. The scores ranged from 36 months (3 years 0 months) to 96 months (8 years 0 months), with a median of 54 months (4 years 6 months).

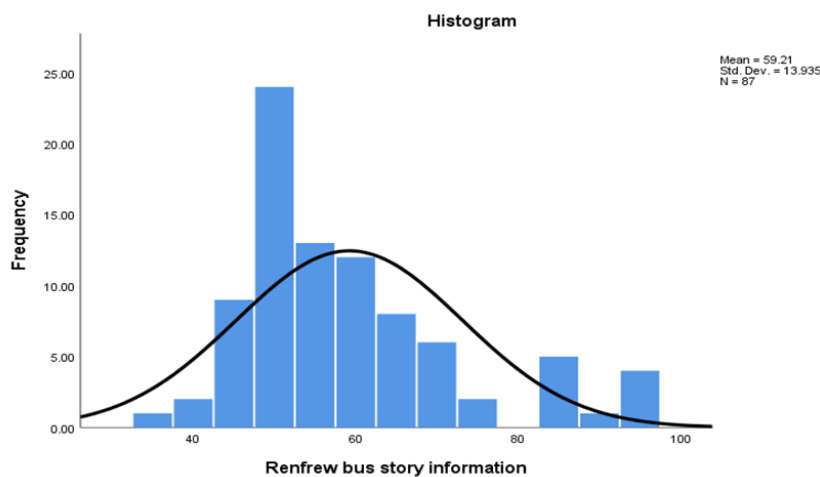


Figure 4.5 Renfrew Bus Story – Information (mental ages in months on the x-axis)

As stated above, the story of a naughty bus was told to the participant with the assistance of 12 pictures. Thereafter, the pictures were again presented to the participant and he/she was asked to retell the story, making use of the pictures as memory aides. Afterwards, the test taker was then scored on their mean length of utterance (i.e., sentence length). Apart from the amount of information provided (as described above), the length of the sentences was measured, and was compared to the norms of when certain sentence lengths would be expected. The mean sentence length for the Bus Story Test related to a mean mental age of 60 months (5 years 0 months; standard deviation 18,457), and 60 months was also the median, compared to the mean chronological age of the participants of 70 months. The recorded discrepancy is thus 10 months. Sentences were thus on average shorter than what the age group norm requires. The histogram is presented in Figure 4.6.

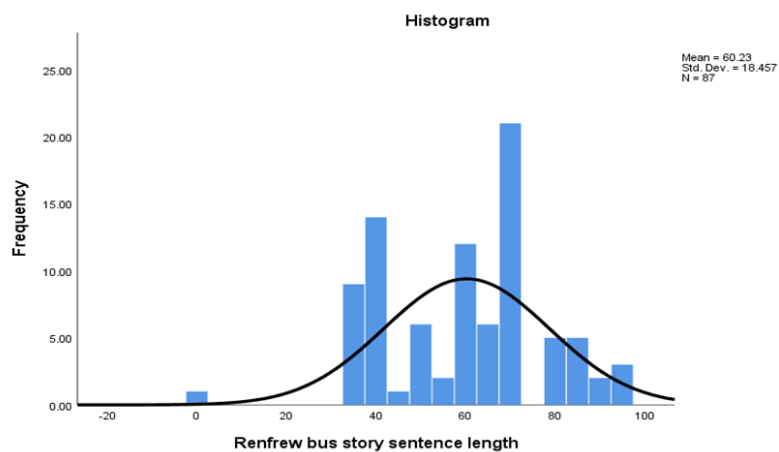


Figure 4.6 Renfrew Bus Story – Sentence length (mental ages in months on the x-axis)

4.2.6 Kindergarten Language Screening Test 2

The KLST-2 is conducted by means of pictures and objects with which general conversations are elicited. Certain aspects of language development are rendered important for school readiness, such as being able to use prepositions appropriately when describing the positions of objects, e.g., *the cat is on the table, the mouse is under the table, the rabbit is next to the table/on the floor*. Additionally, the test taker's ability to think and explain matters in English is tested when he/she is asked to point out similarities and differences between objects, for instance, *What is the same between juice and milk? or What is different between a car and a bike?* The test taker is also asked questions verbally, for example, to say what his/her full name and age are, to give the names of colours, to count animals on a page and to look at three cards that will make a story when placed in the correct order. The child's ability to order and describe

is thus assessed. His/her raw scores are compared to chronological age norms and given as a stanine of language school readiness. Eighty percent of the participants scored on a stanine of 3 or below, which could indicate that their language abilities do not render them ready for the onset of academic work. The mean stanine was 2,25 (median 2), with a standard deviation of 1,26. No participant achieved stanines of 7 to 9 (see Figure 4.7). The group was thus predominantly far below average, with effectively no learner scoring strongly above average. A selection of non-target responses is presented in Table 4.4.

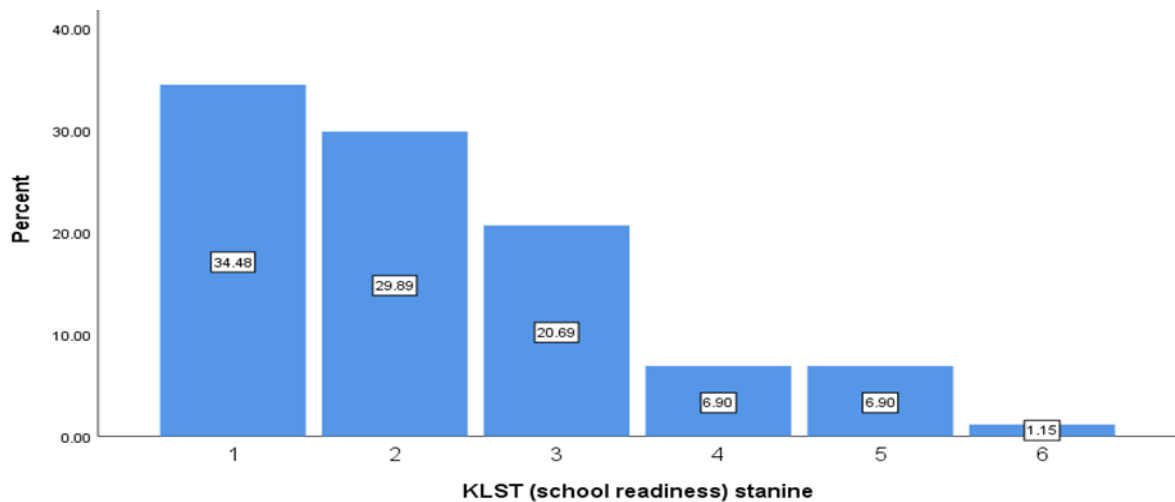


Figure 4.7 School readiness in terms of language (KLST-2) stanines

Table 4.4 KLST-2 stimuli, with selected participant responses

Stimulus (No Pictures)	Response
Tell me how an apple and a banana are different.	It's not blue
	The apple is for eating and the banana is for eating
	For running
	They are for eating
Tell me how a bird and a dog are different.	The dog can do that for the monkey and the bird can do that for the monkey
	The bird is brown and the dog is brown
	They are different
	The dog doesn't like the bird
	They are fighting
	They look the same
Tell me how milk and juice are the same.	Because the milk is what the juice is
	Not the eating is making the juice
	They are the same
Tell me how a car and a bike are the same.	The car is grey and the bike is yellow
	They are the same

4.2.7 Summary

Table 4.5 presents a summary of the results that the 87 participants obtained on the language assessment instruments:

Table 4.5 Summary: Language test results

	Mean stanine	Mean mental age (months)	Median	Standard deviation	Minimum	Maximum
PPVT-4	2,05	-	2,00	1.11	1 stanine	6 stanine
RWFS	-	44		8,5	35 months	68 months
RAPT-Information	-	49	42	14,7	35 months	96 months
RAPT-Grammar	-	49	47	13,8	35 months	84 months
Bus Story-Information	-	59	54	13,9	35 months	96 months
Bus Story-Sentence length	-	60	60	18,5	0 months	96 months
KLST-2	2,25	-	2,00	1,26	1 stanine	6 stanine

4.3 Differences between EL1 and EL2 participants on the standardised language assessment instruments

The performance of the EL1 participants (n = 20) and the EL2 participants (n = 67) on the language assessment measures were compared making use of an independent samples t-test. Levene's test for the equality of variance was used, and the appropriate t-test was selected. There was a significant difference in the scores for EL1 and EL2 on all tests, where significance was taken as $p < 0.05$ (see

Table 4.6), and EL1 learners outperformed EL2 learners. It is thus clear that in all the tests EL1 learners outperformed EL 2 learners.

Table 4.6 EL1 and EL2 results on standardised language assessment instruments

Instrument	EL1		EL2		t
	Mean score	Standard deviation	Mean score	Standard deviation	
PPVT	2,75 stanine	1,552	1,84 stanine	0,979	2,491
Renfrew Word Finding Scale	50,6 months	10,364	42,13 months	6,950	3,430
Renfrew Action Picture Test (Information)	61,35 months	17, 792	46,33 months	11,679	3,554
Renfrew Action Picture Test (Grammar)	61,0 months	15,176	45,49 months	11,252	-4,235
Renfrew Bus Story (Information)	69,0 months	15,2891	56,28 months	11,942	3,311
Renfrew Bus Story (Sentence Length)	67,95 months	22,158	57,93 months	16,705	1,871
KLST-2	3,05 stanine	1,468	2,01 stanine	1,094	2,920

4.4 Differences between the two schools on the language assessment instruments

In School 1, where two Grade R classes participated, there were 63 participants, and in School 2, where one class participated, there were 24. The difference between School 1's and School 2's performance on the language tests was investigated by means of an independent samples t-test. Levene's test for the equality of variance was used, after which the appropriate t-test was used. There were statistically significant differences between the results obtained by the School 1 participants and those obtained by the School 2 participants in terms of expressive vocabulary as measured by the Renfrew Word Finding Scale; the information results of the Renfrew Action Picture Test; and the grammar results of the Renfrew Action Picture Test. In all cases, School 2 (where there were more EL1 learners) performed better than School 1 (where there were more EL2 learners). There were, however, no statistically significant differences between the schools in terms of the results for receptive vocabulary as measured by the PPVT; information provided during storytelling as measured by the Renfrew Bus Story; sentence length during storytelling as measured by the Renfrew Bus Story; and school readiness as measured by the KLST-2. Table 4.7 indicates the relevant t-values. In all cases, significance was taken as $p < 0.05$.

Table 4.7 School 1 and School 2 results on standardised language assessment instruments

Instrument	School 1		School 2		t
	Mean score	Standard deviation	Mean score	Standard deviation	
PPVT	1,94 stanine	1,148	2,33 stanine	1,274	-1,398
Renfrew Word Finding Scale	42,8 months	7,418	47,6 months	10,455	-2,076
Renfrew Action Picture Test (Information)	46,3 months	11,524	58,8 months	18,11	-3,147
Renfrew Action Picture Test (Grammar)	46,1 months	11,868	56,9 months	15,713	-3,456
Renfrew Bus Story (Information)	58,4 months	13,217	61,3 months	15,769	-0,877
Renfrew Bus Story (Sentence Length)	59,8 months	17,149	61,3 months	21,896	-0,317
KLST-2	2,14 stanine	1,189	2,54 stanine	1,414	-1.326

4.5 Correlation between the scores obtained on the different standardised tests: All participants, and EL1 versus EL2

In order to ascertain whether the results that the participants obtained on the different standardised language measures correlated with each other, Spearman's rho was used to calculate correlation coefficients. Below, a correlation will be described as either trivial (.0), small (.1), moderate (.3), large (.5), or very large (.7) (Hopkins, 2002). I started by treating the 87 participants as one group; in the last sub-section, I indicate how correlations change (or not) when considering only the EL1 participant group and only the EL2 participant group.

4.5.1 The PPVT (Peabody Picture Vocabulary Test)

The results of the PPVT showed a very large correlation ($\rho = .709$, $p < 0.01$) with those of the Renfrew Word Finding Scale for the 87 participants. Recall that both are vocabulary tests, the former assessing receptive vocabulary and the latter assessing expressive vocabulary. The correlation implies that participants who had a sound comprehension of words also used vocabulary more appropriately, and that participants who struggled to understand words also struggled to use them.

The correlation between the results on the PPVT and those on the Renfrew Action Picture Test's Information measure was large ($\rho = .521$, $p < 0.000$). This indicates a strong correlation between receptive vocabulary and expressive language in terms of the amount of information

conveyed. In the case of the PPVT versus the Grammar measure of the Renfrew Action Picture Test, there was again a large correlation ($\rho = .594, p < 0.000$). This indicates a strong correlation between participants' receptive vocabulary and the information and grammatical content of their utterances.

When comparing the results of the PPVT to those of the Renfrew Bus Story, there is a large correlation for information ($\rho = .502, p < 0.000$) and for sentence length ($\rho = .514, p < 0.000$). There was also a large correlation between the PPVT results for receptive vocabulary and the KLST-2 results for school readiness ($\rho = .630, p < 0.000$). It is thus evident that there is a strong inter-correlation between the chosen objective language tests.

