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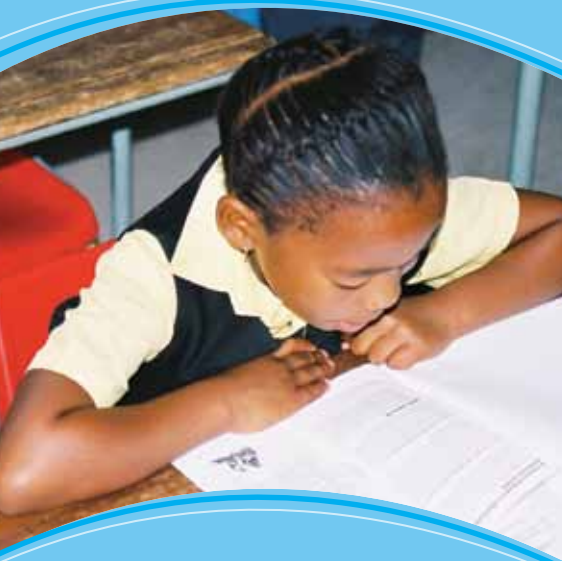
# PIRLS 2011

Progress in International Reading Literacy Study 2011

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## SOUTH AFRICAN CHILDREN'S READING LITERACY ACHIEVEMENT

### SUMMARY REPORT



Sarah Howie

Surette van Staden

Mishack Tshele

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Lisa Zimmerman

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UNIVERSITEIT VAN PRETORIA  
UNIVERSITY OF PRETORIA  
YUNIBESITHI YA PRETORIA



Centre for Evaluation & Assessment



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ZENEX Foundation and the South Africa-Netherlands Research Programme  
on Alternatives in Development



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PIRLS 2011: South African Children's Reading Literacy Achievement Report

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# PREFACE

The Progress in International Reading Literacy Study (PIRLS) 2011 is the second study for PIRLS in which South Africa has participated. Both PIRLS 2011 and PIRLS 2006 were conducted in South Africa by the Centre for Evaluation and Assessment (CEA) at the University of Pretoria, under the auspices of the International Association for the Evaluation for Educational Achievement (IEA). The PIRLS 2006 study, conducted in 11 official languages, was the largest, most ambitious and complex national design within an international comparative study yet undertaken. The PIRLS 2011 was conducted at Grade 4 level in 11 languages, using the easier assessment known as prePIRLS, and at Grade 5 level in Afrikaans or English only in the main PIRLS.

The project met the high standards set by the IEA in large part due to the input of various bodies:

From the beginning of the project, the support of the Department of Basic Education was critical. The Minister of Basic Education, Angie Motshekga gave her consent at the outset of the project, reading literacy being one of her Department's priorities. Officials in the Department assisted the CEA in obtaining the latest information from the Education Management Information System (EMIS) in order for Statistics Canada to draw up the national samples. Furthermore, vital assistance was obtained from the unit responsible for examinations and assessment, and the CEA is particularly indebted to Rufus Poliah, Qetelo Moloi and Mark Chetty for setting up a committee in the provinces to facilitate data collection. Acknowledgement must be made of the role of Evans Zwane and William Nhlengethwa together with Pieter Prinsloo and his team in Mpumalanga for directly assisting with data collection in that province.

All 341 participating prePIRLS 2011 schools and 92 PIRLS 2011 schools, principals, teachers, Grades 4 and 5 learners in schools across the country who allowed assessment to be conducted. Their co-operation was outstanding and enabled the data collection to be undertaken efficiently and effectively.

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Carole Bloch, Masennya Dikotla, Ana Ferreira, Paula Gains, Xolisa Guzula, Janet Marx, Bertus Matthee, Jerry Mojalefa, Qetelo Moloj, Sarah Murray, Salome Muthambi, William Nhlengethwa, Nkidi Phathudi, Lilli Pretorius, Pieter Prinsloo, Margie Probyn, Molefe Ralenala, Jenny Rault-Smith, Brian Wafawarowa and Evans Zwane (refer to Appendix A for details).

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It gives me pleasure to present this summary report for the South African study, which will be followed in 2013 by the main report.



Sarah Howie

Director: Centre for Evaluation and Assessment

National Research Coordinator: PIRLS 2011

11 December 2012



# EXECUTIVE SUMMARY

The aim of this report is to summarise key findings emerging from the Progress in International Reading Literacy Study (PIRLS) 2011 conducted in South Africa and in 49 countries with 325 000 students internationally in 2010 and 2011. PIRLS is the fourth in a series of international comparative studies focusing on reading literacy initiated by the International Association for the Evaluation of Educational Achievement (IEA).

