The relationship between Grade 5 learners’ reading literacy achievement and parental reading attitudes and behaviour

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<tbody>
<tr>
<td>ANA</td>
<td>Annual National Assessments</td>
</tr>
<tr>
<td>APA</td>
<td>American Psychological Association</td>
</tr>
<tr>
<td>CEA</td>
<td>Centre for Evaluation and Assessment</td>
</tr>
<tr>
<td>DoE</td>
<td>Department of Education</td>
</tr>
<tr>
<td>GHS</td>
<td>General Household Survey</td>
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<tr>
<td>IEA</td>
<td>International Association for the Evaluation of Educational Achievement</td>
</tr>
<tr>
<td>IDB</td>
<td>International Database Analyser</td>
</tr>
<tr>
<td>LoLT</td>
<td>Language of Learning and Teaching</td>
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<tr>
<td>NGO</td>
<td>Non-Government Organisation</td>
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<tr>
<td>PIRLS</td>
<td>Progress in International Reading Literacy study</td>
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<tr>
<td>SACMEQ</td>
<td>Southern and Eastern Africa Consortium in Monitoring Educational Quality</td>
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<tr>
<td>SPSS</td>
<td>Statistical Package for the Social Sciences</td>
</tr>
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<td>StatsSA</td>
<td>Statistics South Africa</td>
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<tr>
<td>TIMSS</td>
<td>Trends in International Mathematics and Science Study</td>
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Abstract

This study aims to establish the relationship between reading literacy in the primary school and parental attitudes and behaviour to reading. Reading literacy is another dimension of literacy (Dubin & Kuhlman, 1992), notably the ability to understand and make use of written language (Mullis, Martin, Kennedy, Trong & Sainsbury, 2009). Despite various educational improvement initiatives undertaken by the South African Education system (ANAs, SACMEQ, TIMMS, PIRLS) as a means of creating systems to improve standards of education (Education Policy Act 2015 of 1998), learner achievement in the primary school remains low. This study makes use of selected variables from the PIRLS 2011 parent questionnaire to measure the extent of the relationship between learner reading achievement in Grade 5 and home level factors such as learning environment, parental behaviours in reading and parental attitudes towards reading. It adopts a secondary analysis design and makes use of quantitative approaches (Creswell, 2003). The Developed model of Home Learning Environment, Parental Behaviours and Parental Attitudes to Reading and Reading Literacy Achievement was adapted from the model of attitudes, behaviours and reading as developed by Abu-Rabia and Yaari (2012). This study was able to establish that the home learning environment and parental behaviours to reading had negative association with reading literacy, meaning that in their absence reading literacy would decrease. It established that parental attitudes to reading had positive association with reading literacy, meaning that in the presence of positive parental attitudes, reading literacy would increase. This highlights the importance of parental involvement in learner reading development.

Keywords:

Home learning environment, multiple regression analysis, parental attitudes, parental behaviours, PIRLS 2011, reading literacy, secondary analysis
Acknowledgements

This journey has truly been one of the most difficult, I would like to thank the following persons for their positive contributions:

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- My Supervisor, Dr Surette van Staden, thank you for understanding me, it is not every day that happens.
- To my organisation, particularly my line managers, thank you for the support during my studies.

I have always wondered why things happen, now I realise that our lives are not our own and each of our books have already been written, all that we need to do is read. The Lord placed me here for a reason and I hope I will leave having known my purpose. Thank you Lord for life!
CHAPTER 1
INTRODUCTION AND BACKGROUND

1.1 INTRODUCTION

This study seeks to investigate the association of parental attitudes and behaviours regarding reading and learner reading literacy achievement in Grade 5. The study utilises South African data from the Progress in International Reading Literacy Study (PIRLS) 2011, an international comparative study conducted every four years, in which the country first participated in 2006 and secondly in the cycle of 2011. PIRLS aims to assess reading literacy of learners in Grade 4.

According to Abu-Rabia and Yaari (2012), ‘the literacy behaviours of parents affect their children directly and indirectly’ (taken from Moon & Wells, 1979), whilst several studies indicate increased academic achievement with learners having involved parents (Herrell, 2011; Clark, 2007; Flouri & Buchanan, 2004).

This study focuses on how parents’ attitudes, behaviours and the home learning environment may contribute to learner reading achievement in Grade 5. Mullis, Martin, Kennedy, Trong and Sainsbury (2009) define ‘reading literacy’ as ‘the ability to understand and use those written language forms required by society and/or valued by the individual’. It is further stated that novice readers can make meaning from a wide range of written information.

This study utilises PIRLS 2011 data as a secondary analysis that adopts a quantitative approach in which ‘post-positivist assumptions of developing knowledge are employed within strategies of inquiry that yield statistical data’ (Creswell, 2003). Creswell (2003) defines ‘post-positivist research’ in accordance with Phillips and Burbules (2000), as the extension of thought after positivism which aims to challenge traditional notions of the truth to knowledge.

PIRLS 2011 data collection strategy makes use of four questionnaires, administered to learners, teachers, schools and, parents. This study focuses on the data from the
parent questionnaires as well as the achievement data from the learner reading literacy tests.

In Chapter 1, Section 1.2 provides the context; Section 1.3 introduces the problem statement and provides a rationale for the study; Section 1.4 poses the research question, then Section 5.1 describes the research methodology that addresses the study. Section 1.6 outlines the structure of the study.

1.2 CONTEXT OF THE STUDY

There are numerous educational initiatives aimed at improving the quality of primary and secondary education in South Africa, a system that aims to ‘create systems to improve standards of education and monitoring, and evaluate their implementation’ (Education Policy Act 2015 of 1998). It should be noted that in the South African context, in addition to low levels of performance, the country is faced with issues such as absent parents, illiterate parents, poverty, HIV/AIDS and child-headed households.

At a national level, the Department of Education implemented Annual National Assessment (ANAs) in 2011, consisting of standardised tests for learners in Grades 1 to 6 and 9, to identify possible learning deficits in the lower level grades and find solutions to correct them (Spaull, 2013).

On an international level, South Africa has participated in the Trends in International Mathematics and Science study (TIMSS), which is a large scale comparative study that tests the mathematical and scientific knowledge of learners in Grade 8 (Mullis, Martin, Foy & Arora, 2012). The country has also participated in the Southern and East African Consortium for Monitoring Educational Quality study (SACMEQ), which is a cross-national study of Southern and Eastern African countries that tests literacy and numeracy of learners in Grade 6 (Spaull, 2013).

Although there are a number of initiatives, such as the; Monitoring Learning Achievement (MIL) project as part of UNESCO/UNCEF, Trends in International Mathematics and Science study (TIMSS), District Developmental Support Programme
(DDSP), Progress in International Reading Literacy Study (PIRLS), Southern and East African Consortium for Monitoring Educational Quality study (SACMEQ) taken to improve the quality of South African education, there remains concern as to the effectiveness of these initiatives and whether the educational needs of learners are met (Spaull, 2013; Fleisch, 2008).

1.3 PROBLEM STATEMENT AND RATIONALE

This study aims to investigate the role that parents’ attitudes and behaviours to reading may have on improving or impairing learner reading literacy achievement. The reading literacy achieved in Grade 5 as acquired from the PIRLS 2011 test scores will be used to establish the association of parents’ attitudes and behaviours to reading and reading literacy achievement.

Reading literacy development is a continuous process and as a child progresses through each developmental stage (i.e., grade in school), he or she should improve in the ability to read. Wilson and Katz (2009) state that children begin to vocalise and recognise pictures between 16 and 18 months, and by nine years of age are developing as independent readers. Abu-Rabia and Yaari (2012) state that verbal interaction between parent and child is crucial during literacy development, as positive feedback encourages and motivates the child. Various studies have found that parents’ attitudes affect children’s attitudes towards learning (Abu-Rabia & Yaari, 2012), with Carroll (2013) referring to early literacy exposure at home as important for reading development, even before a child begins school. It is continuous once a child starts school, and he describes the ‘home environment as an important setting for the acquisition of literacy knowledge’ in which children are exposed to literacy activities that involve joint reading and writing and the benefit of family members’ teaching strategies.

The PIRLS, Trends in International Mathematics and Science Study (TIMSS) and Southern and Eastern African Consortium for Monitoring Educational Quality (SACMEQ) results have shown poor performance of South Africa compared to other countries, while the ANAs and the National School Effectiveness study have indicated
discrepancies between policy and practice. Naidoo, Reddy and Dorasamy (2014) discuss the contextual factors that may have an association with the lack of advancement in reading. These are stated as socio-economic conditions; parental commitment; parents’ educational achievement; and the language and culture of the community. Carroll (2013) emphasises the importance of parental involvement in the early literacy development age and describes it as having a direct relationship on ‘school success’. Parental commitment involves the amount of effort put into the creation of reading opportunities for children at home and helps in fostering positive attitudes and behaviours towards reading and learning.

1.4 RESEARCH QUESTION

Against the background set out above, the research question is posed as follows:

To what extent are parents’ attitudes and behaviours regarding reading associated with learner reading literacy achievement in Grade 5?

Parents’ attitudes and behaviours regarding reading are measured with data collected from the parent questionnaires. The expected effect is converted to percentages using the SPSS-linked International Database (IDB) Analyzer software (Mullis, Martin, Kennedy, Trong & Sainsbury, 2011).

The following sub-questions are addressed in the study:

1. How does parental involvement affect learner reading achievement based on the evidence of the PIRLS 2011?
2. What are the implications of the PIRLS 2011 results for the South African education system?

1.5 RESEARCH METHODOLOGY

This study aims to establish the relationship between parents’ attitudes and behaviours regarding reading and reading literacy achievement of learners in Grade 5. The study is designed as a secondary analysis and adopts a quantitative approach.
Hinds, Vogel and Clarke-Steffen (1997) define ‘secondary analysis’ as the use of existing data, collected for the purposes of a prior study, in order to pursue a research interest which is distinct from that of the original work. With reference to this study, PIRLS 2011 survey data served as evidence of what was to be investigated.