4.5.2 Renfrew Word Finding Scale

As stated above, the scores on the Renfrew Word Finding Scale correlated very strongly ($\rho = .709, p < 0.000$) with those on the PPVT. The results for expressive vocabulary as measured by the Renfrew Word Finding Scales correlated strongly with those for the amount of information conveyed in the Renfrew Action Picture Test's Information measure ($\rho = .571, p < 0.000$) and expressive language skills as measured by the Grammar measure of the Renfrew Action Picture Test ($\rho = .587, p < 0.000$). There was also a large correlation between the results for the Renfrew Word Finding Scale and those for the Renfrew Bus Story's Information measure ($\rho = .626, p < 0.000$) and the sentence length measure of the Renfrew Bus Story ($\rho = .553, p < 0.000$). The expressive vocabulary scores also correlated strongly with school readiness as measured by the KLST-2 ($\rho = .633, p < 0.000$). It is thus evident that there is a strong inter-correlation between the chosen objective language tests.

4.5.3 Renfrew Action Picture Test (Information measure)

The participants' ability to describe a picture while providing sufficient information correlated

- (i) very strongly with their grammatical knowledge and usage ($\rho = .750, p < 0.000$) as measured by the Renfrew Action Picture Test (Grammar);
- (ii) strongly with their ability to retell a story providing sufficient information ($\rho = .612, p < 0.000$) as measured by the Renfrew Bus Story (Information),
- (iii) moderately with their sentence length during story-retell ($\rho = .437, p < 0.000$) as measured by the Renfrew Bus Story (Sentence Length), and
- (iv) strongly with general school readiness in terms of language skills ($\rho = .629, p < 0.000$) as measured by the KLST-2.

As stated above, there was a large correlation between the Renfrew Action Picture Test's Information measure and the PPVT ($\rho = .521, p < 0.000$), on the one hand, and the Renfrew Word Finding Scale ($\rho = .571, p < 0.000$), on the other. Again, it is clear that there is a strong inter-correlation between the chosen objective language tests. This indicates that I did in fact measure what I needed to measure and that there was validity to the test battery.

4.5.4 Renfrew Action Picture Test (Grammar measure)

Participants' ability to describe a picture using sound grammar correlated strongly with their narrative as measured by the Renfrew Bus Story, both in terms of information provided ($\rho = .618, p < 0.000$) and sentence length ($\rho = .562, p < 0.000$). For school readiness as measured by the KLST-2, there was a large correlation with the scores of the Renfrew Action Picture test (Grammar) ($\rho = .659, p < 0.000$). As stated above, there was a large correlation between the Grammar measure of the Renfrew Action Picture Test and the PPVT measuring receptive vocabulary ($\rho = .594, p < 0.000$) and the Renfrew Word Finding Scale measuring expressive vocabulary ($\rho = .587, p < 0.000$); and a very large correlation with the Renfrew Action Picture Test (Information) ($\rho = .750, p < 0.000$). Again, it is clear that there is a strong inter-correlation between the chosen objective language tests, that I did in fact measure what I needed to measure, and that there was validity to the test battery.

4.5.5 Renfrew Bus Story (Information measure)

Here participants' ability to describe a story with enough information was compared to their sentence length while telling a story (Renfrew Bus Story – Sentence Length), and a very large correlation was found ($\rho = .709, p < 0.000$). Recall that there were large correlations between the Renfrew Bus Story (Information) and PPVT (for receptive vocabulary) ($\rho = .502, p < 0.000$), the Renfrew Word Finding Scale (for expressive vocabulary) ($\rho = .626, p < 0.000$), the Renfrew Action Picture Test (Information) ($\rho = .612, p < 0.000$), and the Renfrew Action Picture Test (Grammar) ($\rho = .618, p < 0.000$). There was also a large correlation between the Renfrew Bus Story (Information) and general school readiness as measured by the KLST-2 ($\rho = .625, p < 0.000$). Again, it is clear that there is a strong inter-correlation between the chosen objective language tests, that I did in fact measure what I needed to measure, and that there was validity to the test battery.

4.5.6 Renfrew Bus Story (Sentence length)

There was a large correlation between the scores for sentence length on the Renfrew Bus Story and general school readiness in terms of language skills as measured by the KLST-2 ($\rho = .530$, $p < 0.000$). Recall that the correlations between the Renfrew Bus Story (Sentence length) and the other standardised tests were either large – $\rho = .514$ for the PPVT ($p < 0.000$), $\rho = .553$ for the Renfrew Word Finding Scales ($p < 0.000$), and $\rho = .562$ for the Renfrew Action Picture Test (Grammar measure) ($p < 0.000$) – or moderate – $\rho = .437$ for the Renfrew Action Picture Test (Information measure) ($p < 0.000$). Again, there is a strong inter-correlation between the chosen objective language tests. I did in fact measure what I needed to and there was validity to the test battery.

4.5.7 KLST-2

As stated above, general school readiness in terms of language skills as measured by the KLST-2 correlated strongly with all other standardised language measures: PPVT $\rho = .630$ ($p < 0.000$), Renfrew Word Finding Scale $\rho = .633$ ($p < 0.000$), Renfrew Action Picture Test (Information) $\rho = .629$ ($p < 0.000$), Renfrew Action Picture Test (Grammar) $\rho = .659$ ($p < 0.000$), Renfrew Bus Story (Information) $\rho = .625$ ($p < 0.000$), and Renfrew Bus Story (Sentence length) $\rho = .530$ ($p < 0.000$). The school readiness test in language terms, again, confirmed the inter-validity between the different chosen objective language tests.

4.5.8 Correlation between the scores obtained on the different standardised tests: EL1 and EL2 separately

Table 4.8 contains the correlations between the scores obtained on the various standardised language assessment instruments, for the group of 87 participants as a whole. In all cases, the correlations were statistically significant ($p < 0.05$).

Table 4.8 Spearman's rho for correlation between scores on standardised language assessment instruments: All participants

Language assessment instrument	PPVT	Renfrew Word Finding Scale	Renfrew Action Picture Test (Information)	Renfrew Action Picture Test (Grammar)	Renfrew Bus Story (Information)	Renfrew Bus Story (Sentence Length)	KLST-2
PPVT							
All	1.00	.709	.521	.594	.502	.514	.630
EL1	1.00	.758	.716	.567	.546	.504	.792
EL2	1.00	.658	.428	.541	.425	.514	.511
Renfrew Word Finding Scale							
All	.709	1.00	.571	.587	.626	.553	.633
EL1	.758	1.00	.728	.636	.687	.617	.685
EL2	.658	1.00	.521	.549	.571	.567	.555
Renfrew APT (Information)							
All	.521	.571	1.00	.750	.612	.437	.629
EL1	.716	.728	1.00	.859	.750	.703	.788
EL2	.428	.521	1.00	.646	.512	.305	.535
Renfrew APT (Grammar)							
All	.594	.587	.750	1.00	.618	.562	.659
EL1	.567	.636	.859	1.00	.799	.765	.713
EL2	.541	.549	.646	1.00	.458	.467	.564
Bus Story (Information)							
All	.502	.626	.612	.618	1.00	.709	.624
EL1	.546	.687	.750	.799	1.00	.693	.714
EL2	.425	.571	.512	.458	1.00	.715	.544
Bus Story (Sentence Length)							
All	.514	.553	.437	.562	.709	1.00	.530
EL1	.504	.617	.703	.765	.693	1.00	.491
EL2	.514	.587	.305	.467	.715	1.00	.523
KLST-2							
All	.630	.633	.629	.659	.624	.530	1.00
EL1	.792	.685	.788	.713	.714	.491	1.00
EL2	.511	.555	.535	.564	.544	.523	1.00

4.6 Parental ratings of their child's language proficiency and school readiness

The parents of the participating learners were asked to use a 5-point scale on which to indicate how they would rate their child's language proficiency (see Appendix E) in terms of

- (i) comprehension of words, which was later compared with the PPVT scores for receptive vocabulary and to the teacher's rating;

- (ii) usage of words, which was later compared with the scores the participant obtained on the Renfrew Word Finding Scale and with the teacher's rating;
- (iii) the information the child provides when talking (also described as the completeness of what the child says when he/she is talking), which was later compared with the scores on the Information measure of the Renfrew Action Picture Test, as well as with the teacher's rating;
- (iv) the grammatical usage of language, which was later compared with the Renfrew Action Picture Test scores (Grammar measure), as well as with the teacher's rating;
- (v) their child's ability to tell a story, which was later compared to the scores obtained on the Renfrew Bus Story Test and also to the teacher's rating; and
- (vi) the child's general school readiness considering his/her language abilities, which was later compared to the KLST-2 score, as well as to the teacher's rating.

The five points on the scale for each of these aspects were as follows:

- 4 high above average
- 3 slightly above average
- 2 slightly below average
- 1 seriously below average
- 0 I don't know

Table 4.9 summarises the parents' ratings. Recall that 84 parents returned the questionnaire (three failed to do so). Not all parents rated all aspects of their child's language: the child participants' story-telling abilities and general school readiness in terms of language were rated by 80 parents; their comprehension of vocabulary, the completeness of the information they provide while talking, and their grammar by 83 parents, and their use of vocabulary by 84 parents. For ease of comparison, all figures in Table 4.9 are given as percentages. As can be seen from Table 4.9, the majority of the parents rated their children's English language skills as either slightly or well above average. For instance, 78% of parents thought that their children's understanding of vocabulary was above average, 79% felt that their usage was above average, 80% felt that they provided above average information when they talked, 61% felt that their grammar was above average, 75% felt that they retold stories at an above average level, and 75% felt that their school readiness was above average. In the next section, these ratings are compared to the objective scores for these language skills as obtained on the standardised tests.

Table 4.9 Parent rating of their children on different language skills

Measure	Percentage of parents awarding rating				
	4 = high above average	3 = slightly above average	2 = slightly below average	1 = seriously below average	0 = I don't know
Understanding vocabulary	25	56	13	1	5
Using vocabulary	31	48	16	1	4
Providing information	31	49	14	1	5
Using grammar	19	42,3	29,4	7	2,3
Retelling stories	17	58	15	2	8
School readiness in terms of language	38	37	16	1	8

4.7 Correlations between parental ratings and scores on standardised tests

The objective measure of the child participants' understanding of vocabulary (the PPVT score) was compared to the parents' rating of their children's understanding of vocabulary by making use of Spearman's rho to calculate correlation coefficients. There was a trivial, non-significant positive correlation of $\rho = .099$ ($p = 0.378$). There was a small correlation between scores obtained on the Renfrew Word Finding Scale for expressive vocabulary and parent rating of expressive vocabulary ($\rho = .122$), but this was not statistically significant ($p = 0.268$). There was also a small, but significant, correlation between the information the participants used during picture description (Renfrew Action Picture Test – Information) and the parental rating of the amount of information their children convey while talking ($\rho = .235$; $p = 0.032$). Objective measurement of the participants' usage of grammar (Renfrew Action Picture Test – Grammar) was compared to the parents' perception of their children's grammar when talking. This correlation was also small but significant ($\rho = .217$; $p = 0.049$). There was furthermore a small but significant correlation between the scores on the information measure of the Renfrew Bus Story and the parental ratings of their children's ability to retell a story ($\rho = .283$; $p = 0.011$). This same parent rating correlated to a small extent and non-significantly with the sentence length measure of the Renfrew Bus Story ($\rho = .205$; $p = 0.068$). In terms of school readiness, there was again a small and non-significant correlation between the results participants obtained on the KLST-2 and their parents' rating ($\rho = .149$; $p = 0.186$).

In summary, parental ratings showed

- (i) a trivial, non-significant correlation with the participants' scores on the PPVT (receptive vocabulary);
- (ii) a small, non-significant correlation with the scores on the Renfrew Word Finding Scale (expressive vocabulary), the Renfrew Bus Story (sentence length), and the KLST-2 (general school readiness when considering language skills); and
- (iii) a small but statistically significant correlation with the scores on the Renfrew Action Picture Test (Information), Renfrew Action Picture Test (Grammar), and the Renfrew Bus Story (Information).

4.8 Teacher rating of children's language proficiency and school readiness

As was the case for the parents, the three classroom teachers were asked to use the same 5-point scale (high above average, slightly above average, slightly below average, seriously below average, I don't know) to indicate how they rated each of the participating learners' language proficiency (see Appendix F), collectively rating 87 child participants. The teachers rated the same aspects as the parents did, and their ratings too were compared to the scores obtained on the standardised measures and to the parents' ratings. Table 4.10 summarises the teacher ratings. For ease of comparison with the parental ratings, all figures in Table 4.10 are given as percentages. As can be seen from this table, most language skills were mainly rated around (slightly above or slightly below) average by the teachers.