All four studies focused on two purposes of reading: (1) reading for literary experience, and (2) reading to acquire and use information. The target population tested in most countries was Grade 4. In PIRLS 2011, a new assessment was initiated for countries whose performance in the previous studies had been low, and this new study (known as prePIRLS) provided learners from hitherto lower achieving countries with an opportunity to perform at a level different from those participating in PIRLS to ascertain their levels of reading literacy. In South Africa, almost 20 000 learners from more than 400 schools in Grades 4 and 5 participated in PIRLS 2011. South African learners in Grade 4 participated in prePIRLS in all 11 official languages, whilst those in Grade 5 were tested in PIRLS in English or Afrikaans

PIRLS 2011 and PIRLS 2006 were both undertaken by the Centre for Evaluation and Assessment at the University of Pretoria, which served as the National Research Centre. These studies were conducted under the auspices of the International Association for the Evaluation of Educational Achievement.

Whilst this report is only a summary of the main national report, to be released in 2013, it focuses primarily on achievement and significant factors linked internationally to the achievement in both Grades 4 and 5. This is only the first descriptive analysis of the PIRLS 2011 data which is still being analysed by the PIRLS 2011 team and will culminate in the main report, policy briefs and a number of postgraduate studies at master's and doctoral level.

## **i Key Findings**

In this report, the following key findings are summarised, followed by some initial reflections and implications. The achievement results are reported on a PIRLS scale ranging from 0 - 1 000, however most learner performance ranges from 300 to 700. The point of reference for performance is the centre point of the scale (500 points), known as the International Centre point which stays constant between assessments.

### **i.i Learner Achievement Internationally and Nationally**

Internationally, out of 45 countries assessing Grade 4 learners, the top performing countries were Hong Kong SAR, Russian Federation, Finland and Singapore. Furthermore, 10 countries raised their levels of reading achievement between 2001 and 2011. Girls continued to outperform boys internationally.

Ninety-five percent of learners internationally have received sufficient education to reach a basic level of reading (called the Low International benchmark). Some countries succeed in reaching this benchmark universally - or almost universally - such as The Netherlands with 100% of its learners reaching it and 99% of learners from Russian Federation, Finland, Hong Kong SAR, Denmark and Croatia doing so.

## **South African Grade 4 prePIRLS**

South African Grade 4 learners, particularly those tested in African languages, achieved well below the international centre point despite having written an easier assessment. They were still performing at a low level overall on an easier assessment compared to their counterparts internationally. There was a significant gender gap in achievement, with Grade 4 girls outperforming boys in South Africa schools. Learners tested in Afrikaans and English performed relatively well and above the international centre point. However, those tested in all African languages, despite most writing in their home language, achieved very low outcomes, and learners tested in Sepedi and Tshivenda were especially low. Few South African learners (6%) were able to read at an advanced level, although 71% were able to reach a rudimentary level of reading and attain the Low International benchmark. More than half the learners tested in Sepedi and Tshivenda could not read at a basic level required for successful reading.

## **South African Grade 5 PIRLS**

There was no difference in the overall achievement for South African learners in 2011 compared to 2006. Grade 5 learners tested in Afrikaans or English were still performing below the international centre point at approximately 80 points below the international average score of 500 fixed for the reading literacy of Grade 4 learners internationally. They achieved a level similar to learners in Saudi Arabia, Indonesia, Qatar, Botswana (Grade 6) and well above learners in Oman and Morocco, bearing in mind these countries' samples tested their entire population and South Africa only tested part of its population. There was a significant gender gap in achievement, with Grade 5 girls outperforming boys in South African schools. Forty-three percent of South African learners tested in Afrikaans or English were unable to reach the Low International benchmark and only four percent could reach the High International benchmark. More learners tested in Afrikaans attained the Low International benchmark than did those writing in English.

### **i.ii Supportive Home Environment Promotes Reading Literacy Achievement**

South African households have on average few resources compared to many countries in PIRLS 2011 and learners from homes that are well resourced in education terms, achieved higher reading achievement scores. Grades 4 and 5 learners who liked reading were motivated to do so and were confident readers, achieving higher scores than those who did not like reading, were not motivated to read and were not confident in their reading. Children of parents who liked reading achieved on average higher scores than those whose parents did not like reading. South African parents have exceptionally high aspirations for their children's education levels and aspire to their undertaking postgraduate education.