The current study made use of descriptive and inferential statistics, with Multiple Regression Analysis technique used to analyse the data set. This allowed for the use of various independent variables to predict the outcome of a single dependent variable (Abdel-Salam, 2009). Figure 1.1 (below) provides a schematic illustration of the three identified home factors as part of this study:

![Figure 1.1: Home Level Factors](image)

Figure 1.1 shows the three home factors that may be associated with learner reading literacy achievement. Details of the specific questions from the parent questionnaire associated with each home factor are in Chapter 4 and 5. The next sub-section discusses the structure of this dissertation.

1.6 STRUCTURE OF THE DISSERTATION

Chapter 2 provides a description of the PIRLS international comparative study. The results of South Africa as a participative country in PIRLS 2006 and 2011 are given and explained. This chapter also refers to PIRLS 2011 research design and methods.
Chapter 3 provides details of the role of literacy in society. Various definitions of literacy are explored, a particular one being espoused for PIRLS 2011. The home environment and parental roles and responsibilities in reading are explored as the home is the first point of contact for learning experiences. The conceptual framework that underpins this study is also discussed in this chapter.

Chapter 4 provides details of the quantitative approach of this study as a secondary analysis that makes use of existing data (Hinds, Vogel & Clarke-Steffen, 1997). The PIRLS 2011 employed a cross-sectional survey and trend design to allow for comparison. A multi-method approach was adopted to collect the data for PIRLS 2011. This chapter also provides a clear description of the re-coding process of some items from the parent questionnaire and how scales for each home factor were developed.

Chapter 5 details the findings of this study. The first part discusses the results of PIRLS 2011, thereafter it refers to the descriptive results of selected variables from the parent questionnaire. Descriptive evidence indicates the number of respondents who responded to item questions and their responses. An SPSS-linked IBD Analyzer converts the respondents’ expected effect to percentages, concluding by referring to reliability analysis results and providing a response for each research question.

Chapter 6 provides a summary of this study, discussing the findings and referring to each research question. The dissertation is concluded with recommendations made relating to parental attitudes and behaviours, and reading literacy.
CHAPTER 2
THE PROGRESS IN INTERNATIONAL READING LITERACY STUDY (PIRLS) 2011

2.1 INTRODUCTION

PIRLS is an international comparative trend study conducted every four years which aims to assess the reading literacy of learners in Grade 4, with the support of the International Association for the Evaluation of Educational Achievement (IEA) (Howie, van Staden, Tshele, Dowse & Zimmerman, 2012), an independent international cooperative of national research institutions and governmental research agencies (International Association for the Evaluation of Educational Achievement, 2016).

The following section explains how PIRLS 2011 was conducted in South Africa by referring to the conceptual framework of the study in Section 2.2, providing a description of the research design and methods in Section 2.3 and a summary of South African learners’ performance in PIRLS 2006 and 2011 in Section 2.4. Lastly, Section 2.5 provides a summary of the chapter.

2.2 PIRLS 2011 ASSESSMENT FRAMEWORK

The PIRLS 2011 Assessment Framework is illustrated below, depicting the various contexts that contribute to the development of learner reading literacy (Howie et al., 2012):
Figure 2.1: Conceptual Framework for the PIRLS 2011 (from Mullis et al., 2009)

Figure 2.1 shows that National and Community contexts contribute to the development of reading literacy in the home and classroom contexts. The home, classroom and school have a mutual relationship, in that each context contributes and receives from the other. They also relate to instruction and experiences, which in turn contribute to
learners’ reading achievement, behaviour and attitudes. The next section discusses the research design and methods of PIRLS 2011.

2.3 PIRLS 2011 RESEARCH DESIGN AND METHODS

PIRLS 2011 was a survey and trend study, allowing for comparison with previous PIRLS studies (Howie et al., 2012). As South Africa had only previously participated in PIRLS in 2006, the 2011 results could only be compared to those of 2006. The next sub-sections discuss the sampling procedure followed for PIRLS, the assessment instruments used as part of the study, the data collection and monitoring procedures and the quality control measures taken during the study.

2.3.1 Sample

PIRLS 2011 employed a cross-sectional survey and trend design to allow for comparison with the previous comparative study (PIRLS, 2006) and participative countries. The study required ‘that the target grade ought to be the grade that represents four years of schooling’ (Howie et al., 2012).

The sample consisted of 100 South African schools, with 92 visited for PIRLS 2011. Of the 92 schools, 3,515 learners were tested. Selection of the sample was based on three stage stratified cluster sampling (Joncas & Foy, 2010), in which the first stage constituted selection of an individual school based on proportion to size. The second stage was a random selection of classrooms and the learners within them as the third stage.

The schools that were part of the sample selection were those that used English or Afrikaans or both as a medium of instruction up to Grade 5, meaning that learners had to have been taught in English or Afrikaans or both from Reception (Grade R). Intact classes were tested and no sub-sampling of learners within classes took place.
2.3.2 Instruments

A multi-method approach was adopted to collect the data for PIRLS 2011. The approach was appropriate for the study as PIRLS 2011 consisted of achievement testing of Grade 5 learners and questionnaires to learners, parents, teachers and schools. For the purpose of this study, the interest was in the learner achievement data and parent questionnaire data.

The PIRLS 2011 assessment instruments were administered in the Language of Learning and Teaching (LoLT) in which the learners were taught from Grades 1 to 3 (formal education) (Howie et al., 2012). The PIRLS assessments measured two purposes for reading, namely, reading for literary experience and reading to acquire and use information (Mullis, Martin, Foy & Drucker, 2012). Each of these two purposes for reading contained two processes of comprehension, which Mullis et al. (2012) further explain as:

- Focus of and retrieval of explicitly stated information
- Ability to make straightforward inferences
- Interpretation and integrating of ideas and information and
- Examination and evaluation of content, language and textual elements.

2.3.2.1 Achievement Booklets

The PIRLS 2011 assessment instruments were developed in English by international committees, working in collaboration with the International Study Center (ISC) and the National Research Coordinators (NRCs) of participating countries (Howie et al., 2012).

PIRLS 2011 adopted a matrix assessment design in which reading passages and questions were segregated. Five literary passages (L1-L5) and five informational passages (I1-I5) were constructed (Table 2.1). A total of 13 different assessment booklets from ten reading passages were designed (Howie et al., 2012).
Table 2.1: PIRLS 2011 Matrix-Sampling Blocks (Howie et al. 2012)

<table>
<thead>
<tr>
<th>Purpose for reading</th>
<th>Block</th>
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<tbody>
<tr>
<td>Literacy Experience</td>
<td>L1</td>
</tr>
<tr>
<td>L2</td>
<td>L3</td>
</tr>
<tr>
<td>L4</td>
<td>L5</td>
</tr>
<tr>
<td>Acquire and Use Information</td>
<td>l1</td>
</tr>
<tr>
<td>l2</td>
<td>l3</td>
</tr>
<tr>
<td>l4</td>
<td>l5</td>
</tr>
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</table>

The 13 different assessment booklets each consisted of 40-minute passages and questions, with a break opportunity between.

2.3.2.2 Question type and Scoring procedures

PIRLS 2011 used multiple choice and constructed response question types. The former consisted of four possible options with only one correct answer and learners asked to circle the correct one. One point was awarded for each correct answer. The latter consisted of various questions intended to assess any of the four comprehension processes. Khumalo (2014) makes reference to Mullis et al.’s (2006) explanation on the average score points allocated to constructed question types, to which at least 15 score points were allocated. The questions ranged from 1-point multiple choice questions to 2-point short answer questions and a more complex 3-point extended response item.

2.3.2.3 Behaviours and Attitudes: Questionnaires

Howie et al. (2012) explain that the background questionnaires were intended to collect data related to the behaviour and attitudes of learners, parents, teachers and school principals towards reading, education and teaching. For purposes of the current study only selected data from the parent questionnaire was utilised. Howie et al. (2012) further explain that the parent questionnaires aimed to determine parents’ behaviour and attitudes to reading.
2.3.2.3.1 Parent questionnaire (Learning to read survey)

Learners were given the parent questionnaires to take home and give to their parents or guardians for completion. The learners were asked to return the completed questionnaires the next day and submit to their teachers. The parent questionnaires related to preparations for primary schooling, which included attendance at preschool and literacy-and-numeracy-centred activities in the home before enrolment in primary school. The literacy- and numeracy-centred activities included reading books, singing songs or playing with number toys. Parents were also required to disclose information relating to their highest obtained qualification and employment status.

2.3.3. Data Collection and Monitoring

PIRLS 2011 data collection took place in October and November 2011, a process that was outsourced with a marketing research company being appointed to conduct fieldwork. Training was provided to fieldworkers to ensure standardised procedure and compliance with guidelines as provided by the IEA (Howie et al., 2012).

The actual administration of tests and questionnaires was conducted in one day with learners required to complete the reading achievement tests in two 40-minute sessions, with a break between. Thereafter, 30 minutes were allocated to the learner questionnaire. The parent questionnaires were given to learners to hand on to their parents and were collected from school the next day (Howie et al., 2012).

2.3.4 Data Capturing and Verification

PIRLS 2011 assessment instruments and background questionnaires were captured by an external company. The data was provided in ASCII format, and Statistics Analysis System (SAS) software was utilised within accordance with the IEA requirements. Also, an in-house designed program called WinDEM was made available to all adult participants to capture and verify data (Howie et al., 2012).
2.3.5 Quality Assurance

As part of Quality Assurance, monitoring processes were developed to ensure consistency in fieldwork. They included unannounced school visits by members of the CEA and the appointment of an International Quality Control Monitor (Howie et al., 2012).

2.4 South African Learner Performance in PIRLS 2006 and 2011

South Africa first participated in PIRLS in 2006, in which cycle both Grades 4 and 5 learners were assessed, partly because Grade 4 is seen as a transitional stage from learning to reading to reading to learn (Howie et al., 2012). PIRLS 2006 results indicated that South Africa had achieved the lowest score of the 45 participate education systems. Grade 4 learners achieved a score of 253 out of the international centre point of 500, while Grade 5 learners achieved a score of 302 out of the international centre point of 500. Only 22% of Grade 5 learners managed to achieve the Low International Benchmark of 400, which is an internationally set standard for satisfactory performance at the Grade 4 level. More so, a mere 2 percent achieved the Advanced International Benchmark which is an internationally set standard for exceptional performance in Grade 4.