Table 4.10 Teacher rating of their learners on different language skills

Measure	Percentage of parents awarding rating				
	4 = high above average	3 = slightly above average	2 = slightly below average	1 = seriously below average	0 = I don't know
Understanding vocabulary	24	49	22	5	0
Using vocabulary	8	34,5	46	11,5	0
Providing information	8	34.5	46	11.5	0
Using grammar	8	31	47	14	0
Retelling stories	8	26	44	22	0
School readiness in terms of language	10	45	37	8	0

The two teachers at School 1 and the one teacher at School 2 rated their learners differently in terms of their ability to tell stories, as measured by t-tests ($t = -0.877$). The teacher at School 2 (where there were more EL1 learners) rated her learners' story-telling abilities higher than did the teachers at School 1 (where there were more EL2 learners): The mean rating for School 2 was 2,58 (SD 1,018) and for School 1 was 2,06 (SD 0,780). There were no statistically significant differences between School 1's and School 2's teacher ratings on the other language measures: for understanding vocabulary, $t = -1,398$; for usage of vocabulary, $t = -2,076$; for amount of information provided when talking, $t = -3,197$; for grammar, $t = -3,456$; and for school readiness based on language skills, $t = -1,326$. In all cases, $p < 0.05$ was taken as an indication of statistical significance.

4.9 Correlation between teacher ratings and scores on standardised tests

The PPVT score (which is the objective measure of the child participants' understanding of vocabulary) was compared to the teacher rating of their learners' understanding of vocabulary by making use of Spearman's rho to calculate correlation coefficients. There was a small, statistically significant correlation of $\rho = .286$ ($p = 0.007$). There was a moderate, significant correlation between scores for the Renfrew Word Finding Scale (measuring expressive vocabulary) and teacher rating of expressive vocabulary ($\rho = .342$; $p = 0.001$). The correlation between the Renfrew Action Picture Test (Information) (the information the participants provided during picture description) and the teacher rating of the amount of information the children convey while talking was moderate and significant ($\rho = .335$; $p = 0.002$). The scores participants obtained on the Renfrew Action Picture Test (Grammar) correlated moderately with the teachers' ratings of their learners' grammar ($\rho = .471$), and this correlation was significant ($p < 0.000$). Objective measurement of the amount of information provided by participants while retelling a story (Renfrew Bus Story Test – Information) was compared to the teacher's perception of the learners' abilities to retell a story verbally. The correlation was moderate ($\rho = .352$) and significant ($p = 0.001$). There was also a moderate and significant correlation between the scores on the sentence length measure of the Renfrew Bus Story and the teachers' ratings of their learners' ability to retell a story ($\rho = .358$; $p = 0.001$). For school readiness, there was a moderate, significant correlation between the results participants obtained on the KLST-2 and their teachers' ratings ($\rho = .482$; $p < 0.000$).

In summary, the teachers' ratings correlated significantly with the scores obtained on the standardised language tests. These rating showed

- (i) a small correlation with the participants' scores on the PPVT (receptive vocabulary); and
- (ii) a moderate correlation with the scores on the Renfrew Word Finding Scale (expressive vocabulary), Renfrew Action Picture Test (Information), Renfrew Action Picture Test (Grammar), the Renfrew Bus Story (Information), Renfrew Bus Story (Sentence length), and KLST-2 (general school readiness when considering language skills).

4.10 Three-way Comparison between Teachers, Parents and Standardised Test findings (ANOVA)

4.10.1 Background

A three-way analysis of variance was performed to determine whether there was a three-way interaction between the three independent variables, namely the objective measurements, the teacher ratings and the parental ratings.

A general linear model using repeated measures was performed to investigate the differences between the objective measurement of the various aspects, namely objective measurements, teacher ratings and parental ratings. A 5% level of significance was used. Partial eta squared (η^2) was used as a measure of practical effect size. Guidelines for interpreting this value is that .001 is small, .06 is medium, and .13 is large. Rater 1 in this output is the objective measure of the different standardised tests, Rater 2 the teacher group and Rater 3 the parent group.

4.10.2 Receptive vocabulary findings

Table 4.11 shows the statistics for receptive vocabulary, as measured by the PPVT-4 and rated by the parents and the teachers.

Table 4.11 Statistics Vocabulary - Receptive

Descriptive Statistics			
	Mean	Std. Deviation	N
Receptive Vocab PPVT Stanine	2,06	1,203	83
Teacher Recept vocab	2,94	0,817	83
Parent Receptive Vocab	3,11	0,663	83

2. Rater				
Estimates				
Measure:	Vocab			
Rater	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	2,060	0,132	1,798	2,323
2	2,940	0,090	2,761	3,118
3	3,108	0,073	2,964	3,253

Pairwise Comparisons						
Measure:	Vocab					
(I) Rater		Mean Difference (I-J)	Std. Error	Sig. ^b	95% Confidence Interval for Difference ^b	
					Lower Bound	Upper Bound
1	2	-.880 [*]	0,135	0,000	-1,149	-0,610
	3	-1,048 [*]	0,139	0,000	-1,325	-0,771
2	1	.880 [*]	0,135	0,000	0,610	1,149
	3	-0,169	0,100	0,094	-0,367	0,030
3	1	1,048 [*]	0,139	0,000	0,771	1,325
	2	0,169	0,100	0,094	-0,030	0,367

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

For comprehension of vocabulary, there was a significant difference between the three measurements / ratings: $F(2,164) = 39.897$, $p = 0.000$, $\eta^2 = 0.327$ (see Ellis & Steyn, 2003). This was followed by pairwise comparisons (see Table 4.12) to investigate the nature of the differences between measures. It was found that the difference between test and teacher rating was significant ($p = 0.000$), as well as the difference between test and parent rating ($p = 0.000$). The difference between the teacher and parent ratings was not significant ($p = 0.094$). Inspection of the mean scores showed that the actual test score for vocabulary comprehension was 2.06. This score is a stanine, thus indicating a value far below average. The teacher and parent ratings were 2.94 out of a possible 4, and 3.11 out of a possible 4, respectively. Both the parents and the teachers thus scored the group above average to strongly above average, whereas the formal test results actually indicated that the group scored predominantly far below chronological age norms. It is thus clear that both teachers and parents tended to rate the vocabulary of their children higher than the children's ability would reflect on objective measurements.

Table 4.12 Pairwise Comparison: Receptive Vocabulary

a. Design: Intercept Within Subjects Design: Rater								
b. Exact statistic								
Mauchly's Test of Sphericity^a								
Measure:	Vocab				Epsilon ^b			
		Mauchly's W	Approx. Chi-Square	df	Sig.	Greenhouse-Geisser	Huynh-Feldt	Lower-bound
Within Subjects Effect								
Rater		0,859	12,350	2	0,002	0,876	0,894	0,500
Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.								
a. Design: Intercept Within Subjects Design: Rater								
b. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.								
Tests of Within-Subjects Effects								
Measure:	Vocab							
		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	
Source								
Rater	Sphericity Assumed	52,586	2	26,293	39,897	0,000	0,327	
	Greenhouse-Geisser	52,586	1,752	30,011	39,897	0,000	0,327	
	Huynh-Feldt	52,586	1,787	29,421	39,897	0,000	0,327	
	Lower-bound	52,586	1,000	52,586	39,897	0,000	0,327	
Error(Rater)	Sphericity Assumed	108,080	164	0,659				
	Greenhouse-Geisser	108,080	143,681	0,752				
	Huynh-Feldt	108,080	146,565	0,737				
	Lower-bound	108,080	82,000	1,318				

4.10.3 Expressive vocabulary findings

The statistics pertaining to expressive vocabulary, as measured by the Renfrew Word Finding Scale and parent and teacher ratings, are shown in Table 4.14. Results are reported below.

Table 4.13 Statistics Vocabulary - Expressive

Within-Subjects Factors								
Measure:	Wordfinding							
		Dependent Variable						
Rater								
1	RenfrewWordfinding							
2	TeacherExpressivevocab							
3	ParentExpressiveVocab							
Descriptive Statistics								
	Mean	Std. Deviation	N					
Renfrew Wordfinding	43,98	8,581	84					
Teacher Expressive vocab	2,48	0,799	84					
Parent Expressive Vocab	3,13	0,724	84					
Multivariate Tests^a								
Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	
Rater	Pillai's Trace	0,965	1143,776 ^b	2,000	82,000	0,000	0,965	
	Wilks' Lambda	0,035	1143,776 ^b	2,000	82,000	0,000	0,965	
	Hotelling's Trace	27,897	1143,776 ^b	2,000	82,000	0,000	0,965	
	Roy's Largest Root	27,897	1143,776 ^b	2,000	82,000	0,000	0,965	

For expressive vocabulary, there was a significant difference between the three measurements / ratings: $F(2,166) = 2006.466, p = 0.000, \eta^2 = 0.960$ (Ellis & Steyn, 2003).

Table 4.14 Pairwise Comparison: Expressive Vocabulary

a. Design: Intercept Within Subjects Design: Rater								
b. Exact statistic								
Mauchly's Test of Sphericity^a								
Measure:	Wordfinding				Epsilon ^b			
		Mauchly's W	Approx. Chi-Square	df	Sig.	Greenhouse-Geisser	Huynh-Feldt	Lower-bound
Within Subjects Effect								
Rater		0,034	277,265	2	0,000	0,509	0,509	0,500
Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.								
a. Design: Intercept Within Subjects Design: Rater								
b. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.								
Tests of Within-Subjects Effects								
Measure:	Wordfinding							
		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	
Source								
Rater	Sphericity Assumed	94948,341	2	47474,171	2006,466	0,000	0,960	
	Greenhouse-Geisser	94948,341	1,017	93334,027	2006,466	0,000	0,960	
	Huynh-Feldt	94948,341	1,018	93275,660	2006,466	0,000	0,960	
	Lower-bound	94948,341	1,000	94948,341	2006,466	0,000	0,960	
Error(Rater)	Sphericity Assumed	3927,659	166	23,661				
	Greenhouse-Geisser	3927,659	84,436	46,517				
	Huynh-Feldt	3927,659	84,488	46,488				
	Lower-bound	3927,659	83,000	47,321				

This was followed by pairwise comparisons to investigate the nature of the differences between measures. It was found (see Table 4.15) that the difference between the test of expressive vocabulary and teacher ratings was significant ($p = 0.000$), as was the difference between test and parent rating ($p = 0.000$). The difference between the teacher and parent ratings was not significant ($p = 0.094$). Inspection of the mean scores showed that the actual test score for expressive vocabulary was 43.06, which is a mental age average given in months – thus, a mental age below 4 years – which confirms the below average performance of the group. (This average mental age of 43 months can be compared to the average chronological age group which was 70.5 months, thus a difference of 27 months, which is more than two chronological years.) The teacher and parent ratings were 2.46 and 3.13, respectively, out of a possible score of 4. It is thus clear that both teachers and parents tended to rate the vocabulary of their children higher than the average and thus higher than the child’s actual below average ability as reflected in the objective measurements.

Table 4.15 Pairwise Comparison: Vocabulary Expressive

Pairwise Comparisons						
Measure:		Vocab				
(I) Rater		Mean Difference (I-J)	Std. Error	Sig. ^b	95% Confidence Interval for Difference ^b	
					Lower Bound	Upper Bound
1	2	-.880 [*]	0,135	0,000	-1,149	-0,610
	3	-1,048 [*]	0,139	0,000	-1,325	-0,771
2	1	.880 [*]	0,135	0,000	0,610	1,149
	3	-0,169	0,100	0,094	-0,367	0,030
3	1	1,048 [*]	0,139	0,000	0,771	1,325
	2	0,169	0,100	0,094	-0,030	0,367

Based on estimated marginal means
^{*}. The mean difference is significant at the .05 level.
^b. A djustment for multiple comparisons : Least Significant Difference (equivalent to no adjustments).

4.10.4 Renfrew Action Picture Test (Information)

Statistics pertaining to the information measure of the Renfrew Action Picture Test are provided in Table 4.16, and the results are reported below.

Table 4.16 Statistics Renfrew Action Picture Test - Information

Tests of Within-Subjects Contrasts							
Measure:		Language_information					
Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Rater	Linear	70070,006	1	70070,006	1938,284	0,000	0,959
	Quadratic	24878,335	1	24878,335	2227,114	0,000	0,964
Error(Rater)	Linear	3000,494	83	36,151			
	Quadratic	927,165	83	11,171			

Tests of Between-Subjects Effects							
Measure:		Language_information					
Transformed Variable:		Average					
Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Intercept		68838,194	1	68838,194	2505,067	0,000	0,968
Error		2280,806	83	27,480			

Estimated Marginal Means				
1. Grand Mean				
Measure:		Language_information		
Mean	Std. Error	95% Confidence Interval		
		Lower Bound	Upper Bound	
16,528	0,330	15,871	17,185	

For conveying information when describing a picture, there was a significant difference between the three measurements / ratings (see Table 4.17): $F(2,166) = 2006.466$, $p = 0.000$, $\eta^2 = 0.960$ (Ellis & Steyn, 2003).