### **i.iii Classroom and Teacher Factors**

Most Grades 4 and 5 teachers are quite experienced with, on average 17 years of teaching experience. Almost all teachers regarded their work as important, although half reported being more enthusiastic about teaching at the onset of their career. The majority of teachers of Grade 4 and 5 learners held formal qualifications in Education, namely post-secondary college or university degrees and specifically Foundation Phase teaching. Almost a third of teachers reportedly spent less than six hours in in-service training that dealt with reading and the teaching reading, specifically in the past year.

The average prePIRLS 2011 class size is 40. Large average class sizes (>40) are found for learners who are taught in African languages, with only Afrikaans and English classes below the national average of 40. No relationship was found between instructional time and achievement in reading, possibly indicating a lack of effective teaching and learning. There is considerable variation across languages in terms of time on task for language and reading, however on average learners spent no more than 5 hours per week on reading and language. Teachers spent most of their instructional time on basic reading skills and strategies and less time on more inferential types of skills. Teaching of most reading skills and strategies (such as making generalisations, describing text style and structure, and determining the author's perspective) was introduced at a much later stage for South African learners than internationally, especially for learners tested in Xitsonga and isiNdebele. Learners exposed at an earlier grade tended to achieve higher scores in reading. Just over a third of learners at both grades had reading homework assigned once or twice a week. Another third had daily homework assignments.

Learners engaged in reading tended to achieve higher scores. Learners' lack of prerequisite skills and knowledge negatively affected instruction to some extent in most schools and was reported particularly in schools where Afrikaans and English were tested. Teachers were still experiencing problems with the provision of textbooks and learning materials and teachers reported being hampered by lack of resources. About 30% of learners were in classrooms with no classroom library or reading corner and a further 40% were in classes where there are very few books in the existing classroom library. With some exceptions, textbooks, workbooks and worksheets remain the dominant resource for both Grades 4 and 5 teachers, and few teachers use a variety of children's books as a basis for instruction.

#### **i.iv Under-Resourced Schools hampering Effective Reading**

Almost half of the Grade 4 learners came from schools in remote rural areas and achieved more than 100 points less than their urban peers. However, learners in schools in which a very high emphasis was placed on academic expectations by the principals and teachers achieved much higher scores than those in schools with lower expectations. More than half of the learners in the Grade 4 sample came from schools with no school libraries and these schools achieved on average, 155 points less than schools with well-resourced libraries. One in five learners attended a school where the inadequacy of the resources was reported to be hampering teaching and learning. However, there were countries where significantly more learners were negatively affected and where almost four out of five learners were affected in this way. Learners in schools where teaching and learning is negatively affected by shortages of reading resources achieved over 100 points less than schools that were not affected by shortages. Almost half of the learners were in schools where there were moderate problems with teachers' working conditions. Learners in schools where teachers had hardly any problems with their conditions achieved between 60-95 points more than those learners, whose teachers had moderate problems.

More than half of the learners in Grade 4 experienced being bullied weekly, which is substantially different from all the other countries in the study. These children on average, tended to achieve more than 50 points fewer than learners who were not bullied as often. Children who were frequently bullied tended to be in rural or township environments, in large classes and from low socio-economic home backgrounds.

## ii Initial Reflections

There is a direct alignment of the purposes of the PIRLS assessment and the assessment standards reflected in the *Revised National Curriculum Statement (RNCS)* (DoE, 2002a, 2002b, 2002c) which was in place at the time of the testing for prePIRLS and PIRLS 2011. The Grades 4 and 5 curricula are assessed directly by the PIRLS assessment and therefore achievement could have been higher. As also revealed by PIRLS 2006, there continues to be a need to interrogate the quality of reading instruction in schools whilst attending to the *Language in Education Policy* (DoE, 1997) and its impact on learners' reading.

The results highlight the important role of the school in compensating for minimal home opportunities offered to children from low socio-economic backgrounds. A strong link was found between reading achievement and home environments for almost every country in the PIRLS 2011 study. Factors such as parents having high regard for reading impact on learner results, children's enjoyment, confidence and motivation seem to be important factors for success in reading.