In 2011, South Africa participated in the second cycle of PIRLS, in which Grade 4 learners were assessed on prePIRLS, a less difficult assessment aimed at ‘providing countries that had underperformed in 2006 an opportunity to obtain more accurate estimates of achievement’ (Howie et al., 2012). Grade 4 learners were assessed in 11 official languages in prePIRLS. Grade 5 learners were assessed using PIRLS 2011 assessment instruments in English and Afrikaans, which were the best performing languages in PIRLS 2006. The Grade 5 learners achieved below the International centre point of 500 at only 421. It has to be kept in mind that although 421 score points do not seem far below the international centre point of 500, South African Grade 5 learners were compared to Grade 4 learners internationally. This concludes the consistently of low performance of South African Grade 5 learners across both cycles of PIRLS.
2.5 SUMMARY

This chapter has provided a brief history of the IEA and PIRLS, its purpose and South Africa’s participation in the comparative study. The conceptual framework underpinning PIRLS 2011 was also discussed. It concluded by referring to the research design and methods of PIRLS 2011 and the achievement results of South African Grade 5 learners in PIRLS 2006 and 2011.
CHAPTER 3

LITERATURE REVIEW

3.1 INTRODUCTION

This study aims to investigate the relationship between Grade 5 learners’ reading literacy achievement and parental reading attitudes and behaviours, using the PIRLS 2011 South African data. It utilises a body of literature on the home context that may be associated with the level of learners’ reading achievement, made up of Home Learning Environment, Parents’ Attitudes to Reading, and Parents’ Behaviours to Reading (Howie et al., 2012; Obeta, 2014). Obeta (2014) refers to home environmental factors as all domestic variables that affect an individual’s existence, behaviour and academic performance. This study measures the possible statistical relationship strength between the home context and Grade 5 learner reading achievement in South Africa.

This chapter aims to explore literature on the home context. Specifically, Section 3.2 provides definitions of literacy, Section 3.3 explores the home context as a factor associated with reading literacy achievement, and Section 3.4 discusses each home factor which makes up the complete home context for purposes of this study. The conceptual framework which underpins this study is discussed in Section 3.5 and the conclusion of this chapter is provided in Section 3.6 in the form of a summary.

3.2 DEFINITIONS OF LITERACY

Literacy plays an important role in the functioning of society, and in the long run a high level of literacy ensures a reduction in poverty and crime, contributes to economic growth and improves the quality of life (Erasmus, 2012). An individual who is able to read and write can take control of his or her life by being able to vote, fill out application forms and use banking services (South African NGO Project Literacy, 2015)
Literacy describes the process of learning to read and write, that is being ‘literate’. There are variations in defining literacy, sometimes referring to both reading and writing, at other times to reading, writing, speaking and listening (Cambridge Assessment Research Report, 2013).

Bond (2011) argues that literacy is a subjective term that is dependent on both a person’s individual needs and the community in which he or she is required to operate. According to Koralek and Collins (2015), it describes the gradual, continuing process of learning to understand and use language that begins at birth and continues through early childhood.

The definition has evolved over time, beyond the focus of simply describing the ability to read and write (Scherba, 2003; Dubin & Kuhlman, 1992). The term now describes the level of competency in a specific domain. Dubin and Kuhlman (1992) discuss what is meant by this by drawing from examples such as computer literacy and health literacy.

Reading literacy is another domain, whereby the level of competency in reading is determined (Dubin & Kuhlman, 1992). A definition of reading is cited from the United States Reading Panel, in conjunction with the Partnership for Reading and the Reading First Law:

….a complex system of deriving meaning from print that requires an understanding of the connection between phonemes and print, the ability to decode unfamiliar words and to read fluently, possess sufficient background information and vocabulary to improve reading comprehension, and the development of appropriate active strategies to construct meaning from print and the maintenance of motivation to read (Report of the National Reading Panel, 1999).

Mullis, Martin, Kennedy, Trong and Sainsbury (2009) define reading literacy as ‘the ability to understand and use those written language forms required by society and/or valued by the individual’. They further state that novice readers can make meaning from a wide range of written information.

With the above definition in mind, one may view reading literacy as an individual’s ability to make sense of the world by referring to the body of rich literacy material. The
next section discusses the home context as a learner contextual factor that may contribute to learner reading literacy achievement.

3.3 HOME CONTEXT AS A CONTRIBUTING FACTOR TO LEARNER READING LITERACY

Khumalo (2014) states that there are a number of learning opportunities and experiences within various contexts that allow a person to obtain reading literacy. A number of studies have been conducted to determine the contextual factors that affect learner achievement (TIMSS, SACMEQ). PIRLS identified four such contexts, namely, community, home, school and classroom contexts. Drawing from the body of literature relating specifically to home context, the following section will provide a definition and outline findings of existing studies from developed and developing countries on the home context as a contributory contextual factor to reading literacy achievement.

Howie et al. (2012) describe the home context as the ‘child’s access to domestic, economic, social and educational resources, parental emphasis on literacy development and parents’ reading behaviour and attitudes that are transferred to the child by means of modelling and direct guidance’. A definition of the home context as an environment in which children acquire linguistic competencies is provided by Niklas and Schneider (2013), who state that the environment in which the family provides the child with opportunities to gain specific precursors of reading and spelling is known as the Home Literacy Environment (HLE).

The South African context of what a parent is or should be is subjective in that children may no longer have their biological parents alive or both parents living with them. In such cases an elderly relative (grandparent), an older sibling, a blood relative (uncle or aunt) or non-blood relative (a guardian) may take the role of the parent. For the purposes of this study, ‘a parent’ is an individual who has taken full responsibility for the child and is the legal caregiver.

There are studies that support the idea of the home having a certain degree of association with how well learners perform academically in the primary school (Groff, 2012; Senechal & LeFevre, 2002).
Socio-Economic Status as a contributory factor is addressed by Flouris and Buchanan (2004), who state that parental involvement in the ‘literacy practices of children is more powerful than any other family background variables such as: social class, family size and parental education’. Chansa-Kabali (2014) refers to findings of a contextual analysis of home environment factors influencing the acquisition of early reading skills in Zambian families, in that the home environment has a positive impact on learner reading skills performance and that parental education and occupation do not have an impact on reading skills. It should be noted, however, that in the contextual analysis study the sample was homogenous with all participant from low income homes.

Senechal and LeFevre (2002) state that there is a direct link between early literacy development and parental guidance in teaching children how to read and write words. They add that there are ‘various pathways that lead to fluent reading’ [which are associated with the home context]. Galindo and Sheldon (2012) support the concept of family involvement and refer to Epstein’s theory of overlapping spheres of influence to further explore possible links between home and school contexts. Where the home is concerned, there is a strong relationship between family involvement and expectations from parents to achievement in reading and maths in the lower grades. The type of involvement that contributes to the development of a good reader is explained by Fiala and Sheridan (2003), who state that the parents of good readers emphasise reading for meaning rather than reading words without grasping the meaning behind them. In an earlier study, Fan and Chen (1999) reported on significant links between parental involvement and learner achievement. A moderator analysis revealed that parents’ aspiration for their children’s academic performance had the strongest relationship and home supervision the weakest.

Weigel, Martin and Bennett (2006) reported on various associations that linked parental reading habits to a strong association with parental reading beliefs, which in turn revealed a strong relationship with parent-child literacy and language activities at home.

From the existing literature, one can deduce that there are a number of contributory factors within the home context that may contribute to reading achievement. The next section discusses the home factors in detail.
3.4 HOME FACTORS ASSOCIATED WITH THE HOME CONTEXT

This sub-section discusses the factors that make up the home context, with the following three factors discussed:

- The Home Learning Environment
- Parental attitudes to reading
- Parental behaviours to reading

3.4.1 The Home Learning Environment

For purposes of this study, the home learning environment is described in terms of parental involvement. Desforges and Abouchaar (2003) describe it as comprising the wide ‘range of learning provisions at home’. These learning provisions may be but are not limited to: reading activities, learning alphabetic conventions, artwork, singing and rhyming. Clark (2007) argues that parental involvement in the learning experience of children has a positive effect on academic performance and that parental involvement in children’s reading tasks at home has an effect on ‘reading achievement, language comprehension and expressive language skills’.

Epstein (2009) illustrates a framework that identifies six major types of parental involvement, as illustrated in Table 3.1 below:
Table 3.1: Six major types of parental involvement (Epstein 2009)

<table>
<thead>
<tr>
<th>Type of involvement</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>parenting</td>
<td>➢ providing housing, health, nutrition, safety; parenting skills in parent-child interactions; home conditions to support study; information to help schools know child</td>
</tr>
<tr>
<td>communicating</td>
<td>➢ school-home/home-school communication</td>
</tr>
<tr>
<td>volunteering</td>
<td>➢ in school help in classrooms/events</td>
</tr>
<tr>
<td>teaching at home</td>
<td>➢ help with homework, help with educational choices/options</td>
</tr>
<tr>
<td>decision making</td>
<td>➢ membership of PTA/governors</td>
</tr>
<tr>
<td>collaborating with the community</td>
<td>➢ contributions to school</td>
</tr>
</tbody>
</table>

Table 3.1 shows the types of parental involvement in children's learning experiences and what each entails. In the process of nurturing educational growth, parents take on different roles whether in the community, at school or home. Where parenting is concerned, the parent is required to provide an environment that is conducive to learning at home. Where communication and volunteering is concerned, the parents are responsible for maintaining communication between themselves and the school, and make time to help with school-related activities. Where teaching at home is concerned, the parent is actively involved in the learning process, providing guidance, making decisions and collaborating with the community in extended support.
3.4.2 Parental attitudes to reading

An attitude can be described as a feeling or emotion towards a fact or state (Merriam-Webster Dictionary, 2017). With this in mind, parental attitudes to reading can be defined as a parent’s feelings towards reading. A number of studies have been conducted to determine the association of parental attitudes to reading and reading achievement (SACMEQ; Beech, 1990; Abu-Rabia & Yaari, 2012; Baker & Scher, 2002), and conflicting opinions have arisen from the findings of some these.