Table 4.17 Comparison Renfrew Action Picture Test - Information

a. Design: Intercept Within Subjects Design: Rater								
b. Exact statistic								
Mauchly's Test of Sphericity^a								
Measure:	Language_information				Epsilon ^b			
Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Greenhouse-Geisser	Huynh-Feldt	Lower-bound	
Rater	0,034	277,265	2	0,000	0,509	0,509	0,500	
Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.								
a. Design: Intercept Within Subjects Design: Rater								
b. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.								
Tests of Within-Subjects Effects								
Measure:	Language_information							
Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	
Rater	Sphericity Assumed	94948,341	2	47474,171	2006,466	0,000	0,960	
	Greenhouse-Geisser	94948,341	1,017	93334,027	2006,466	0,000	0,960	
	Huynh-Feldt	94948,341	1,018	93275,660	2006,466	0,000	0,960	
	Lower-bound	94948,341	1,000	94948,341	2006,466	0,000	0,960	
Error(Rater)	Sphericity Assumed	3927,659	166	23,661				
	Greenhouse-Geisser	3927,659	84,436	46,517				
	Huynh-Feldt	3927,659	84,488	46,488				
	Lower-bound	3927,659	83,000	47,321				

This was followed by pairwise comparisons to investigate the nature of the differences between measures (see Table 4.18). It was found that the difference between the objective test results for language information and the teacher rating was significant ($p = 0.000$), as was the difference between these test results and the parent rating ($p = 0.000$). The difference between the teacher and parent ratings was also significant ($p = 0.000$). Inspection of the mean scores showed that the score for the information measure was 43.976 months. This score becomes significant when compared to the average age of the group, which was 70.5 months, thus indicating a 26-month gap between mental age for this measure and chronological age. The teacher and parent ratings were 2.476 and 3.131, respectively, out of a total score of 4. It is thus clear that both teachers and parents tended to rate the amount of information used by the children higher than the child's ability as reflected in the objective measurements. The parents actually scored them even higher than the teachers did.

Table 4.18 Pairwise Comparison: Renfrew Action Picture Test - Information

2. Rater						
Estimates						
Measure:	Language_information			95% Confidence Interval		
Rater	Mean	Std. Error	Lower Bound	Upper Bound		
1	43,976	0,936	42,114	45,838		
2	2,476	0,087	2,303	2,650		
3	3,131	0,079	2,974	3,288		
Pairwise Comparisons						
Measure:	Language_information				95% Confidence Interval for Difference ^b	
(I) Rater		Mean Difference (I-J)	Std. Error	Sig. ^b	Lower Bound	Upper Bound
1	2	41.500 [*]	0,905	0,000	39,700	43,300
	3	40.845 [*]	0,928	0,000	39,000	42,691
2	1	-41.500 [*]	0,905	0,000	-43,300	-39,700
	3	-.655 [*]	0,101	0,000	-0,855	-0,454
3	1	-40.845 [*]	0,928	0,000	-42,691	-39,000
	2	.655 [*]	0,101	0,000	0,454	0,855

Based on estimated marginal means
^a. The mean difference is significant at the .05 level.
^b. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

4.10.5 Renfrew Action Picture Test (Grammar)

Statistics pertaining to the measure of the Renfrew Action Picture Test (Grammar) are provided in Table 4.19, and the results are reported below.

Table 4.19 Statistics Renfrew Action Picture Test - Grammar

Within-Subjects Factors							
Measure:	Grammar						
Rater	Dependent Variable						
1	RenfrewLanguagegrammar						
2	TeacherGrammar						
3	ParentGrammar						
Descriptive Statistics							
	Mean	Std. Deviation	N				
Renfrew Language grammar	49,07	14,012	83				
Teacher Grammar	2,36	0,820	83				
Parent Grammar	2,75	0,853	83				
Multivariate Tests ^a							
Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Rater	Pillai's Trace	0,928	522,352 ^b	2,000	81,000	0,000	0,928
	Wilks' Lambda	0,072	522,352 ^b	2,000	81,000	0,000	0,928
	Hotelling's Trace	12,898	522,352 ^b	2,000	81,000	0,000	0,928
	Roy's Largest Root	12,898	522,352 ^b	2,000	81,000	0,000	0,928
a. Design: Intercept Within Subjects Design: Rater							
b. Exact statistic							
Mauchly's Test of Sphericity ^a							
Measure:	Grammar						
	Mauchly's W	Approx. Chi-Square	df	Sig.	Epsilon ^b		
Within Subjects Effect					Greenhouse-Geisser	Huynh-Feldt	Lower-bound
Rater	0,015	337,975	2	0,000	0,504	0,504	0,500
Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.							
a. Design: Intercept Within Subjects Design: Rater							
b. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.							
Tests of Within-Subjects Effects							
Measure:	Grammar						
Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Rater	Sphericity Assumed	119743,687	2	59871,843	950,011	0,000	0,921
	Greenhouse-Geisser	119743,687	1,008	118820,871	950,011	0,000	0,921
	Huynh-Feldt	119743,687	1,008	118786,874	950,011	0,000	0,921
	Lower-bound	119743,687	1,000	119743,687	950,011	0,000	0,921
Error(Rater)	Sphericity Assumed	10335,647	164	63,022			
	Greenhouse-Geisser	10335,647	82,637	125,073			
	Huynh-Feldt	10335,647	82,660	125,037			
	Lower-bound	10335,647	82,000	126,044			

As shown in Table 4.19, for usage of grammar when describing a picture, there was a significant difference between the three measurements / ratings: $F(2,164) = 950.011$, $p = 0.000$, $\eta^2 = 0.921$ (Ellis & Steyn, 2003). This was followed by pairwise comparisons to investigate the nature of the differences between measures (see Table 4.20). It was found that the difference between the objective test for grammar and teacher rating was significant ($p = 0.000$), as was the difference between the objective test and parent rating ($p = 0.000$). The difference between the teacher and parent ratings was also significant ($p = 0.001$). Inspection of the mean scores

showed that the actual test score for the grammar measure of the Renfrew Action Picture Test (Grammar) was 49 months (mental age in months) whilst the actual mental age average (chronological age) was 70.5 months. There is thus a definite under-performance of 20.5 months (nearly 2 years). The teacher and parent ratings were, however, above average at 2.36 and 2.75, respectively, out of a possible score of 4. It is thus clear that both teachers and parents tended to rate the grammar used by the children higher (above average) than the child’s ability was reflected on objective measurements (below average) (see Table 4.20).

Table 4.20 Pairwise Comparison: Renfrew Action Picture Task - Grammar

Estimates						
Measure:	Grammar					
Rater	Mean	Std. Error	95% Confidence Interval			
			Lower Bound	Upper Bound		
1	49,072	1,538	46,013	52,132		
2	2,361	0,090	2,182	2,541		
3	2,747	0,094	2,561	2,933		

Pairwise Comparisons						
Measure:	Grammar					
(I) Rater		Mean Difference (I-J)	Std. Error	Sig. ^a	95% Confidence Interval for Difference ^b	
					Lower Bound	Upper Bound
1	2	46.711 [*]	1,496	0,000	43,736	49,686
	3	46.325 [*]	1,519	0,000	43,304	49,347
2	1	-46.711 [*]	1,496	0,000	-49,686	-43,736
	3	-.386 [*]	0,111	0,001	-0,606	-0,165
3	1	-46.325 [*]	1,519	0,000	-49,347	-43,304
	2	.386 [*]	0,111	0,001	0,165	0,606

Based on estimated marginal means

^a. The mean difference is significant at the .05 level.

^b. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

4.10.6 Narrative speech - Bus Story Test (Information)

Statistics for the information measure of the Renfrew Bus Story Test are provided in Table 4.21, and the results are reported below. For this measure, there was a significant difference between the three measurements / ratings: $F(2,158) = 1437,066$, $p = 0.000$, $\eta^2 = 0.946$ (see Table 4.22).

Table 4.21 Statistics Renfrew Bus Story Test

Within-Subjects Factors			
Measure:	Bus_story		
Rater	Dependent Variable		
1	Renfrewbusstoryinformation		
2	TeacherStory		
3	ParentStory		
Descriptive Statistics			
	Mean	Std. Deviation	N
Renfrew bus story information	58,84	13,471	80
Teacher Story	2,23	0,900	80
Parent Story	2,98	0,675	80

Table 4.22 Within Subjects Renfrew Bus Story Test

Tests of Within-Subjects Effects							
Measure:	Bus_story						
Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Rater	Sphericity Assumed	168697,508	2	84348,754	1437,066	0,000	0,948
	Greenhouse-Geisser	168697,508	1,009	167145,908	1437,066	0,000	0,948
	Huynh-Feldt	168697,508	1,010	167086,611	1437,066	0,000	0,948
	Lower-bound	168697,508	1,000	168697,508	1437,066	0,000	0,948
Error(Rater)	Sphericity Assumed	9273,825	158	58,695			
	Greenhouse-Geisser	9273,825	79,733	116,310			
	Huynh-Feldt	9273,825	79,762	116,269			
	Lower-bound	9273,825	79,000	117,390			
Tests of Within-Subjects Contrasts							
Measure:	Bus_story						
Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Rater	Linear	124824,756	1	124824,756	1408,587	0,000	0,947
	Quadratic	43872,752	1	43872,752	1524,779	0,000	0,951
Error(Rater)	Linear	7000,744	79	88,617			
	Quadratic	2273,081	79	28,773			

This was followed by pairwise comparisons to investigate the nature of the differences between measures (see Table 4.22). It was found that the difference between the objective test for language information and teacher rating was significant ($p = 0.000$), as was the difference between the objective test and parent rating ($p = 0.000$). The difference between the teacher and parent ratings was also significant ($p = 0.000$). Inspection of the mean scores showed that the actual test score for the information measure of the Renfrew Bus Story Test was 58.84 (mental age in months) whilst the actual mental age average (chronological age) was 70.5 months. There is thus a definite under-performance of 11 months, nearly a year. The teacher

and parent ratings were, however, above average at 2.23 and 2.98, respectively, out of a possible score of 4. It is thus clear that both teachers and parents tended to rate the amount of information used by the children higher (above average) than the child's ability was reflected in the objective measurements (below average).

Table 4.23 Pairwise Comparison: Renfrew Bus Story Test Results

Measure:		Pairwise Comparisons					
Bus_story					95% Confidence Interval for Difference ^b		
(I) Rater		Mean Difference (I-J)	Std. Error	Sig. ^b	Lower Bound	Upper Bound	
1	2	56.613 [*]	1,474	0,000	53,678	59,547	
	3	55.863 [*]	1,488	0,000	52,900	58,825	
2	1	-56.613 [*]	1,474	0,000	-59,547	-53,678	
	3	-.750 [*]	0,117	0,000	-0,984	-0,516	
3	1	-55.863 [*]	1,488	0,000	-58,825	-52,900	
	2	.750 [*]	0,117	0,000	0,516	0,984	
Based on estimated marginal means							
* . The mean difference is significant at the .05 level.							
b. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).							
Multivariate Tests							
	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	
Pillai's trace	0,952	773.769 ^a	2,000	78,000	0,000	0,952	
Wilks' lambda	0,048	773.769 ^a	2,000	78,000	0,000	0,952	
Hotelling's trace	19,840	773.769 ^a	2,000	78,000	0,000	0,952	
Roy's largest root	19,840	773.769 ^a	2,000	78,000	0,000	0,952	
Each F tests the multivariate effect of Rater. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.							
a. Exact statistic							

4.10.7 School Readiness in Language Abilities

Table 4.24 contains the statistics for the results of the KLST-2, a test that measures school readiness in terms of language skills. As indicated in Table 4.24, there was a significant difference between the three measurements / ratings: $F(2,158) = 27,956$, $p = 0.000$, $\eta^2 = 0.261$ (Ellis & Steyn, 2003).

Table 4.24 Statistics School Readiness (Language Abilities)

Within-Subjects Factors									
Measure:	School_readiness								
Rater	Dependent Variable								
1	KLSTschoolreadiness								
2	TeacherSchoolReadiness								
3	ParentSchoolReadiness								
Descriptive Statistics									
	Mean	Std. Deviation	N						
KLST (school readiness) stanine	2,24	1,255	80						
Teacher School Readiness	2,60	0,789	80						
Parent School Readiness	3,21	0,774	80						
Multivariate Tests^a									
Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared		
Rater	Pillai's Trace	0,354	21,411 ^b	2,000	78,000	0,000	0,354		
	Wilks' Lambda	0,646	21,411 ^b	2,000	78,000	0,000	0,354		
	Hotelling's Trace	0,549	21,411 ^b	2,000	78,000	0,000	0,354		
	Roy's Largest Root	0,549	21,411 ^b	2,000	78,000	0,000	0,354		
a. Design: Intercept Within Subjects Design: Rater									
b. Exact statistic									

Table 4.25 Within Subject Statistics School Readiness

Mauchly's Test of Sphericity ^a								
Measure:	School_readiness						Epsilon ^b	
Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Greenhouse-Geisser	Huynh-Feldt	Lower-bound	
Rater	0,846	13,037	2	0,001	0,867	0,884	0,500	
Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.								
a. Design: Intercept Within Subjects Design: Rater								
b. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.								
Tests of Within-Subjects Effects								
Measure:	School_readiness							
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared		
Rater	Sphericity Assumed	38,858	2	19,429	27,956	0,000	0,261	
	Greenhouse-Geisser	38,858	1,733	22,420	27,956	0,000	0,261	
	Huynh-Feldt	38,858	1,769	21,971	27,956	0,000	0,261	
	Lower-bound	38,858	1,000	38,858	27,956	0,000	0,261	
Error(Rater)	Sphericity Assumed	109,808	158	0,695				
	Greenhouse-Geisser	109,808	136,924	0,802				
	Huynh-Feldt	109,808	139,723	0,786				
	Lower-bound	109,808	79,000	1,390				

This was followed by pairwise comparisons (see Table 4.26) to investigate the nature of the differences between measures. It was found that the difference between the objective test for language school readiness and teacher rating was significant ($p = 0.004$), as was the difference between objective test and parent rating ($p = 0.000$). The difference between the teacher and

parent ratings was also significant ($p = 0.000$). Inspection of the mean scores showed that the KLST-2 test score for school readiness (in terms of language skills) was 2.238 (which was a value given as a stanine, where 9 is the top performance possibility and 1 the lowest), thus indicating a below average performance. The teacher and parent ratings were, however, 2.6 and 3.213, respectively, out of a possible score of 4. It is thus clear that both teachers and parents tended to rate the children's school readiness higher (better) than their ability was reflected in the objective measurements (far below average).