In a Factor analysis, Beech (1990) found no link between parental attitudes and reading achievement but rather referred to one between morality and reading achievement. The results suggested that poorly performing children and their parents “faked good”. Baker and Scher (2002) referred to parents’ attitudes and children’s motivation to read, reporting that children exhibited the same perceptions towards reading, whether directly or indirectly, as did their parents. Baker and Scher (2002) further stated that parental identification of pleasure as a reason for reading predicted children’s motivation for reading, as did parents’ reports that their children took an active interest in learning to read.

3.4.3 Parental behaviours to reading

‘Behaviour’ can be defined as the manner in which one conducts oneself (Merriam-Webster Dictionary, 2017). In an explanatory study on home background, Rowe (1991) reported on strong relationship between parental behaviours to reading and reading achievement, adding that this was despite socio-economic status. Weems and Rogers (2007) agreed with Rowe’s observations, and referred to parental modelling whereby children imitate a parent’s behaviour, and so often develop an interest in reading if the parents are also interested in reading.

3.5 CONCEPTUAL FRAMEWORK FOR THIS STUDY

This study is informed by the post-positivist paradigm, which Willis (2007) describes as a ‘milder form of positivism’ that incorporates similar principles but gives allowance
for more researcher and participant interaction. In support of Willis’ (2007) argument, Creswell (2008) states that it utilises survey and qualitative research methods.

The post-positivist paradigm of inquiry fitted the purpose of the study as the aim was not to satisfy a single facet by primarily drawing on numerical data but rather to identify predictors which are measurable and can be quantified to yield statistical data, while interpreting contextual data that gives meaning to the reading experiences of participants (attitude towards reading).

The identified variables are not manipulated by the researcher, nor is the assumption that human behaviour or action is unpredictable, regardless of measures put into place to ‘mould’ or have a certain effect on those involved (learners). The study is further supported by the principle of a post-positivist notion of having an outcome that is influenced by multiple realities. The challenge associated with the post-positivist paradigm is the minimal incorporation of qualitative methods as participants’ experiences need to be correlated with measurable variables. These experiences cannot solely form part of the findings.

3.5.1 Mediating model of attitudes, behaviour and reading

Clark (2007) emphasises the importance of parental contribution towards children’s successful academic endeavours. The creation of stimulating environments that are conducive to learning at home during the early years are crucial. The relationship between two parental attributes, namely attitudes and behaviour, and reading literacy achievement can be explained through the use of a relationship model. Abu-Rabia and Yaari (2012) developed a model to ‘predict the relationship between parents’ attitudes toward reading, their behaviour and the learning environment that they provide, and their influence on the reading performance of their children’. The model is illustrated below:
Abu-Rabia and Yaari (2012) concluded that parental behaviour showed no direct statistical significance with achievement, however it mediated parental attitudes and reading achievement. From observation, Figure 3.1 shows the possible effect of attitudes on reading achievement. The learning environment at home, in terms of the numerous reading opportunities created by parents has a direct effect on children’s reading achievement. Parents’ behaviours related to reading have an influence on children’s reading achievement, however the way parents behave is dependent on their attitude and how they plan reading activities is determined by their feelings and perceptions of reading.

Although Abu-Rabia and Yaari (2012) refer to parents’ behaviour as dependent on attitudes to be associated with reading literacy, the current study develops a framework whereby parental behaviours constitute an independent contributor to reading achievement.
Figure 3.2 shows the developed model of the Home Learning Environment, Parental Behaviours towards Reading and Parental Attitudes to Reading. PIRLS 2011 refers to parental behaviour as a stand-alone contributor to reading achievement, so parental behaviour is not seen as a result of attitudes. It should also be noted that an individual may not necessarily think highly of an activity/task but may do so regardless.

These factors are primarily focused on what parents do within the home context as part of children’s reading literacy development. Similarities to what this study aims to achieve and Figure 3.1 lie in that both view parental attitudes and behaviours as well as the home learning environment are possible contributors to reading achievement.
3.6 SUMMARY

This chapter has provided detail on the body of literature on the home context as contributor to reading literacy development, referring to the conceptual framework that guides this study and a newly developed framework that views parental behaviour as an equal contributor to reading literacy rather than one that is dependent on parental attitudes.
CHAPTER 4

RESEARCH DESIGN AND METHODS

4.1 INTRODUCTION

This study seeks to investigate the relationship between parents’ attitudes and behaviours to reading and learner reading literacy achievement in Grade 5. This chapter discusses the research design and methodology of the current study.

The next section (4.2) discusses the study research design and refers to the paradigm that addresses the study. Section 4.3 provides detail regarding the research methods, and the development of the scales for the regression analysis used. Section 4.4 refers to methodological norms of PIRLS 2011 that have relevance to the current study. Section 4.5 refers to the ethical consideration of this study. A summary on this chapter is provided in Section 4.6.

4.2 RESEARCH DESIGN AND METHODS: CURRENT STUDY

This study is a secondary analysis and adopts a quantitative approach, in which ‘post-positivist assumptions of developing knowledge are employed within strategies of inquiry that yield statistical data’ (Creswell 2003).

Creswell (2003) defines ‘post-positivist research’ in accordance with Phillips and Burbules (2000), who state that the term refers to the extension of thought after positivism which aims to challenge traditional relationships of truth to knowledge. It further states that no absolute claim of knowledge can be granted when studying human behaviour and actions, thus, a gap of the unknown may be apparent and a notion of variation amongst different individuals ought to be considered.

As a secondary analysis, this study makes use of existing data, collected for the purposes of a prior study (Hinds, Vogel & Clarke-Steffen, 1997). The survey data as part of this study serves as evidence of what is to be investigated, with the study functioning independently and seeking to explore realities distinct from the original study.
Vartanian (2011) is of the opinion that ‘secondary data includes any data that is examined to answer a research questions other than the initial question that the data was collected for’. This supports the argument by Hinds et al. (1997) and Boslaugh (2007) on the distinction between primary and secondary data that relies solely on the relationship between the researcher who collected the data and the individual analysing it. The data is said to be secondary if the person who collected it is different from the person analysing it. This study seeks to make use of data collected for the purposes of PIRLS 2011 to address a newly emerging research question. The main research question is as follows:

**To what extent are parents’ attitudes and behaviours to reading associated with learner reading literacy achievement in Grade 5?**

The sub-questions are:

1. How does parental involvement affect learner reading achievement based on the evidence of the PIRLS 2011?
2. What are the implications of the PIRLS 2011 results for the South African education system?

The study draws from selected data from PIRLS 2011, specifically items from the parent questionnaires as well as the achievement assessments of the learners. The selected items provide detail on the home context relevant to this study. The dataset acquired is nationally representative of Grade 5 learners who were tested in Afrikaans and English. It identifies variables that may be supported by acquired secondary data, the aim being to use it to predict reading literacy achievement results.

4.2.1 Development of Measurement Scales

Table 4.1 (below) details the five selected items from the parent questionnaire, the home factors associated with each item, the questions as well as the response options given to parents. It also provides a clear description of the re-coding process of some items from the questionnaire and how scales for each home factor were developed. Re-coding was necessary to allow for the development of a scale.
<table>
<thead>
<tr>
<th>Item</th>
<th>Home Factor</th>
<th>Question from the parent questionnaire</th>
<th>Response options</th>
<th>Re-coding</th>
<th>Development of Home Learning Environment, Behaviour and Attitude scales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q2</td>
<td>Home Learning Environment</td>
<td>Before your child began primary/elementary school, how often did you or someone else in your home do the following activities with him or her? &lt;br&gt; a. Read books &lt;br&gt; b. Tell stories &lt;br&gt; c. Sing songs &lt;br&gt; d. Play with alphabet toys (e.g., blocks with letters of the alphabet) &lt;br&gt; e. Talk about things you had done &lt;br&gt; f. Talk about what you had read &lt;br&gt; g. Play word games &lt;br&gt; h. Write letters or words &lt;br&gt; i. Read aloud signs and labels &lt;br&gt; j. Say counting rhymes or sing counting songs &lt;br&gt; k. Play with number toys (e.g., blocks with numbers) &lt;br&gt; l. Count different things &lt;br&gt; m. Play games involving shapes (e.g., shape sorting toys, puzzles) &lt;br&gt; n. Play with building blocks or construction toys &lt;br&gt; o. Play board games or card games</td>
<td>1. Often 2. Sometimes 3. Never or almost never</td>
<td>This item was not re-coded, the response options stayed the same</td>
<td>This item (Q2) was combined with Q9 to create the Home Learning Environment scale. This scale was developed using IDB Analyzer software.</td>
</tr>
<tr>
<td>Q9</td>
<td>Home Learning Environment</td>
<td>How often do you or someone else in your home do the following things with your child? &lt;br&gt; a. Discuss my child’s schoolwork with him/her &lt;br&gt; b. Help my child with his/her schoolwork &lt;br&gt; c. Make sure my child sets aside time to do his/her homework &lt;br&gt; d. Ask my child what he/she learned in school &lt;br&gt; e. Check if my child has done his/her homework &lt;br&gt; f. Help my child practice his/her reading &lt;br&gt; g. Help my child practice his/her maths skills &lt;br&gt; h. Talk with my child about what he/she is reading</td>
<td>1. Every day or almost every day 2. Once or twice a week 3. Once or twice a month 4. Never or almost never</td>
<td>This item was re-coded, the response options were converted to be the same as in Q2: &lt;br&gt; - Response Option 1 (every day or almost every day) was converted to Often &lt;br&gt; - Response Option 2 (once or twice a week) was converted to Sometimes</td>
<td>This item (Q9) was combined with Q2 to create the Home Learning Environment scale. This scale was developed using IDB Analyzer software.</td>
</tr>
</tbody>
</table>
| Q11 | Behaviour | In a typical week, how much time do you usually spend reading for yourself at home, including books, magazines, newspapers, and materials for work (in print or electronically)? | 1. Less than one hour a week  
2. 1–5 hours a week  
3. 6–10 hours a week  
4. More than 10 hours a week | This item was re-coded, new response options were created:  
- Response Option 1 (less than one hour a week) was converted to Never  
- Response Option 2 (1-5 hours a week) was converted to Sometimes  
- Response Option 3 (6-10 hours a week) was converted to Sometimes  
- Response Option 4 (more than 10 hours a week) was converted to Often | This item (Q11) was combined with Q12 to create the Behaviour scale. This scale was developed using IDB Analyzer software. |
| Q12 | Behaviour | When you are home how often do you read for your own enjoyment? | 1. Every day or almost everyday  
2. Once or twice a week  
3. Once or twice a month  
4. Never or almost never | This item was re-coded, new response options were created:  
- Response Option 1 (every day or almost every day) was converted to Often  
- Response Option 2 (once or twice a week) was | This item (Q12) was combined with Q11 to create the Behaviour scale. This scale was developed using IDB Analyzer software. |
Q13 | Attitudes | Please indicate how much you agree with the following statements about reading.
\[\begin{array}{l}
    \text{a. I read only if I have to} \\
    \text{b. I like talking about what I read with other people} \\
    \text{c. I like to spend my spare time reading} \\
    \text{d. I read only if I need information} \\
    \text{e. Reading is an important activity in my home} \\
    \text{f. I would like to have more time for reading} \\
    \text{g. I enjoy reading}
\end{array}\] | 1. Agree a lot  \\
2. Agree a little  \\
3. Disagree a little  \\
4. Disagree a lot | This item was not re-coded, the response options stayed the same | This item was not combined with any other item. The Attitudes scale was created using the IDB Analyzer software.

**Table 4.1: Selected items from parent questionnaire, re-coding and development of home factor scales**
4.2.2 Methodological norms

Drost (2011) states that ‘reliability is the extent to which measurements are repeatable – when different persons perform the measurements, on different occasions, under different conditions, with supposedly alternative instruments which measure the same thing’, adding that in the social sciences, validity refers to the extent to which what is intended to be measured is actually measured. Herlihy, Karger, Pollard, Hill, Kraft, Williams and Howard (2014) refer to assessment and define validity as referring to representation of ‘underlying traits’ and reliability as the consistency of results.

Martin and Mullis (2008) refer to PIRLS aspects of reliability as having administered the tests and questionnaires under similar conditions in schools and having learners, parents and teachers answer the same questions. They further refer to the assessing and scoring of tests as having been conducted consistently across countries following standardised survey operations procedures. For purposes of the current study, selected variables from the parent questionnaire were tested for reliability using Cronbach’s Aplha coefficient.

Mullis et al. (2012) state that PIRLS attains high validity by setting tests in accordance with the PIRLS assessment framework, which was designed specifically to serve the purpose of the study. An indication of high validity of PIRLS is the use of collected data as evidence of assumptions made about reading achievement (emerging trends in achievement and comparability across countries) (Martin & Mullis, 2008).

4.3 RESEARCH ETHICS

The CEA requested permission from the Minister of Basic Education to conduct PIRLS 2011 in schools, which was granted and the schools had the opportunity to decline participation in the study. The sample for PIRLS 2011 consisted of 100 schools nationally of which 92 participated in the study. The total number of learners who participated in PIRLS 2011 was 14,657. At the school level, teacher participation in the study was completely voluntary. At the learner level, learners were requested to
participate in the study by completing and signing an assent form. Furthermore, written consent from learners’ parents was requested prior to testing dates.

The current study made use of existing data from the PIRLS 2011, and the researcher did not collect primary data. The names of learners and their parents, as well as the participant schools’ names will remain anonymous and will not be used in the proposed study. This study has also acquired ethical clearance from the University of Pretoria’s Ethics Committee.

4.4 SUMMARY

In this chapter the research design and method of the current study were discussed, with particular reference to selected items from the parent questionnaire and the development of scales for these. Methodological norms and research ethics were also highlighted.
CHAPTER 5

RESULTS

This study aims to determine the association between parents’ attitudes and behaviours to reading and learner reading literacy achievement in Grade 5. This chapter will discuss the descriptive results of the selected variables from the PIRLS 2011 parent questionnaires.

Section 5.1 begins by detailing the participating countries in tabular format, with section 5.2 providing a description of Grade 5 South African learners’ overall reading achievement and Section 5.3 discussing the descriptive results of the selected variables from the parent questionnaire.

5.1 PIRLS 2011 PARTICIPANTS

South Africa participated in PIRLS 2011 as a benchmarking participant. Mullis et al. (2012) explained in the PIRLS 2011 Executive Summary report that benchmarking participants was mostly by specific regions within countries that tested sub-populations representing certain languages. In the case of South Africa, this was Grade 5 learners who had been taught in either English or Afrikaans from the Foundation Phase.

A total of 49 countries and nine benchmarking participants participated in PIRLS 2011, of which 45 assessed Grade 4 learners and the others chose an alternative route. Four countries assessed Grade 6 learners and three participated in prePIRLS, an easier assessment aimed at assessing Grade 4 learners. The nine benchmarking participants comprised three Canadian provinces, two Emirates, an Andalusian region of Spain, Abu Dhabi, Dubai, South Africa and the Florida state of the United States of America. Table 5.1 (below) lists the countries that participated in PIRLS 2011 (as adapted from the PIRLS 2011 International Report):
Table 5.1: PIRLS 2011 participating countries

<table>
<thead>
<tr>
<th>Participants</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Oman</td>
</tr>
<tr>
<td>Austria</td>
<td>Poland</td>
</tr>
<tr>
<td>Azerbaijan</td>
<td>Portugal</td>
</tr>
<tr>
<td>Belgium (French)</td>
<td>Qatar</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>Romania</td>
</tr>
<tr>
<td>Canada</td>
<td>Russian Federation</td>
</tr>
<tr>
<td>Chinese Taipei</td>
<td>Saudi Arabia</td>
</tr>
<tr>
<td>Colombia</td>
<td>Singapore</td>
</tr>
<tr>
<td>Croatia</td>
<td>Slovak Republic</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>Slovenia</td>
</tr>
<tr>
<td>Denmark</td>
<td>South Africa</td>
</tr>
<tr>
<td>England</td>
<td>Spain</td>
</tr>
<tr>
<td>Finland</td>
<td>Sweden</td>
</tr>
<tr>
<td>France</td>
<td>Trinidad and Tobago</td>
</tr>
<tr>
<td>Georgia</td>
<td>United Arab Emirates</td>
</tr>
<tr>
<td>Germany</td>
<td>United States</td>
</tr>
<tr>
<td>Hong Kong SAR</td>
<td><strong>Grade 6 Participants</strong></td>
</tr>
<tr>
<td>Hungary</td>
<td>Botswana</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Honduras</td>
</tr>
<tr>
<td>Iran, Islamic Republic of</td>
<td>Kuwait</td>
</tr>
<tr>
<td>Ireland</td>
<td>Morocco</td>
</tr>
<tr>
<td>Israel</td>
<td><strong>Benchmarking Participants</strong></td>
</tr>
<tr>
<td>Kuwait</td>
<td>Alberta, Canada</td>
</tr>
<tr>
<td>Italy</td>
<td>Ontario, Canada</td>
</tr>
<tr>
<td>Lithuania</td>
<td>Quebec, Canada</td>
</tr>
<tr>
<td>Malta</td>
<td>Maltese-Malta</td>
</tr>
<tr>
<td>Morocco</td>
<td>English and Afrikaans Grade 5, South Africa</td>
</tr>
<tr>
<td>Netherlands</td>
<td>Andalusia, Spain</td>
</tr>
<tr>
<td>New Zealand</td>
<td>Abu Dhabi, UAE</td>
</tr>
<tr>
<td>Northern Ireland</td>
<td>Dubai, UAE</td>
</tr>
<tr>
<td>Norway</td>
<td>Florida, US</td>
</tr>
</tbody>
</table>
In PIRLS 2011, learner reading literacy achievement was measured using Item Response Theory (IRT) scaling. Described by Mullis et al. (2012) as being based on the achievement distribution scores of participating countries, PIRLS 2011 set a scale centre point of 500 points, with a standard deviation of 100 points. All learner achievement scores are therefore placed relative to the mean centre point of 500 points.

5.2 SOUTH AFRICAN GRADE 5 LEARNERS’ OVERALL READING ACHIEVEMENT IN PIRLS 2011

Table 5.2 (below) details the benchmarking participants’ achievement scores. South Africa scored the lowest of all nine participants, with 421 points (SE=7.3). Although this may be seen as above average (given that the centre point was 500 points), it should be noted that South African Grade 5 learners were tested with PIRLS which assesses Grade 4 learner reading achievement internationally. A full report on these achievement scores is available in the PIRLS 2011 International Report.

<table>
<thead>
<tr>
<th>Benchmarking Participants</th>
<th>Reading literacy achievement score</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Florida, United States</td>
<td>569 points</td>
<td>2.9</td>
</tr>
<tr>
<td>Ontario, Canada</td>
<td>552 points</td>
<td>2.6</td>
</tr>
<tr>
<td>Alberta, Canada</td>
<td>548 points</td>
<td>2.9</td>
</tr>
<tr>
<td>Quebec, Canada</td>
<td>538 points</td>
<td>2.1</td>
</tr>
<tr>
<td>Andalusia, Spain</td>
<td>515 points</td>
<td>2.3</td>
</tr>
<tr>
<td>Dubai, UAE</td>
<td>476 points</td>
<td>2.0</td>
</tr>
<tr>
<td>Maltese-Malta</td>
<td>457 points</td>
<td>1.5</td>
</tr>
<tr>
<td>Abu Dhabi, UAE</td>
<td>424 points</td>
<td>4.7</td>
</tr>
<tr>
<td>South Africa, English and Afrikaans Grade 5 learners</td>
<td>421 points</td>
<td>7.3</td>
</tr>
</tbody>
</table>
5.3 DESCRIPTIVE RESULTS OF THE SELECTED VARIABLES FROM THE PARENT QUESTIONNAIRE

The variables selected from the parent questionnaire were chosen in accordance with the conceptual framework that underpins this study.