Table 4.26 Pairwise Comparison: School readiness language

2. Rater						
Estimates						
Measure:	School_readiness					
Rater	Mean	Std. Error	95% Confidence Interval			
			Lower Bound	Upper Bound		
1	2,238	0,140	1,958	2,517		
2	2,600	0,088	2,424	2,776		
3	3,213	0,087	3,040	3,385		
Pairwise Comparisons						
Measure:	School_readiness					
(I) Rater		Mean Difference (I-J)	Std. Error	Sig. ^b	95% Confidence Interval for Difference ^b	
					Lower Bound	Upper Bound
1	2	-.362	0,124	0,004	-0,608	-0,117
	3	-.975	0,155	0,000	-1,284	-0,666
2	1	.362	0,124	0,004	0,117	0,608
	3	-.613	0,113	0,000	-0,838	-0,387
3	1	.975	0,155	0,000	0,666	1,284
	2	.613	0,113	0,000	0,387	0,838
Based on estimated marginal means						
*. The mean difference is significant at the .05 level.						
b. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).						
Multivariate Tests						
	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Pillai's trace	0,354	21,411 ^a	2,000	78,000	0,000	0,354
Wilks' lambda	0,646	21,411 ^a	2,000	78,000	0,000	0,354
Hotelling's trace	0,549	21,411 ^a	2,000	78,000	0,000	0,354
Roy's largest root	0,549	21,411 ^a	2,000	78,000	0,000	0,354
Each F tests the multivariate effect of Rater. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.						
a. Exact statistic						

5 Chapter Five: Discussion and Conclusion

5.1 Introduction

Underdeveloped language skills in children who start school and who move (in the South African context) from Grade R to Grade 1 pose serious risks for academic failure (Cunningham & Stanovich, 1997). This study aimed to determine whether involving parents and teachers during the first half of the Grade R year might effectively identify children who are at risk for academic problems due to poor language skills, so that early treatment procedures can be put into place. Against the background of the high dropout rate noted in South African schools, where 60% of learners who enrol for Grade 1 do not finish Grade 12 (Department of Basic Education, 2005), early intervention is important. Such intervention can remediate language problems and thereby reduce their negative impact on the academic performance of children. It is, however, difficult to ascertain the nature of the early intervention that is needed by L2 learners if limited information is available on their language development, including the rate and trajectory of their language development after the onset of intensive exposure to their L2 (White, 2019). It is extremely important for children to learn to read with comprehension by the end of Grade 3, to improve their chances of future academic success (Spaull, 2016). Bearing in mind the poor levels of language and literacy reported for Grade 4 (making the South African education system the worst out of 50 participating countries; cf. Howie, et al., 2016), it appears important to assist at-risk learners as soon as possible.

Children learn in three major contexts: within the family, at school and in the community (Meier & Lemmer, 2015). Many learners in South Africa do not attend school in their mother tongue and use a L2 for academic purposes. These learners can, however, not succeed academically if they lack the language skills needed to access the curriculum optimally, i.e., if their L2 vocabulary, grammar, narrative skills and reasoning skills are not sufficiently developed. The study was thus undertaken to ascertain whether the results obtained by performing standardised language assessment are indeed a reflection of the parents' and teachers' perceptions of the learners' language skills. The school is tasked with the responsibility to develop effective communication skills from school to home but also from home to school. If this bond of two-way communication is created effectively, it will enhance learning, motivation and support for the child (Meier & Lemmer, 2015). As will be discussed

below, it was found that parents and teachers seem to appear less concerned about the children's general language skills than what is warranted according to objective tests.

The education system in South Africa is faced with many problems. It has been reported that many South African teachers have below-basic levels of content knowledge, some of them not being able to answer the questions that they need to pose to the learners, as found in research on Grade 6 Mathematics classes (Spaull, 2013). Overcrowded classrooms are a serious problem, especially in the lower quintile section of schools or schools that are more rural (Spaull, 2016). The prescribed ideal maximum class size in South Africa in the Foundation Phase is 35 (Annual Survey of Schools, 2013). Despite this recommendation, only one of our nine provinces comes close to this, with 43% of its classes having fewer than 35 learners (Spaull, 2016). Class size is not the only problem; inadequately trained teachers (Savides, 2017) with poor resources, support and even knowledge of the language that they are supposed to teach in are also aggravating learners' progress (see, also, Ssetandi et al., 2019). Language barriers between teachers and their learners are not receiving enough attention, and a lack of funding for intervention and support for EL2 learners is evident (Alexander, 2005). The underperformance of EL2 learners is not new in the South African context (White, 2019), but satisfactory solutions for this underperformance have not yet been found.

Below, the findings of the current study on the language skills of Grade R learners, as indicated by standardised testing, are discussed, followed by a discussion of the parent and teacher ratings of these skills. Against the background of these discussions, I will answer the two research questions set out in Chapter 1. Thereafter, I will point out some of the study's strengths and limitations, before concluding with suggestions for further research on the topic of the language skills of young EL2 learners.

5.2 Vocabulary – comprehension and production

L2 learners have noted that they experience considerable difficulty with vocabulary and often identify this area as their greatest single source of problems (Meara, 1980). The importance of vocabulary for comprehension in reading and writing (Farstrup & Samuels, 2008), and for overall academic success, is undisputed (Anderson & Nagy, 1991). Limited vocabulary skills, on the other hand, are one of the factors which lead to poor reading and academic performance (Ssetanda, et al., 2019). In South Africa, the improvement of L2 learners' vocabulary skills in

English will thus greatly improve the educational progress of such learners who have English as language of learning and teaching.

When the vocabulary test results of the group of Grade R learners in this study were analysed, it was found that many of them underperformed on both the comprehension and usage of English vocabulary items, as scored in the specific test, compared to age group expectations for monolingual child L1 speakers of English. This might have serious implications in the light of various studies that have found a clear link between vocabulary and reading as well as academic success (see Ssentanda et al., 2019). Upon examining their comprehension of words, it was found that 91% of learners in the study scored on stanines 1 to 3 when compared to their chronological age group. These levels of functioning could be regarded as warning signs of insufficient receptive vocabulary levels for learning to read well.

Examining the learners' vocabulary usage (word naming skills), scores obtained were given in mental ages ranging from a low 36-month level up to a 84-month level, with a mean mental age of 44 months. It is thus clear that many learners underperformed here when taking into consideration that their chronological ages varied from 64 to 78 months, since the median score was 44 months, indicating a mental age of 3 years 8 months. This leaves a discrepancy of 27 months (2 years 3 months) between the chronological age and the mental age for expressive word finding. Again, this could be a serious warning sign: that the learners are struggling to name objects (some of them everyday objects) appropriately could be an indication of a too limited expressive vocabulary.

A further concern is that both parents and teachers appear to think that the learners have better English vocabulary skills than what the objective tests appear to indicate. Teachers felt that 73% of their learners had an above average (slight to strong) understanding of vocabulary, whilst 90% of the learners in fact scored on stanine levels of 1-3 (which is very far below average). On their part, parents felt that 73% of the learners were above average when in fact only 9% of the learners tested on stanines 4, 5 and 6, and no learners tested high above average (on stanines 7, 8 or 9). Such overestimation of the learners' vocabulary skills could result in a delay in seeking intervention for language skills that are possibly not age-appropriate, should such intervention be sought at all. Language enrichment programs at the Foundation Phase level are negatively affected by a lack of funds (see White, 2019). The plight of the teachers, who have to cope with a full (and often overcrowded; see Spaul, 2016) class of learners with

varying levels of proficiency in English, should also not be disregarded (Davies & Rossouw, 2012).

Parents who themselves came through a flawed educational system and also struggle with English as a L2 are often not well equipped to identify language problems in their children early enough, and struggle to assist their children with homework and academic guidance (Ogundele, et al., 2014). For the enhancement of children's vocabulary growth and development, there cannot be a substitute for volumes of experience with rich and natural language (Anderson & Nagy, 1991). If schools and families are seen as partners in the child's education and language enrichment (Meier & Lemmer, 2015), they should know what is expected of a child at school-going levels. This does not appear to be the case in the current study, as both parents and teachers rate the learners' vocabulary skills better than what the objective results indicate.

5.3 Information provided, grammar and storytelling abilities

Language is the expression of ideas by means of speech-sounds combined into words, and words are thereafter combined into sentences, resulting in the conveying of ideas and thoughts (Crystal & Robins, 2019). It is thus important that learners starting school should be able to express themselves adequately and sufficiently if they are to participate in the activities of the Foundation Phase curriculum. Although many children in South Africa have English as a second or additional language, English is widely used as language of learning and teaching, even in the Foundation Phase. This implies that a certain level of English language proficiency is required, and a lack thereof might lead to insufficient academic achievement and problems with mastering reading and writing (Alexander, 2005; Brock-Utne & Skattum, 2011).

Against this background, formal and objective language tests were conducted with Grade R learners in three classes with English as the only medium of instruction. The learners' abilities to supply information and the grammatical content of the information were shown to be insufficient, averaging at the level of 4 years, while the group's chronological age was 5 years 8 months. Whilst one would not think of letting a child at this chronological age (4 years) start formal academic schooling, this could effectively be happening in South Africa. Information conveyed during storytelling and sentence length during storytelling were slightly better, at 59 to 60 months. If the child thus first heard the story, he/she could retell it better (in terms of

amount of information provided) than when the child had to generate the story, without first having heard it.

The results of the standardised tests were compared with the ratings of the teachers and the parents regarding the learners' language abilities. Again, both groups of adults appeared to rate the children's language abilities as better than what the standardised tests indicated. Parents felt that 80% of learners' information supplied was above average and 61% felt that their grammatical abilities were above average. They also felt that 75% of the learners were above average in terms of storytelling. Teachers felt that 42% of learners were above average on information levels and 39% were above average in their grammatical usage. They furthermore felt that 34% were above average in their storytelling abilities.

This discrepancy between (lower) scores on the standardised tests and (higher) ratings of parents and teachers could lead to a sense of complacency, as the parents will not expect failure if the teacher is not concerned. Learners might then struggle to perform optimally and might become part of the disconcerting Grade 4 statistics reported by Howie et al. (2016), which indicate that learners in this grade struggle to read and write at grade level.

5.4 School readiness

Language proficiency is seen as a very important indicator of school readiness and is described as the vehicle that transports academic readiness (Stothard, 1998; Aina, et al., 2013). If the child enters school with insufficient language skills, he/she could be set up for failure as the gap between the child's actual language level and the language level required usually widens rather than shrinks if left unattended (Cunningham & Stanovich, 1997). On checking the language needed for school readiness, it was found that 85% of the group was only scoring on stanines 1 to 3. None of the learners scored on stanines 7, 8 or 9. This study furthermore found that teachers and parents experienced learners as more school-ready than what the tests appeared to indicate. Parents felt that 75% of this group was slightly to strongly above average in terms of the language needed for school readiness. Teachers were slightly more conservative in their ratings and thought that 55% of learners were slightly to strongly above average in school readiness. School readiness could thus be insufficiently linked to the child's abilities to reason and express himself/herself in what was for most participants their L2.

5.5 Teacher ratings

Teachers are often described as the academic facilitators in the classroom. The reality in the South African context is, however, that they are over-burdened in terms of the number of learners in their classroom, various administrative tasks, a lack of resources, a lack of parent partnership, and varying degrees of language proficiencies in one classroom that they must deal with (Condy & Blease, 2014).

As stated above, in this study, it was found that teachers perceived learners' skills as better than what their performance on objective tests indicated. Earlier intervention will lead to better outcomes for the learners in a perfect educational system. Unfortunately, the South African system is far from perfect (see, for instance, Howie, et al., 2016). It might be that teachers realise that the system is failing them and that even if they identify problems, there is no additional support available to address the identified problems and to adequately assist the learners. South Africa's policymakers should consider implementing more intensive, continuous, and localised teacher training (Mlachila & Moeletsi, 2019). It is important that teachers realise that when learners' skills are rated as poor, this does not necessarily reflect on their skills as teachers (Mlachila & Moeletsi, 2019).