For purposes of this study, three home level factors associated with reading literacy in Grade 5 have been identified. Figure 5.1 (below) details these factors and the variables from the parent questionnaire associated with each, including how the entire home level might contribute to reading literacy achievement in Grade 5:

*Figure 5.1: Home level factors associated with PIRLS 2011 parent questionnaire variables*

5.3.1 The Home Learning Environment

The Home Learning Environment refers to the number of learning opportunities made available to the learner at home (Desforges & Abouchaar, 2003). The following table provides a description of the selected variables from the parent questionnaire.
### Table 5.4: Home Learning Environment variables from the PIRLS 2011 parent questionnaire

<table>
<thead>
<tr>
<th>Item</th>
<th>Questions from parent questionnaire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q2</td>
<td>Before your child began primary/elementary school, how often did you or someone else in your home do the following activities with him or her?</td>
</tr>
<tr>
<td></td>
<td>p. Read books</td>
</tr>
<tr>
<td></td>
<td>q. Tell stories</td>
</tr>
<tr>
<td></td>
<td>r. Sing songs</td>
</tr>
<tr>
<td></td>
<td>s. Play with alphabet toys (e.g., blocks with letters of the alphabet)</td>
</tr>
<tr>
<td></td>
<td>t. Talk about things you had done</td>
</tr>
<tr>
<td></td>
<td>u. Talk about what you had read</td>
</tr>
<tr>
<td></td>
<td>v. Play word games</td>
</tr>
<tr>
<td></td>
<td>w. Write letters or words</td>
</tr>
<tr>
<td></td>
<td>x. Read aloud signs and labels</td>
</tr>
<tr>
<td></td>
<td>y. Say counting rhymes or sing counting songs</td>
</tr>
<tr>
<td></td>
<td>z. Play with number toys (e.g., blocks with numbers)</td>
</tr>
<tr>
<td></td>
<td>aa. Count different things</td>
</tr>
<tr>
<td></td>
<td>bb. Play games involving shapes (e.g., shape sorting toys, puzzles)</td>
</tr>
<tr>
<td></td>
<td>cc. Play with building blocks or construction toys</td>
</tr>
<tr>
<td></td>
<td>dd. Play board games or card games</td>
</tr>
</tbody>
</table>

| Q9   | How often do you or someone else in your home do the following things with your child? |
|      | i. Discuss my child’s schoolwork with him/her |
|      | j. Help my child with his/her schoolwork   |
|      | k. Make sure my child sets aside time to do his/her homework |
|      | l. Ask my child what he/she learned in school |
|      | m. Check if my child has done his/her homework |
|      | n. Help my child practice his/her reading |
|      | o. Help my child practice his/her math skills |
|      | p. Talk with my child about what he/she is reading |

5.3.1.1 Results of activities done at home with the learner before he/she began school

Overall, the parents of Grade 5 learners who reported that they had engaged in reading or counting activities with their children before they started school were expected to score higher (above 400 points) than those whose parents had reported that they had not done any reading or counting activities (below 400 points) with their children.

A total of 44.4% (SE 1.9) of learners’ parents reported having played with building blocks or construction toys with their children before they started school and were expected to score an average of 462.1 (SE 8.7). The learners’ parents (21.2%, SE
1.4) who reported not having played with building blocks or construction toys with their children before they started school were expected to score an average of 373.7 (SE 8.6), which is a significant difference in expected scores (88.4 points fewer than the former). The parents of Grade 5 learners (46.2%, SE 1.3) who reported having written alphabet letters with their children before they started school were expected to score an average of 444.9 (SE 8.0), while learners’ parents (12.6, SE 1.6) who reported not having written letters were expected to score 384.7 (SE 1.4), again illustrating a significant difference in expected scores (60.2 points) in the absence of activities by parents.

A noticeable number of parents reported having overall not done any reading or counting activities with their children before they started school. Approximately 20% of parents reported this in their response.

The results pertaining to activities with learners before they started school favoured the home learning environment as a predictor of reading literacy achievement.

5.3.1.2 Results of how often reading activities are done with learner at home

Overall, there was no apparent connection between the expected scores of learners whose parents reported having engaged in the learning experiences of their children on a daily or weekly basis to those who reported having only engaged with learners on a monthly basis or never. A total of 7.4% (SE=0.8) of the learners’ parents who reported not having helped their children practice their reading had an expected score of 450.3 (SE=22.7) points. The parents of Grade 5 learners who reported having helped their children practice reading every day and once a week were expected to reach an average of 418.2 (SE 7.5) and 427.2 (SE=7.6) points respectively. In this case, frequent assistance seemed to be associated with lower reading literacy achievement, indicating that strong readers may not necessarily require additional assistance from parents.

A majority of learners’ parents (59.8%, SE=1.6) reported having helped their children with schoolwork every day, the expected score for learners in this case being 422.63 (SE= 6.94). Meanwhile, 30.72% (SE=1.15) of Grade 5 learners’ parents reported having helped their children with schoolwork once a week, when learners can be
expected to reach an average of 427.75 (SE= 8.73). Again, results indicated that frequent assistance did not equate with higher reading literacy achievement scores, but these results should be interpreted with caution. It might be that learners whose parents helped them daily with homework were already struggling and therefore not gaining an advantage, even with help from parents.

50.74% (SE=1.94) of learners’ parents reported having talked to their children about what they were reading every day. These learners were expected to score an average of 416.3 (SE=7.5) points. Of the 34.0% (SE=1.3) of learners’ parents who reported having talked with their children only once a week about what they had read, these learners were expected to score higher with an average of 438.6 (SE= 8.6) points. Even the learners’ parents (9.4%, SE=1.2) who reported having only talked about what their children had read once a month, were expected to score higher than the everyday group with an average score of 427.7 (SE=14.8). 5.8% (SE=0.7) of learners’ parents who reported not having talked about what their children had read, and these learners were expected to score an average of 409.4 (SE=15.2) points, which is only a 6.84 point difference from the everyday group.

Fewer than 10% of learners’ parents reported not having engaged in the learning experiences of their children once they started school, indicating that parents might have seen the importance of the home learning environment in reading literacy development.

The results pertaining to how often reading activities were conducted with the learners at home once they started school, did not support the notion of the home learning environment contributing to reading literacy achievement as there was no noticeable difference in means with regards to the achievement points of Grade 5 learners. The results also indicated that a higher percentage of parents (average of 50%) were more involved in the learning experiences of their children once they started school.

5.3.2 Behaviour

The Merriam-Webster Dictionary (2017) defines ‘behaviour’ as the manner in which one conducts oneself. For purposes of this study, it refers to the manner in which
parents engage with reading material by themselves. The following table provides a description of the selected variables from the parent questionnaire.

Table 5.5: Behaviour variables from parent questionnaire

<table>
<thead>
<tr>
<th>Item</th>
<th>Variable names from parent questionnaire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q11</td>
<td>In a typical week, how much time do you usually spend reading for yourself at home, including books, magazines, newspapers, and materials for work (in print or electronically)?</td>
</tr>
<tr>
<td>Q12</td>
<td>When you are home how often do you read for your own enjoyment?</td>
</tr>
</tbody>
</table>

5.3.2.1 Time spent reading by oneself in a typical week

16.3% (SE=0.9) of Grade 5 learners' parents reported having spent more than 10 hours a week reading by themselves at home. The expected score for learners in this case was an average of 456.42 (SE=11.78) points, which is the highest expected score for this amount of time spent on reading by parents. 14.4% (SE=0.85) of learners' parents reported having spent 6-10 hours a week reading independently, therefore they were expected to score an average mean of 452.3 (SE=10.2) points, with only a 4.11 point difference between the two groups.

A larger percentage of Grade 5 learners' parents (39.2%, SE=1.3) reported having spent only 1-5 hours a week reading by themselves, with the expected score for learners in this case expected to be 429.4 (SE 7.7) points. On the other hand, 30.15% (SE=1.31) of learners' parents reported having read less than 1 hour a week, the expected score for learners being the lowest for this question with an average of 379.71 (SE=8.06), which is a 76.71 point difference from the learners' parents who reported having read independently more than 10 hours a week. Results from this question favoured parental reading behaviour as a contributor to reading literacy achievement. The very low percentages of parents who infrequently read independently may be of concern.
5.3.2.3 Frequency of reading for enjoyment at home

The frequency of parents reading at home corresponds with expected learner achievement. The fewer parents reported having read for enjoyment the lower the achievement score of learners. A large percentage of parents reported having frequently read for enjoyment when at home.

More specifically, 42.9% (SE=1.8) of learners’ parents reported having read for enjoyment every day or most days when at home, the expected learner achievement was an average of 442.3 (SE=8.7) points. 37.5% (SE=1.49) of learners’ parents reported having read once or twice a week for their own enjoyment, and here the expected learner achievement score was 410.1 (SE=7.9) points, which is 32 points fewer than the everyday group. A small percentage of Grade 5 learners’ parents (10.5% SE=0.8) reported having read for enjoyment at home only once or twice a month, in which case the expected learner achievement score was an average of 403.6 (SE=11.8) points. A lower percentage of learners’ parents, 9.20% (SE=0.89) reported having never or almost never read at home for enjoyment, in which case the expected learner achievement score was the lowest with an average of 398.42 (SE=10.01) points.

Results pertaining to the frequency of reading for enjoyment at home indicated a pattern and favoured behaviour as a contributor to reading literacy. In cases of parents reading more for enjoyment, the expected learner reading achievement points were also higher.

5.3.3 Attitude

‘Attitude’ can be described as a feeling or emotion towards a fact or state (Merriam-Webster Dictionary, 2017). For purposes of this study, it refers to parents’ feelings towards reading. The following table provides the selected variables from the parent questionnaire that measured aspects of parental attitudes toward reading.
Table 5.6: Attitude variables from parent questionnaire

<table>
<thead>
<tr>
<th>Item</th>
<th>Question from parent questionnaire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q13</td>
<td>Please indicate how much you agree with the following statements about reading.</td>
</tr>
<tr>
<td>h.</td>
<td>I read only if I have to</td>
</tr>
<tr>
<td>i.</td>
<td>I like talking about what I read with other people</td>
</tr>
<tr>
<td>j.</td>
<td>I like to spend my spare time reading</td>
</tr>
<tr>
<td>k.</td>
<td>I read only if I need information</td>
</tr>
<tr>
<td>l.</td>
<td>Reading is an important activity in my home</td>
</tr>
<tr>
<td>m.</td>
<td>I would like to have more time for reading</td>
</tr>
<tr>
<td>n.</td>
<td>I enjoy reading</td>
</tr>
</tbody>
</table>

5.3.3.1 Extent of agreement with positive/negative statements about reading

Overall, expected learner achievement was higher (above 400 points) in cases when learners’ parents reported having had a positive attitude to reading as opposed to those who had a negative attitude to reading. 31.6% (SE=1.53) of Grade 5 learners’ parents disagreed with reading only if they had to, with an expected learner achievement score of 481.8 (SE=8.7) points. On the other hand, 33.1% (SE=1.6) of learners’ parents who agreed a lot to having to read only if they had to, the expected learner achievement score was 389.2 (SE=8.7) points, which is noticeably lower than the former.

A large percentage of Grade 5 learners’ parents expressed a positive view on reading. 61.10% (SE=1.29) of learners’ parents agreed a lot to liking to talk about what they had read, 62.59% (SE=1.10) of learners’ parents agreed that reading was important, 71.03 (SE=1.13) of learners’ parents expressed that they would like more time to read and 74.52% (SE=1.33) of learners’ parents agreed a lot with enjoying reading. The expected learner achievement scores for these were 426.5 (SE=7.8), 430.7 (SE=7.6) and 430.4 (SE=7.2) points respectively.

It should be noted that although a large percentage of learners’ parents reported positive views on reading, sub-questions that combined views with their actual behavioural patterns yielded different responses from parents. For the sub-question referring to reading only if necessary, 33.09% (SE=1.58) of learners’ parents agreed a lot to reading only for information, 22.16% (SE=1.47) agreed a little, 13.17%
(SE=0.66) disagreed a little and 31.58% (SE=1.53) disagreed a lot. For the sub-question referring to reading only for information, 26.12% (SE=1.38) of parents agreed a lot, 22.40% (SE=1.00) agreed a little, 17.54% (SE=0.85) of parents disagreed a little and 33.94% (SE=1.32) disagreed a lot. These results indicate that parents value reading, however they still had some reservations of their own.

Results pertaining to the extent of agreement with positive/negative statements about reading, although with minimum difference in learner achievement scores, seemed to favour positive parental attitude as a contributor to reading literacy.

5.4 RELIABILITY RESULTS

This section discusses the reliability of the developed scales from the selected items from the parent questionnaire. As the selected questions are Linkert scale questions, Cronbach’s alpha approach is utilised to measure internal consistency (Field 2009). Table 5.7 details the home factor scales developed and the reliability coefficient of each.

*Table 5.7: Reliability coefficient for Learner Home Learning Environment, Parental Behaviour toward Reading and Parental Attitude to Reading scales*

<table>
<thead>
<tr>
<th>Home Factor Scale</th>
<th>Reliability coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home Learning Environment</td>
<td>0.09</td>
</tr>
<tr>
<td>Parental Reading Behaviour</td>
<td>0.53</td>
</tr>
<tr>
<td>Parental Attitude to Reading</td>
<td>0.52</td>
</tr>
</tbody>
</table>

Field (2009) explains that a majority of literature may state that a value of .7 or .8 for Cronbach’s $\alpha$ is acceptable. Cortina (1993) had previously argued that the value of Cronbach’s $\alpha$ depended on the number of items on the scale. In the case of this study, the Parental Reading Behaviour scale has only two items while the Parental Attitude to Reading scale has only six items. Both of these scales show a lower value for
Cronbach’s α that could be attributed to a small number of items, of which the scale consists.

The Home Learning Environment scale has 23 items and a higher value for α. MacMilan and Schumacher (2001) revealed an exception to the rule by stating that a value below .5 may also be acceptable provided that results are related to the whole group and not the individual. The reliability for the Home Learning Environment, Parental Reading Behaviour as well as Parental Attitude to Reading are thus acceptable for purposes of the current study.

5.5 MULTIPLE REGRESSION ANALYSIS RESULTS

The main research question asked was: To what extent are parental attitudes and behaviours to reading associated with learner reading literacy achievement in Grade 5?

The first sub-question was: How does parental involvement affect learner reading achievement based on the evidence of the PIRLS 2011?

The second sub-question was: What are the implications of the PIRLS 2011 results for the South African education system?

Field (2009) defines multiple regression analysis as a method of predicting an outcome variable from a number of predictor variables. Abdel- Salam (2009) supports this notion and states that multiple-regression is the use of various independent variables to predict the outcome of a single dependent variable. In this study, learner reading achievement is said to be predicted by three home factors. Figure 5.2 (below) illustrates the three home level predictor variables and the outcome variable.
Figure 5.2: Home Level Reading Literacy Predictors

A basic equation representing the Multiple Regression method is adapted from Field (2009), Field (2009) interprets the equation as below:

$$y_i = b_0 + b_1 x_{1i} + b_2 x_{2i} + \ldots + b_p x_{pi} + e_i$$

Table 5.8 explains what each symbol in the equation represents as explained by Field (2009):

<table>
<thead>
<tr>
<th>Model Symbol</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>$y_i$</td>
<td>Dependent variable (which is what is being predicted)</td>
</tr>
<tr>
<td>$b_0$</td>
<td>Intercept</td>
</tr>
<tr>
<td>$b_1$</td>
<td>Coefficient of first predictor</td>
</tr>
<tr>
<td>$x_{1i}$</td>
<td>First predictor (one of the home level factors)</td>
</tr>
<tr>
<td>$b_2 x_{2i}$</td>
<td>Coefficient of second predictor and second predictor</td>
</tr>
<tr>
<td>$b_p x_{pi}$</td>
<td>Coefficient of nth predictor and nth predictor</td>
</tr>
<tr>
<td>$e_i$</td>
<td>Difference between predicted and observed value of $Y$</td>
</tr>
</tbody>
</table>
The International Database Analyzer (IDB Analyzer) was utilised for the Multiple Regression Analysis. IDB analyzer is software which uses SPSS as a platform. Below, Table 5.9 details the results of this analysis:

**Table 5.9: Multiple Regression Coefficients**

<table>
<thead>
<tr>
<th>Home Level Factor</th>
<th>Regression coefficients</th>
<th>Coefficient (SE)</th>
<th>Coefficient t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>553.75</td>
<td>28.28</td>
<td>19.58.</td>
</tr>
<tr>
<td>Home Learning Environment</td>
<td>-4.14</td>
<td>.57</td>
<td>-7.27</td>
</tr>
<tr>
<td>Parental Behaviour toward Reading</td>
<td>-18.23</td>
<td>3.02</td>
<td>-6.09</td>
</tr>
<tr>
<td>Parental Attitudes to Reading</td>
<td>8.44</td>
<td>1.45</td>
<td>5.67</td>
</tr>
</tbody>
</table>

It should be noted that a negative relationship is represented by a negative sign proceeding the coefficient, while a positive relationship is represented by no sign proceeding the coefficient (Field, 2009). Field (2009) further explains that the t-values give an indication of the level of association, and in this case, anything above 2.58 shows statistical significance at the 0.01 level. The next sub-section of this chapter will discuss responses to the research questions by referring to details from the multiple regression.

From Table 5.9 (above), Home Learning Environment and Parental Behaviour to Reading are negatively associated with learner reading achievement. In the absence of a supportive Home Learning Environment and positive Parental Behaviours in favour of reading, then learner reading achievement is expected to decrease by -4.14
and -18.23 points respectively. Parental Attitudes toward Reading show a positive association with learner reading achievement, meaning that if Parental Attitudes are positive and present, then learner achievement is expected to improve by 8.44 points.

Table 5.9 also shows that t-values for the Home Learning Environment, Parental Behaviours to Reading and Parental Attitudes toward Reading are above 2.58, therefore indicating statistical significance at the 0.01 level. The model variance is provided in Table 5.10 (below).

**Table 5.10: Model Statistics**

<table>
<thead>
<tr>
<th></th>
<th>R-Square</th>
<th>R-Square (SE)</th>
<th>Adjusted R-Square</th>
<th>Adjusted R-Square (SE)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.17</td>
<td>.03</td>
<td>.17</td>
<td>.03</td>
</tr>
</tbody>
</table>

Table 5.10 shows the variance explained by the model. At .17, R-Square indicates 17% variance, with a Standard Error of .03. The Adjusted R-Square is at .17 (SE=.03).

5.6 SUMMARY

This chapter has discussed the South African Grade 5 learners’ overall reading achievement in PIRLS 2011 and the findings of the current study. South Africa participated in PIRLS as benchmarking participants, that is, countries that had subgroups that participated in the PIRLS study. Of the nine benchmarking participants, South Africa achieved the lowest, despite having tested Grade 5 learners on an assessment meant for Grade 4 learners internationally.

The descriptive results of the Home Level Factors indicated that these factors make statistically significant contributions to learner reading achievement. In cases of the Home Learning Environment and Parental Behaviour being at a minimum, learner reading achievement is expected to decrease. When positive Parental Attitudes are present, learner achievement is expected to increase.
It should also be noted that although no generalisations can be made in relation to the PIRLS 2011 results, it can be said that parents’ role in the development of reading literacy skills contributes to the overall achievement of learners in the primary school.
CHAPTER 6

CONCLUSIONS AND RECOMMENDATIONS

6.1 INTRODUCTION

This study aimed to determine the association between parental attitudes and behaviours to reading and learner reading literacy achievement in Grade 5. It utilised PIRLS 2011 data, specifically from Grade 5 learner reading achievement and parent questionnaires to determine whether there is an association between learner reading achievement and parental attitudes and behaviours to reading.