5.6 Parent ratings

In South Africa, there is a huge disparity in the school systems in terms of resources, as well as in the socioeconomic levels of the school-aged society. Children from families with a low socio-economic status typically start their schooling career with fewer skills than children from middle or high socio-economic groups, and this often starts them on a path of low performance (Hauser-Cram, Sirin, & Stipek, 2003). Parents in South Africa want their children to receive their schooling in English, as it is seen as a powerful language (Evans & Cleghorn, 2014). This is despite literature that shows that children who are taught in their mother tongue in Grades 1 to 3, and are gradually introduced to English as medium of instruction from Grade 4 onwards, perform better than those who go "straight for English" (Fengu, 2017).

Parent involvement remains crucial in all spheres of a child's life, including in his/her academic progress (De Witt, 2009). However, parents often do not provide the necessary support with their children's homework, and many factors can contribute to this: parents often arrive home late, are situated in low socio-economic environments (and therefore lack resources), and experience "English language barriers" (see Ndebele, 2018). Concerning these barriers, parents

often lack the English language skills needed to identify and expand on their child's English language skills. They often also lack the funds to privately expand the child's language skills by means of additional English lessons, for instance.

It is thus unfortunate to note that parents in this study perceived their children as better-equipped in terms of their language skills than what the formal, objective tests appeared to indicate. This could result in children being sent to Grade 1 whilst lacking language readiness, which might set them up for academic failure.

5.7 Can parents and teachers identify language problems in Grade R learners as well as objective measures do?

Recall that the two research questions were (i) whether the language problems of Grade R learners are noticed immediately or soon enough after entering Grade R by the school teachers and/or parents, and (ii) whether teacher and parent reports about Grade R learners' language were confirmed by objective measurements of child language and of school readiness in terms of language abilities. Based on the results of this study, the answers to these questions are that language problems are probably not noted early enough by either the school teacher or the parents. Both groups of adults in this study felt more positive about the learners' language abilities than they probably should. Given their relative lack of concern over the learners' language skills, they were withholding assistance from the learners, not realising that such assistance was in fact required. There was also a disparity in this study between the results of the objective standardised tests and the perceptions of both the parents and the teachers. A comparison of the test results and the teachers' and parents' ratings indicated (especially) parents' potentially false perception of their children's language skills as mostly above average, when these skills were in fact mostly under average according to the test results.

Education is supposed to provide a way out of the poverty trap, but the South African education system is at present failing to do so: 27% of learners in South Africa who have attended school for six years still cannot read, compared with 4% in Tanzania and 19% in Zimbabwe. This is despite the fact that on average South Africa allocates between 4.7% and 4.9% of its gross domestic product to basic education, whereas Tanzania allocates only about 3.5% but obtains better results (Nogozo & Mtantato, 2019). The South African education system appear to have two schooling systems – one for the minority, wealthy segment of the population who attend

Quintile 4 and 5 government schools or private schools, and another for the majority, mostly poor population attending lower quintile schools. The former schools are functional and equip learners with skills that they can use in the work place. The latter schools appear to be less functional and less able to equip their learners with the knowledge and skills that they should be acquiring at school. Their talents and abilities remain underdeveloped and their economic opportunities remain limited. The education system at present thus reinforces social and income inequality (Nogozo & Mtantato, 2019). Parents, however, choose schools for their children and base their choice on their knowledge of the past and the goals that they entertain for their children's future (Evans & Cleghorn, 2014). Often these goals include a good proficiency in English, and parents in South Africa typically believe that exposing one's child to English as language of learning and teaching as early as possible is the best way to attain good proficiency in English (De Klerk, 2002).

It is against this backdrop that the study was conducted. A total of 87 Grade R learners participated in the study. They came from different language backgrounds, two different schools and three different classrooms. Both male and female, as well as English L1 and English L2 learners, were included. Major differences were noticed between the English L1 and English L2 groups: The English L1 learners outperformed the English L2 learners in all tests administered. This is not a novel finding; various previous studies rendered similar results (Aceh, 2014; Bley-Vroman, 1989; Bishop & Adams, 1990). A difference was also noticed between the two schools: There were more EL1 learners in School 2 than in School 1, and School 2 performed better on average than did School 1.

The teachers assessed the learners in a similar manner in the two schools in that their ratings of English L1 learners was significantly better than their ratings of English L2 learners. However, in their ratings of learners in general it was evident that they scored 32% of learners slightly above average on the skills needed and 40% slightly below average. On the objective tests, it was found that most English L2 speakers and even some English L1 speakers appear to lack age-level vocabulary skills (in terms of comprehension and production), and might struggle to describe a picture, answer questions on a picture, reason, follow grammatical rules, and narrate a story. In terms of their understanding of vocabulary, 90% of learners assessed showed vocabulary skills on stanine 3 or lower, which appears to be markedly below standard. In stark contrast to this result, the parents thought that 85% of their children were slightly to strongly above age group norms. Teachers also indicated that 73% of the learners were either

slightly or strongly above age group norms. There is thus a discrepancy between the adults' ratings and the results of the standardised tests. The answer to the first research question is thus that language problems are probably not identified early enough in the Grade R year by parents or teachers.

In this study, it was also found that 80% of parents thought that their children were slightly to strongly above average regarding school readiness compared to objective tests on which only 15% of learners scored a stanine of 4 (average) or above. Although teachers were slightly less optimistic, they still thought that more than half of the class (55%) were slightly to strongly school ready despite the test results showing that only 15% of learners performed at a language school readiness stanine of 4 or higher. None of the learners in fact performed on levels 7, 8 or 9, which would be typical for learners with above average language skills. This is a concerning finding.

Research has shown that early identification of children with language issues is critical for effective intervention, and yet many children are not identified until school age. The use of parent-completed rating scales might improve early identification if parent ratings are found to be reliable and valid (Massa, Gomes, Tartter, Wolfson, & Halperin, 2008). Most parents would rely heavily on the teacher's recommendations and the teacher's perceptions of their child's academic performance. The socio-economic profile of many parents also shows that even if they were made aware of the limitations in their children's language skills and given the advice to obtain professional assistance, they would not have the means to pay for such assistance. In this regard, note that the unemployment rate in South Africa increased to 29% in the second quarter of 2019, which leaves 6.65 million people in South Africa jobless (Moya, 2019). Compared to the 2 to 9% of European countries, this is a high unemployment rate. Even measured against other sub-Saharan countries such as Zimbabwe (5%), Malawi (6%), Botswana (17%), and Zambia (7%), the picture in South Africa looks bleak (Unemployment rate, 2019). Many parents might also think that their child's language delay or difficulties are normal for a child functioning in his/her L2 and that their child will outgrow these; such parents might not have a sense of urgency regarding seeking assistance for language problems (Bedore, Pena, Joyner, & Macken, 2011).

Parents – especially those who themselves have low levels of English proficiency – often rely on the school to make them aware of insufficient English language skills in their children. If

parents are, however, not made aware of their child's verbal limitations (i.e., if teacher ratings and school reports are reasonably positive, even above average), there would little concern on the side of the parent. Many parents might thus not foresee poor academic progress for their children. If the statistics of poor school completion in South Africa are taken into consideration (see Department of Basic Education, 2005), early intervention and parental awareness of problem areas are important. Such intervention can remediate language problems and thereby reduce their negative impact on learners' academic performance and increase the possibility of school completion. However, there appear to be discrepancies between objective test results and the perceptions of both teachers and parents.

In my opinion, teacher's not identifying language-related problems might be an even bigger concern than parents not foreseeing these problems, as teachers are usually perceived as the gatekeepers, determining who can and who cannot progress to the next grade. The schools that the participants of this study were attending were both Quintile 5 schools, where parents pay school fees, class sizes are below 35 learners per class, teachers have degrees and several years of Foundation Phase teaching experience, and some classes have an assistant helping the teacher in the class. Yet language problems and apparent complacency about low English proficiency levels were evident. This does not bode well for less well-resourced and overcrowded schools on the lower quintiles, where teaching takes place through the medium of English but some teachers themselves have low proficiency in English.

Improved teacher training to close knowledge and skills gaps, improved school management and greater teacher accountability are some of the solutions mentioned for the problems experienced in South African schools (Mlachila & Moeletsi, 2019). Other suggestions include better training in and increased awareness of the value of language and vocabulary in the Foundation Phase (see Goulden, et al., 1990; Nation, 2003), as well as continued efforts to improve the availability of quality textbooks and related learning materials, and improving parent involvement to positively impact learner performance (Mlachila & Moeletsi, 2019).

5.8 Strengths and limitations of the study

One of the strengths of the study is its participant numbers. The child participants who were tested with the language assessment battery were 87 learners. The teachers completed forms

on all 87 of the learners, and more than 95% of the learners' parents also completed a questionnaire on their skills, creating a large data bank.

Of course, the study also has several limitations. The first thereof is that it was only conducted in Quintile 5 schools. That said, even though the schools were classified as Quintile 5 schools, this only indicates the level of socio-economic status of the community surrounding the school (and it is a measure that has been criticised; see Chudgar & Kanjee, 2009); the individual socio-economic status of each learner was not taken into consideration, which was another shortcoming of the study. The results cannot necessarily be generalised to non-Quintile 5 schools or less well-resourced contexts.

The parents' and teachers' levels of language proficiency in English (the language in which the questionnaire was completed), as well as their literacy levels, were not taken into consideration, but these could have influenced their perceptions of the learners' language skills. I also did not ask parents to complete a language background questionnaire on their child and their household. Whereas asking questions about age of initial exposure to English and other languages, quantity and quality of input received in each language, domains in which each language is used, etc. might have rendered additional valuable data, it should be noted that South African parents typically state that their children are monolingual speakers of English if they want their children to be accepted into an English-medium school (whether or not this is the case; see White, 2018), and therefore asking such questions of parents will not necessarily yield reliable data. For this reason and in order not to over-burden parents, I opted not to send home a questionnaire, which would, in any case, render data that would be very difficult to interpret.

The tests used in the current study were international tests and standardised on the basis of English L1 speakers. No African or South African cultural issues were taken into consideration when performing these tests, i.e., the tests were performed without picture or item changes or substitutions which might have made the test more appropriate for South African children. This could be seen as a major limitation of the study. Note, however, that there is a dearth of child language assessment instruments standardised for South African English (see Pascoe, Rogers, & Norman, 2013). Also, the instruments used in this study are those routinely used for diagnostic purposes by speech-language therapists in South Africa (see Van Dulm & Southwood, 2013). Care was taken to select for the purposes of this study those instruments

that are commonly used with Grade R children and which speech-language therapists typically find to yield reliable results. One could, however, argue that it is the standardised tests' results that are inaccurate and not the adult ratings that are problematic.

It is clear, though, that there are discrepancies between objective test results and perceptions of both teachers and parents. The linguistic and cultural backgrounds of the teachers, their levels of motivation, levels of language proficiency in English, training and resources available, additional language abilities in a L2 of which there are speakers amongst the learners in the class, the presence of code switching behaviour (and the frequency and function thereof), etc. were also not taken into consideration when the teachers' ratings were analysed, but doing so might have given greater insight into why the teachers gave the specific ratings that they gave.

5.9 Recommendations for future research

It is recommended that a similar study should be conducted in lower quintile schools (Quintiles 1 to 3), i.e., in less well-resourced communities. This could lead to interesting comparisons between the different types of schools.

As stated above, the levels of language proficiency of the parents and the teachers in English, as well as in their own home languages, were not taken into consideration but could influence their perceptions of the learners' language strengths and weaknesses. Thought should be given to identifying or designing creative means of obtaining accurate information on these aspects in future.

The age at which English was first presented to the learner and the quantity and quality of the input (in terms of duration but also in terms of number of conversation partners and English proficiency of those presenting the language to the learner) should be considered. The level of English exposure within the community should be further investigated, and the levels of proficiency of users of English within this community should be taken into consideration. The position of the specific learner within the family/home system should be further investigated as this could influence the amount of English used at home, as well as the levels of assistance and correction that could be rendered at home. Research indicates that if an older child (who speaks English as L2) is already being schooled in English, there will be more English input in the home context as this sibling and even the parents are more likely to use more English

(Bridges & Hoff, 2014). Although it is not always easy to obtain accurate information on English language input and proficiency in various domains from parents who opt for English-only schools, such information will make an important contribution to our understanding of English Language Learners.

The children in this study were assessed at a pre-school (Grade R) level. They could be re-assessed over time (towards the end of the Foundation Phase and again towards the Intermediate Phase) to judge their rate of progress with or without additional assistance in order to establish whether or not the formal projections of school readiness based on their objective test results came true.