This chapter provides a summary of the research in Section 6.2, with a summary of the main results in Section 6.3 and the conceptual framework that underpinned the study is discussed in Section 6.4. The discussion on the design and methodology are provided in Section 6.5, with details on the limitations of this study are provided in Section 6.6, followed by research recommendations in Section 6.7.

6.2 SUMMARY OF STUDY

PIRLS is an international comparative trend study conducted every four years with the support of the International Association for the Evaluation of Educational Achievement (IEA) (Howie et. al, 2012). PIRLS assesses the reading literacy of learners in Grade 4, with PIRLS 2011 the second cycle of PIRLS in which South Africa participated in and the first having been PIRLS 2006. South Africa participated as a Benchmarking participant and tested only Grade 5 learners in English and Afrikaans with PIRLS to enable some trend comparison between the 2006 and 2011 cycles. It should be noted that Benchmarking participants are countries with sub-groups that participated in the PIRLS study.

South African Grade 5 learners achieved the lowest score of all benchmarking participants, 421 points compared to the centre point of 500 points. It should be noted
that PIRLS aims to assess reading literacy achievement of Grade 4 learners internationally.

This study focused on three identified home level factors that can be associated with reading literacy, namely, home learning environment, parental behaviour toward reading and parental attitudes to reading. Scales to measure the Home Level Factors were developed with IBD Analyzer software that uses SPSS as a platform for statistical analysis.

Overall, a majority of parents reported having participated in the learning experiences of their children and this had a positive association with reading literacy achievement. The expected scores of learners whose parents reported having created positive reading opportunities at home scored marginally higher than those whose parents reported having sometimes or never having created positive reading opportunities. Multiple Regression Coefficients indicated that Home Learning Environment and Parental Behaviour to Reading had negative association, while Parental Attitudes toward Reading had positive association with reading literacy achievement. This means that in the absence of positive parental behaviour and attitudes to reading, literacy among Grade 5 learners could be expected to be statistically significantly lower.

6.3 SUMMARY OF MAIN RESULTS

Chapter 5 discussed the results of this study, in which multiple regression was used as a method of predicting an outcome variable from a number of predictor variables (Field 2009). Figure 6.1 (below) illustrates that three home level predictor variables and the outcome variable.
Figure 6.1: Home Level Reading Literacy Predictors

The regression analysis aimed at answering the following main research question:

- To what extent are parental attitudes and behaviours to reading associated with learner reading literacy achievement in Grade 5?

- Sub-questions asked were:
  1. How does parental involvement affect learner reading achievement based on the evidence of the PIRLS 2011?
  2. What are the implications of the PIRLS 2011 results for the South African education system?

Table 6.1 (below) provides details regarding the Multiple Regression Coefficients, with the standardised coefficients used as part of this study.

Table 6.1: Multiple Regression Coefficients

<table>
<thead>
<tr>
<th>Home Level Factor</th>
<th>Standardized coefficients</th>
<th>SE</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
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</tr>
<tr>
<td>Parental Attitudes to Reading</td>
<td>8.44</td>
<td>1.45</td>
<td>5.67</td>
</tr>
</tbody>
</table>
**Main Research question**

To what extent are parental attitudes and behaviours to reading associated with learner reading literacy achievement in Grade 5?

Considering Table 6.1, the home learning environment and parental behaviour on reading are negatively associated with learner reading achievement, if the home learning environment and parental behaviours are not part of learners’ learning experiences then learner reading achievement is expected to decrease by -4.14 and -18.23 points respectively. Parental attitudes toward reading had a positive association with learner reading achievement, and if parental attitudes are positive and present then learner achievement was expected to improve by 8.44 points. The coefficient t-values for the home learning environment, Parental behaviours to Reading and Parental Attitudes toward Reading were above 2.58, indicating statistical significance at the 0.01 level.

**Sub-questions**

1. How does parental involvement affect learner reading achievement based on the evidence of the PIRLS 2011?

   With the home level factors as an aspect of parental involvement, evidence from PIRLS 2011 shows that parental involvement does contribute to learner reading achievement. In cases in which the home learning environment and parental behaviour are at a minimum, learner reading achievement is expected to decrease. When positive parental attitudes are present, learner achievement is expected to increase.

2. What are the implications of the PIRLS 2011 results for the South African education system?

   Implications of the current study point to the important role played by primary caregivers. From a developing perspective this is an important finding, given the varied household structures in South Africa that range from two-parent families to single parent families and extended families in which support is only available through grandparents, aunts and uncles. Child-headed households are a problem and for these children the lack of parental support could be detrimental to development and future prospects.
6.4 CONCEPTUAL FRAMEWORK REFLECTION

The Conceptual Framework that underpinned this study was a Mediating Model for attitudes, behaviour and reading, presented below.

*Figure 6.2: Mediating model of attitudes, behaviours and reading*

Figure 6.2 (above) illustrates the model developed by Abu-Rabia and Yaari (2012) to “predict the relationship between parents’ attitudes toward reading, their behaviour and the learning environment that they provide, and their influence on the reading performance of their children”. It shows that the home learning environment and parental attitudes are linked and both contribute to reading achievement. Behaviours are a result of attitudes and also contribute to reading achievement.

The current study intended to view parental behaviour as an independent contributor, that is not a “result of” any other factor. PIRLS 2011 data provided data on the association of parental behaviour to reading and the expected learner reading achievement score, therefore, making it possible for parental behaviour to be an independent contributor. Figure 6.3 (below) illustrates the Developed Model of the Home Learning Environment, Parental Behaviours and Parental Attitudes to Reading, adapted from the Mediating Model of attitudes, behaviours and reading as developed by Abu-Rabia and Yaari (2012).
6.5 RESEARCH DESIGN AND METHODOLOGY REFLECTION

This study adopted a secondary data analysis design, with data from PIRLS 2011. In particular, the parent questionnaires and learner reading achievement data. The following in relation to the design and methodology of this study has been noted:

- There are other Home Level Factors that may be associated with learner reading achievement. Parents’ educational background and the resources available at home are such factors. Perhaps the developed conceptual model could have included additional predictors that may contribute to or be associated with reading achievement. The addition of these predictors could have allowed for the testing of interaction effects.
- This study utilised PIRLS 2011 parent questionnaires and learner achievement data. Perhaps it could have been beneficial for the study also to make use of PIRLS 2011 learner questionnaires. Responses from learners in the learner questionnaire could have provided validation of what the parents stated in the parent questionnaire.

- This study could have benefited from a mixed method design, in which in addition to the PIRLS 2011, interviews are conducted with the parents of current Grade 5 learners that are taught in English or Afrikaans First Language in school. This could have allowed for reporting on more current data in addition to the PIRLS data that reported on findings in 2011.

6.6 STRENGTHS AND LIMITATIONS OF STUDY

The strengths of this study lie in its secondary analysis design and the quality of the PIRLS data. As a secondary analysis, this study made use of existing data (Creswell, 2003), which means that the researcher does not need to conduct any additional field work. PIRLS data is available to the public via the IEA website.

This study utilised data from a large scale comparative assessment study, in South Africa 92 Grade 5 schools participated in PIRLS 2011. Precise developed procedures were used in the sampling process, translation phase, item contextualisation and data collection process. Amongst others, quality assurance mechanisms put into place during the PIRLS 2011 included unannounced school visits and the distributing of achievement booklets on the day of the test (Howie et al, 2012). This ensured the authenticity and quality of the PIRLS 2011 data.

This study also had limitations, particularly in relation to the South African language demographics. PIRLS 2011 data was not representative across all 11 official languages as it only reported on the reading achievement of Grade 5 learners taught in either First Language Afrikaans or English. The decision only to test Grade 5 learners in Afrikaans and English in PIRLS 2011 stemmed from the poor performance of Grade 5 African language learners. Despite these methodologically sound and justified decisions, the PIRLS 2011 data was not demographically representative of
the South African education system, and the findings from the current study may only be relevant for the sampled group.

6.8 RECOMMENDATIONS FOR POLICY, PRACTICE AND RESEARCH

This final section provides recommendations for educational policy and further research relating to parental attitudes and behaviours.

6.8.1 Recommendations for policy

Drawing from findings of the current study, the following is recommended pertaining to educational policy:

It may be necessary in the future for South African Language policy to be aligned to practice. Currently there are limited policies, apart from the Policy on Parental Involvement in School Governing Bodies (SGB) that guide the roles and responsibilities of primary caregivers. South African Language policy focuses on the right of the learner to receive basic education in the language of his or her choice, if this is possible (School Act of 1994). This is in line with the South African Constitution.

In South African schools, however, it is difficult for all 11 official languages to be offered or for children to have a choice of language in which they receive education. Depending on the location of a school, it may offer one or two of the official languages as First Languages that may or may not coincide with that of the child. Primary caregivers within that area may have no choice but to enrol their children in that specific school. What may arise from this situation is limited involvement from parents as they may be unfamiliar with the language of instruction at school. Referring to findings from the current study it is apparent that primary caregivers play an important role. In cases where parental involvement is at a minimum, achievement is expected to be at a minimum as well. South African Language policy may need to be adapted to be in line with the realities in South African schools.
6.8.3 Recommendations for research

Drawing from findings of the current study, the following is recommended pertaining to research:

- It may be necessary for further studies to be conducted on parental involvement in South Africa. During the current study it was apparent that limited literature was available on parental involvement in the country, specifically in relation to learner reading development.

- Additional studies on reading literacy across all 11 South African official languages in the primary school may be developed in the future. South Africa often participates in international or continental comparative studies, however there are limited research initiatives taken within the country aimed at evaluating and improving reading literacy.

This study concludes with a quote from Jane D. Hull, who commented on children’s success and parental involvement:

“At the end of the day, the most overwhelming key to a child’s success is the positive involvement of parents.”
REFERENCES


Arthur W. Foshay, Educational Achievements of Thirteen-Year-Olds in Twelve Countries