5.10 Conclusion

The results of this study – namely that teachers’ and parents’ rating of Grade R learners’ language abilities does not correlate well with language test results, and that the children in the English-only classes appear to not have adequate English language proficiency – were obtained in well-resourced schools with well-trained teachers, a combination which is the exception in the South African education system. Given that even in this well-resourced context learners appear not to be well equipped with English language skills, consideration should be given to how South African teachers can be better equipped in terms of training and expertise (Nogozo & Mtantato, 2019). Whereas decreasing class sizes is important, improving the quality of the educator’s training and teaching skills is also important, so the learners will be equipped to handle the demands of the Fourth Industrial Revolution and actively apply their knowledge to the problem-solving that is needed (Nogozo & Mtantato, 2019). Educator training pertains more to the future teachers than to teachers who are already in the system. For the latter, creative ways need to be found to improve their English language proficiency if they are required to teach in English, including their academic English (so as to not only focus on their conversational English). More training is required for teachers in language-related fields, on the different aspects of language development, as well as on the value of language in education. The aim would be for teachers to have the ability to match their teaching to their learners’ learning (Mlachila & Moeletsi, 2019). More exposure to English outside of the classroom is needed for learners within a broader community (Ssentanda, et al., 2019). One could also bring more assistance into the classrooms, amongst others in the form of ‘talking partners’. Such partners may be valuable both inside and outside the classroom.

In conclusion, because many learners who took part in the study are English Language Learners, I did not expect them to have age-appropriate English language proficiency levels when compared to monolingual norms. Also, I am not assuming that the parents of these learners necessarily placed them in the relevant schools so that they could go “straight for English”; it is also possible that the parents would have preferred mother tongue education for their child but were attracted to the school because it had the resources and educational standards associated with a Quintile 5 school. Furthermore, the parents might have been comparing their child’s English language skills at the time of the study to the English language skills with which the child entered Grade R and might have given high ratings because they deemed the progress made to be indicative of their child being typical as regards second language learning of English. As stated above, the teachers might have given inflated ratings because there are in any case limited means of supporting learners who present with language learning problems. Alternatively, the teachers might have been comparing each child to a typical English Language Learner instead of to a monolingual child speaker of English. There are many considerations and my intention is not to criticise parents or teachers. Rather, I wanted to ascertain whether parent and teacher ratings correlate with objective test results, and the finding is that they do not. This could have serious implications for Grade R learners who are not referred for language screening or language testing, and who are assumed to be experiencing language difficulties simply because they are English Language Learners (whereas they might have a language pathology requiring specialised intervention), and who enter the English-medium Grade 1 class without the necessary English language proficiency needed to develop literacy skills in English.

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Appendices

Appendix A: GDE research approval letter



GAUTENG PROVINCE
Department: Education
REPUBLIC OF SOUTH AFRICA

8/4/1/2

GDE RESEARCH APPROVAL LETTER

Date:	18 April 2019
Validity of Research Approval:	04 February 2019 – 30 September 2019 2018/467
Name of Researcher:	Grove A. A
Address of Researcher:	10 Doon Drive Three Rivers Vereeniging 1929
Telephone Number:	016 423 4655 / 082 376 1505
Email address:	agneta@telkomsa.net
Research Topic:	The English Speech and Language Abilities of Grade R in an English Medium South African Classroom: Is there a correlation between objective measurement and teacher and parent perceptions
Type of qualification	Masters
Number and type of schools:	Four Primary Schools
District/s/HO	Sedibeng East

Re: Approval in Respect of Request to Conduct Research

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

Handwritten signature and date: 23/04/2019

1

Making education a societal priority

above study subject to the conditions listed below being met. Approval may be withdrawn should any of the conditions listed below be flouted:

1. The District/Head Office Senior Manager/s concerned must be presented with a copy of this letter that would indicate that the said researcher/s has/have been granted permission from the Gauteng Department of Education to conduct the research study.
2. The District/Head Office Senior Manager/s must be approached separately, and in writing, for permission to involve District/Head Office Officials in the project.
3. A copy of this letter must be forwarded to the school principal and the chairperson of the School Governing Body (SGB) that would indicate that the researcher/s have been granted permission from the Gauteng Department of Education to conduct the research study.
4. A letter / document that outline the purpose of the research and the anticipated outcomes of such research must be made available to the principals, SGBs and District/Head Office Senior Managers of the schools and districts/offices concerned, respectively.
5. The Researcher will make every effort obtain the goodwill and co-operation of all the GDE officials, principals, and chairpersons of the SGBs, teachers and learners involved. Persons who offer their co-operation will not receive additional remuneration from the Department while those that opt not to participate will not be penalised in any way.
6. Research may only be conducted after school hours so that the normal school programme is not interrupted. The Principal (if at a school) and/or Director (if at a district/head office) must be consulted about an appropriate time when the researcher/s may carry out their research at the sites that they manage.
7. Research may only commence from the second week of February and must be concluded before the beginning of the last quarter of the academic year. If incomplete, an amended Research Approval letter may be requested to conduct research in the following year.
8. Items 6 and 7 will not apply to any research effort being undertaken on behalf of the GDE. Such research will have been commissioned and be paid for by the Gauteng Department of Education.
9. It is the researcher's responsibility to obtain written parental consent of all learners that are expected to participate in the study.
10. The researcher is responsible for supplying and utilising his/her own research resources, such as stationery, photocopies, transport, faxes and telephones and should not depend on the goodwill of the institutions and/or the offices visited for supplying such resources.
11. The names of the GDE officials, schools, principals, parents, teachers and learners that participate in the study may not appear in the research report without the written consent of each of these individuals and/or organisations.
12. On completion of the study the researcher/s must supply the Director: Knowledge Management & Research with one Hard Cover bound and an electronic copy of the research.
13. The researcher may be expected to provide short presentations on the purpose, findings and recommendations of his/her research to both GDE officials and the schools concerned.
14. Should the researcher have been involved with research at a school and/or a district/head office level, the Director concerned must also be supplied with a brief summary of the purpose, findings and recommendations of the research study.

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

Kind regards



Mrs Faith Tshabalala
Acting Director: Education Research and Knowledge Management

DATE: 23/04/2019

Appendix B: Letter confirming ethical clearance obtained for study



NOTICE OF APPROVAL

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

15 August 2019

Project number: 9351

Project Title: The English speech and language abilities of Grade R learners in an English-medium South African classroom: Is there a correlation between objective measurements and teacher and parent perceptions?

Dear Mrs Agneta Grové

Co-investigators:

Your response to stipulations submitted on 22 July 2019 was reviewed and approved by the REC: Humanities.

Please note the following for your approved submission:

Ethics approval period:

Protocol approval date (Humanities)	Protocol expiration date (Humanities)
24 May 2019	23 May 2020

GENERAL COMMENTS:

Please take note of the General Investigator Responsibilities attached to this letter. You may commence with your research after complying fully with these guidelines.

If the researcher deviates in any way from the proposal approved by the REC: Humanities, the researcher must notify the REC of these changes.

Please use your SU project number (9351) on any documents or correspondence with the REC concerning your project.

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

FOR CONTINUATION OF PROJECTS AFTER REC APPROVAL PERIOD

Please note that a progress report should be submitted to the Research Ethics Committee: Humanities before the approval period has expired if a continuation of ethics approval is required. The Committee will then consider the continuation of the project for a further year (if necessary)

Included Documents:

Document Type	File Name	Date	Version
Research Protocol/Proposal	Proposal Final	10/03/2019	
Parental consent form	Consent to Participate in Research	10/03/2019	
Assent form	Child's Consent to Participate in Research	10/03/2019	
Informed Consent Form	Child's Consent to Participate in Research	10/03/2019	
Data collection tool	Teacher Grading	12/03/2019	1
Data collection tool	KLST-2	12/03/2019	2
Data collection tool	PPVT-4	12/03/2019	2
Data collection tool	Renfrew Action Picture test	12/03/2019	2
Data collection tool	Renfrew Bus Test	12/03/2019	2
Data collection tool	Renfrew Word Finding Scale	12/03/2019	2
Request for permission	agneta_008578	12/03/2019	1

Request for permission	GDE consent	20/03/2019	
Default	Southwood CV February 2019 - verkort vir Infonetica	01/04/2019	1
Proof of permission	Gauteng Educational Ethical Clearance	01/06/2019	1
Proof of permission	Gauteng Educational Ethical Clearance	01/06/2019	1
Parental consent form	Consent to Participate in Research M 2	03/06/2019	2
Informed Consent Form	Consent to Participate in Research M 2	05/06/2019	2
Data collection tool	Parental Grading	05/06/2019	1
Parental consent form	Teacher's consent	01/07/2019	1
Informed Consent Form	Teacher's consent	17/07/2019	1

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

Sincerely,

Clarissa Graham

REC Coordinator: Research Ethics Committee: Human Research (Humanities)

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

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

Investigator Responsibilities

Protection of Human Research Participants

Some of the general responsibilities investigators have when conducting research involving human participants are listed below:

1. Conducting the Research. You are responsible for making sure that the research is conducted according to the REC approved research protocol. You are also responsible for the actions of all your co-investigators and research staff involved with this research. You must also ensure that the research is conducted within the standards of your field of research.

2. Participant Enrollment. You may not recruit or enroll participants prior to the REC approval date or after the expiration date of REC approval. All recruitment materials for any form of media must be approved by the REC prior to their use.

3. Informed Consent. You are responsible for obtaining and documenting effective informed consent using **only** the REC-approved consent documents/process, and for ensuring that no human participants are involved in research prior to obtaining their informed consent. Please give all participants copies of the signed informed consent documents. Keep the originals in your secured research files for at least five (5) years.

4. Continuing Review. The REC must review and approve all REC-approved research proposals at intervals appropriate to the degree of risk but not less than once per year. There is **no grace period**. Prior to the date on which the REC approval of the research expires, it is **your responsibility to submit the progress report in a timely fashion to ensure a lapse in REC approval does not occur**. If REC approval of your research lapses, you must stop new participant enrollment, and contact the REC office immediately.

5. Amendments and Changes. If you wish to amend or change any aspect of your research (such as research design, interventions or procedures, participant population, informed consent document, instruments, surveys or recruiting material), you must submit the amendment to the REC for review using the current Amendment Form. You **may not initiate** any amendments or changes to your research without first obtaining written REC review and approval. The **only exception** is when it is necessary to eliminate apparent immediate hazards to participants and the REC should be immediately informed of this necessity.

6. Adverse or Unanticipated Events. Any serious adverse events, participant complaints, and all unanticipated problems that involve risks to participants or others, as well as any research related injuries, occurring at this institution or at other performance sites must be reported to Malene Fouche within **five (5) days** of discovery of the incident. You must also report any instances of serious or continuing problems, or non-compliance with the REC's requirements for protecting human research participants. The only exception to this policy is that the death of a research participant must be reported in accordance with the Stellenbosch University Research Ethics Committee Standard Operating Procedures. All reportable events should be submitted to the REC using the Serious Adverse Event Report Form.

7. Research Record Keeping. You must keep the following research related records, at a minimum, in a secure location for a minimum of five years: the REC approved research proposal and all amendments; all informed consent documents; recruiting materials; continuing review reports; adverse or unanticipated events; and all correspondence from the REC

8. Provision of Counselling or emergency support. When a dedicated counsellor or psychologist provides support to a participant without prior REC review and approval, to the extent permitted by law, such activities will not be recognised as research nor the data used in support of research. Such cases should be indicated in the progress report or final report.

9. Final reports. When you have completed (no further participant enrollment, interactions or interventions) or stopped work on your research, you must submit a Final Report to the REC.

10. On-Site Evaluations, Inspections, or Audits. If you are notified that your research will be reviewed or audited by the sponsor or any other external agency or any internal group, you must inform the REC immediately of the impending audit/evaluation.

Appendix C: Letter of informed consent to parent



Agneta A Grové

BLog (Pret) PR NO 8203091

SPRAAKTERAPEUT & OUDIOLOOG-SPEECH THERAPIST & AUDIOLOGIST

DOONRYLAAN 10, DRIE RIVIERE, 1929.
TEL 016-4234655. FAKS/FAX 016-4234892
10 DOON DRIVE, THREE RIVERS, 1929
E-POS/E-MAIL: agneta@telkomsa.net

March 2019

Dear Parent/Guardian

The speech and language abilities of Grade R learners in an English-medium South African classroom: Is there a correlation between objective measurements and teacher and parent perceptions?

Your child is being asked to participate in a research study on speech and language abilities of young children, conducted by me, Agneta A Grové, and supervised by Prof Frenette Southwood (PhD, Radboud University, Nijmegen) from the Department of General Linguistics, Stellenbosch University. Your child was selected as a possible participant in this study as your child is presently in Grade R and is receiving instruction through the medium of English.

- **Purpose of the study**

The purpose of this study is to learn more about the speech and language abilities of Grade R learners and how to diagnose problems in these fields earlier so as to enhance school readiness.

- **Procedure**

If you grant permission for me to invite your child to your child's participate in this study and your child accepts the invitation, the following will happen:

- 1 You will complete a basic background information form. (You will be welcome to leave questions open should you wish not to answer them.)
- 2 Your child's speech and language abilities will be assessed by means of five standardised tests namely: Peabody Picture Vocabulary test (PPVT), Renfrew

Word finding (RWF), Renfrew Action Words (RAW), Renfrew Bus Story (RBS) and Kindergarten Language and School Readiness test (KLST). The test procedure will last approximately 45 minutes in total and your child will be allowed to rest in between should that be necessary.

- 3 The data collected from your child will then be part of a data pool and will be used to investigate possible correlations between the child's test results, on the one hand, and the teacher's perceptions and your perceptions of the child's language and speech abilities, on the other hand. Parts of this study may be presented at conferences or published in scientific journals or other academic publications. You, your child, and the child's school will however remain anonymous throughout.

- **Potential Risks and Discomforts**

There are no identifiable risks or discomforts associated with participation in this study.

- **Potential benefits to subjects, and or society**

There is no direct benefit to your child but it will greatly assist the process of earlier identification of and referrals for speech and language problems. The results of the language and speech testing will be made available to you in the form of a written report, free of charge.

- **Payment for participation**

No payment is being offered for you or your child for participating in this study. Participation will also not cost you or your child anything.

- **Confidentiality**

Any information that is obtained with study that can be identified with you, your child or the school will remain confidential and will only be disclosed with your permission or as required by the law. Confidentiality will be maintained by means of limited access to your child's speech and language scores (by only myself and the project coordinator) and safe storage of versions of the response records and other raw data.

- **Participation and Withdrawal**

You can choose whether or not I may invite your child to take part in this study. If you consent to your child's participation, you or your child may withdraw at any time without any negative consequences. You may also refuse to answer any questions you do not want to answer and still remain in the study. The test administrator (myself) may withdraw your child from this study if circumstances arise which warrant doing so, e.g. if your child does not enjoy the testing.

- **Identification of Investigators**

If you have any questions or concerns about the research, you can contact me directly on 016-4234655 or on agneta@telkomsa.net or my supervisor Dr Frenette Southwood at 0218082010 or on fs@sun.ac.za

- **Rights of Research Subjects**

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have any questions regarding your right as a research subject, please contact Ms Maléne Fouche (mfouche@sun.ac.za; 0218084622) at the University's Division for Research Development.

SIGNATURE OF RESEARCH SUBJECT OR LEGAL REPRESENTATIVE

The information above was given to me.....
(name and surname of parent/guardian of the child) by Agneta A Grové in English and I am in command of this language or it was satisfactorily translated to me. I was given the opportunity to ask questions and these questions were answered to my satisfaction. By signing this form, I consent to my child being invited to take part in this study (and thus to undergo Speech and Language assessment by Agneta A Grové, Speech Therapist and Audiologist) and to my child's teacher providing Agneta A Grové with my child's first-term report of 2019.

-----	-----
Name of parent/guardian	Name of the child to participate
-----	-----
Signature of parent/guardian	Date

SIGNATURE OF INVESTIGATOR

I declare that I explained the information given in this document to
..... (name of the parent/guardian of the child participant). He /she was encouraged and given ample time to ask any questions. The information sharing took place in English and no translator was present.

-----	-----
Signature of the Investigator	Date

Appendix D: Letter of informed assent to learner



Agneta A Grové

BLog (Pret) PR NO 8203091
SPRAAKTERAPEUT & OUDIOLOOG-SPEECH THERAPIST & AUDIOLOGIST

DOONRYLAAN 10, DRIE RIVIERE, 1929.
TEL 016-4234655. FAKS/FAX 016-4234892
10 DOON DRIVE, THREE RIVERS, 1929
E-POS/E-MAIL: agneta@telkomsa.net

March 2019

Title of the Research Project:

The speech and language abilities of Grade R learners in an English-medium South African classroom: Is there a correlation between objective measurements and teacher and parent perceptions?

Researcher's names:

Agneta A Grové (Speech and Language Therapist) and Prof Frenette Southwood

Contact Numbers:

016-4234655 (Agneta) or 0218082010 (Frenette)

What is Research?

Research is something we do to learn new and more things about the way things and people work. We use research projects to help us to find out more about children, adults and teenagers and the things that affect them and their lives, their schools, their families and their health. We do this to try and make the world a better place.

What is this research project about?

In this project we try to see what each Grade R child's speech and language abilities are and help them to be more ready for formal schooling-Grade 1.

Why have I been invited to participate?

We want to test the speech and language of children who are taught in English on Grade R level and therefore you have been chosen.

Who is doing the research?

Agneta A Grové a speech therapist and Audiologist will do all the tests with you and show you all the pictures. She will discuss all these results with Prof Frenette Southwood from Stellenbosch University. Then we will share the results with your parent.

What will happen to me in this study?

Agneta will show you pictures and ask you to do a few things such as pointing, naming and telling stories.

Can anything bad happen to me?

No

Will anyone know I am in the study?

Yes, your parent(s) and your teacher will know. Agneta will discuss your answers and results with Frenette but she will use another name when she speaks about you to Frenette so that Frenette will never know who you really are.

If I have any questions about this study who can I ask?

You can ask your parents, your teacher or Agneta Grové. If they cannot answer your questions, you can contact Prof Frenette Southwood on 021-8082101 or e-mail (fs@sun.ac.za). You can ask your parent to help you with this.;

What if I do not want to do this?

It is your choice if you want to do it or not. If you do not want to do it, just say so; you don't have to explain why you don't want to do this. And if you say YES now and later change your mind, you can just tell your parents, or your teacher or Agneta. No one will be angry with you.

Do you understand this research and are you willing to take part in it?

Yes
No

Has the researcher answered all your questions?

Yes
No

Do you understand that you can STOP being in this study at any time?

Yes
No

Signature of the child

Date

Appendix E: Letter of informed consent to the teacher



Agneta A Grové

BLog (Pret) PR NO 8203091

SPRAAKTERAPEUT & OUDIOLOOG-SPEECH THERAPIST & AUDIOLOGIST

DOONRYLAAN 10, DRIE RIVIERE, 1929.
TEL 016-4234655. FAKS/FAX 016-4234892
10 DOON DRIVE, THREE RIVERS, 1929
E-POS/E-MAIL: agneta@telkomsa.net

March 2019

Dear Teacher,

The speech and language abilities of Grade R learners in an English-medium South African classroom: Is there a correlation between objective measurements and teacher and parent perceptions?

The children in your class are being asked to participate in a research study on speech and language abilities of young children, conducted by me, Agneta A Grové, and supervised by Prof Frenette Southwood (PhD, Radboud University, Nijmegen) from the Department of General Linguistics, Stellenbosch University. Your class was selected as a possible participant in this study as they are presently in Grade R and receiving instruction through the medium of English.

- **Purpose of the study**

The purpose of this study is to learn more about the speech and language abilities of Grade R learners and how to diagnose problems in these fields earlier so as to enhance school readiness.

- **Procedure**

If you grant permission for me to invite the children to participate in this study and they accept the invitation, the following will happen:

- 1 You will complete a basic background information form and perception of the child's language abilities. (You will be welcome to leave questions open should you wish not to answer them.)

- 2 The children's speech and language abilities will be assessed by means of five standardised tests namely: Peabody Picture Vocabulary test (PPVT), Renfrew Word finding (RWF), Renfrew Action Words (RAW), Renfrew Bus Story (RBS) and Kindergarten Language and School Readiness test (KLST). The test procedure will last approximately 45 minutes in total and the children will be allowed to rest in between should that be necessary.
 - 3 The data collected from the children will then be part of a data pool and will be used to investigate possible correlations between the child's test results, on the one hand, and the teacher's perceptions and parent's perceptions of the child's language and speech abilities, on the other hand. Parts of this study may be presented at conferences or published in scientific journals or other academic publications. You, the children and the school, will however remain anonymous throughout.
- **Potential Risks and Discomforts**

There are no identifiable risks or discomforts associated with participation in this study.
 - **Potential benefits to subjects, and or society**

There is no direct benefit to the children, but it will greatly assist the process of earlier identification of and referrals for speech and language problems. The results of the language and speech testing will be made available to the parents in the form of a written report, free of charge.
 - **Payment for participation**

No payment is being offered for participating in this study. Participation will also not cost anything.
 - **Confidentiality**

Any information that is obtained with study that can be identified with you, the children or the school will remain confidential and will only be disclosed with your permission or as required by the law. Confidentiality will be maintained by means of limited access to the children's speech and language scores (by only myself and the project coordinator) and safe storage of versions of the response records and other raw data.
 - **Participation and Withdrawal**

You can choose whether or not I may invite the children to take part in this study. If you consent to your class' participation, you or the children or their parents may withdraw at any time without any negative consequences. You may also refuse to answer any questions you do not want to answer and still remain in the study. The test administrator may withdraw any child from this study if circumstances arise which warrant doing so, e.g. if a child does not enjoy the testing.
 - **Identification of Investigators**

If you have any questions or concerns about the research, you can contact me directly on 016-4234655 or on agneta@telkomsa.net or my supervisor Dr Frenette Southwood at 0218082010 or on fs@sun.ac.za
 - **Rights of Research Subjects**

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have any questions regarding your right as a

research subject, please contact Ms Maléne Fouche (mfouche@sun.ac.za; 0218084622) at the University's Division for Research Development.

SIGNATURE OF RESEARCH SUBJECT OR LEGAL REPRESENTATIVE

The information above was given to me.....
(name and surname of teacher) by Agneta A Grové in English and I am in command of this language or it was satisfactorily translated to me. I was given the opportunity to ask questions and these questions were answered to my satisfaction. By signing this form, I consent to the children in my class being invited to take part in this study (and thus to undergo Speech and Language assessment by Agneta A Grové, Speech Therapist and Audiologist).

-----	-----
Name of teacher	Name of Gr R class to participate
-----	-----
Signature of teacher	Date

SIGNATURE OF INVESTIGATOR

I declare that I explained the information given in this document to
..... (name of the teacher). He /she was encouraged and given ample time to ask any questions. The information sharing took place in English and no translator was present.

-----	-----
Signature of the Investigator	Date

Appendix F: Rating of language skills of learner as completed by the parent



Agneta A Grové

BLog (Pret) PR NO 8203091

SPRAAKTERAPEUT & OUDIOLOG-SPEECH THERAPIST & AUDIOLOGIST

DOONRYLAAN 10, DRIE RIVIERE, 1929.

TEL 016-4234655. FAKS/FAX 016-4234892

10 DOON DRIVE, THREE RIVERS, 1929

E-POS/E-MAIL: agneta@telkomsa.net

March 2019

Dear Parent/ Guardian

Your opinions on your child's speech and language is very important. Please grade your child: -----'s

English abilities on the following aspects on a four point scale where:

- 4 high above average
- 3 slightly above average
- 2 slightly below average
- 1 seriously below average.
- 0 I don't know

Understanding of Vocabulary	4	3	2	1	I don't know
English					

VOCABULARY here refers to the words that a child knows (i.e. can understand) for objects, actions, emotions, concepts, etc. (Does the child know enough words for his/her age?)

Usage of Vocabulary	4	3	2	1	I don't know
English					

VOCABULARY here refers to the words that a child can use to speak about objects, actions, emotions, concepts, etc. (Can the child use enough words for his/her age?)

Amount of information when talking	4	3	2	1	I don't know
English					

AMOUNT OF INFORMATION refers to the completeness of what the child says when he or she is talking. (Is the child's sentences long enough for his/her age? Does the child give enough information so that others can understand what he/she is saying?)

Grammatical usage of language	4	3	2	1	I don't know
English					

GRAMMATICAL USAGE refers here to that way in which the child forms sentences and phrases. (Does the child use the correct sentence structure when speaking English?)

Story telling	4	3	2	1	I don't know
English					

STORYTELLING here refers to the telling or re-telling of any story, either one that the child has made up or one that the child was told or read before. It can also refer to the child telling something that he/she saw happening. (Does the child tell stories about what he has seen/heard/experience and/or does the child retell stories that was told/read to him/her, and are these stories appropriate for his/her age?)

General school readiness	4	3	2	1	I don't know
English					

SCHOOL READINESS here refers to the child's readiness to start learning to read and write in Grade 1. (Do you think the child will be ready to start learning to read and write English at the beginning of next year?)

Regards
Agneta A Grové

Appendix G: Rating of language skills as completed by the teacher



Agneta A Grové

BLog (Pret) PR NO 8203091

SPRAAKTERAPEUT & AUDIOLOOG-SPEECH THERAPIST & AUDIOLOGIST

DOONRYLAAN 10, DRIE RIVIERE, 1929.
 TEL 016-4234655. FAKS/FAX 016-4234892
 10 DOON DRIVE, THREE RIVERS, 1929
 E-POS/E-MAIL: agneta@telkomsa.net
 March 2019

Dear Teacher

Your opinions on a child's speech and language abilities in your class is very important. Please grade the child^s English abilities on the following aspects on a four point scale where:

- 4 = high above average
- 3 = slightly above average
- 2 = slightly below average
- 1 = seriously below average.
- 0 =I don't know

Understanding of Vocabulary	4	3	2	1	I don't know
English					

Usage of Vocabulary	4	3	2	1	I don't know
English					

Amount of	4	3	2	1	I don't know
-----------	---	---	---	---	--------------

information provided when talking					
English					

Grammatical usage of the language	4	3	2	1	I don't know
English					

Story telling abilities	4	3	2	1	I don't know
English					

General school readiness	4	3	2	1	I don't know
English					

Regards
Agneta A Grové