Schools can only compensate for social backgrounds of children if they are adequately to well resourced and well managed. PIRLS 2011 reveals strong negative relationships to achievement where schools are not well managed, or well resourced. Bullying emerged as a key factor and South Africa has one of the highest percentages of learners frequently being bullied. Shortages of reading resources and lack of infrastructure, such as school libraries and poor working conditions, are strongly associated with poor achievement. South Africa had one of the lowest levels of library provision amongst all the countries participating, including systems which are economically more impoverished. The urban-rural divide is very visible in PIRLS 2011 and urban and suburban schools are achieving much higher scores than those in rural areas, possibly contributing to families migrating to urban areas in search of better education.

Whilst the country is in search of equity, and there appears to be some movement and improvement in the Grade 5 data amongst the lowest achieving learners, there is a drop in the percentage of female learners attaining the high and advanced levels of reading achievement. Whilst the agenda for attaining equity in the schools is paramount, South Africa needs to ensure that its pockets of excellence are encouraged to achieve higher performance levels. Currently, sites of excellence are under strain in the public system, with growing pressure to increase their class sizes, increasing diversity of learners' background and abilities within classes, and stretched resources. With data revealing some possible risk of decreasing performance of the top end, this has to be addressed urgently.

South African learners' performance in the PIRLS assessments reinforces the need for reading instruction practices that address the difficulties in language and reading in both the Foundation and Intermediate Phases. Unless children are fully functional in the language of teaching and learning they are at considerable risk of failure or repeated failure in primary school and dropping out of school at secondary level. Therefore, the continued and close monitoring of reading literacy in all the languages in which it is offered, is critical for the successful development of all individuals in the schooling and training systems, and it needs to remain one of South Africa's priorities in the immediate future.

# CHAPTER 1

## BACKGROUND

The aim of this report is to summarise key findings emerging from the Progress in International Reading Literacy Study (PIRLS) 2011 conducted in South Africa and in 49 countries with 325 000 students internationally in 2010 and 2011. PIRLS is the fourth in a series of international comparative studies focusing on reading literacy initiated by the International Association for the Evaluation of Educational Achievement (IEA). The first international comparative reading literacy study, with 32 participating education systems, was conducted in 1991. However, PIRLS 2011 is the third in a series of trend studies that began 10 years later, in 2001, with 35 countries participating. Participation in PIRLS 2011 enabled countries that took part in 2001 and 2006 to identify long-term trends and to monitor their system's developments in reading and education over an extended time.

All four studies focused on two purposes of reading: (1) reading for literary experience, and (2) reading to acquire and use information. The target population tested in most countries was Grade 4, though in a few, where there were particular educational circumstances, Grades 5 and 6 were tested in addition to or in place of Grade 4. In PIRLS 2011, a new assessment was initiated for countries whose performance in the previous studies had been low, and this new study (known as prePIRLS) provided learners from hitherto lower achieving countries with an opportunity to perform at a different level from those participating in PIRLS. South African learners in Grade 4 participated in prePIRLS in all 11 official languages, whilst those in Grade 5 participated in PIRLS in English and Afrikaans only.

This chapter provides an overview of the study within the South African education landscape, as well as the language profile of the country's population. Furthermore, it highlights some of the national education initiatives that have been undertaken since PIRLS 2006 and provides a summary of the PIRLS international research design.

### 1.1 The South African Education Landscape

At the end of the 20<sup>th</sup> century, the then Minister of Education, Dr Kader Asmal wrote, "140 million people in sub-Saharan Africa cannot read or write" (Asmal, 1999, p.1), a figure that appeared overwhelming in its scale and highlighted the inordinate lengths to which the continent would have to go to reduce illiteracy rates. Almost 12 years later, illiteracy still tops the education agenda in Africa and the number of illiterate adults has grown to 167 million, representing 48% of the total. However, amongst several countries that have demonstrated that it is possible to accelerate trends in literacy through effective policies, Burundi, Egypt, Malawi and Yemen have all increased literacy rates by over 20 percentage points in the past 15 to 20 years (EFA Global Monitoring Report, 2011, p.66).

"Getting children into school is a necessary but insufficient condition for achieving the *Education for All Goals*. The experience of school, what children learn in the classroom and the skills that they emerge with are what ultimately count" (EFA Global Monitoring Report, 2011, p.83), and reading is the quintessential skill required. Without it, learners are doomed to struggle through school and drop out when they are unable to master it adequately.

South Africa faces the challenge of providing quality education for its multicultural society of approximately 51.7 million people (Statistics SA, Census 2011); however, “3.5 million adults over the age of 16 have never attended school and at least another 2.5 million have stayed a few years in school but through lack of practice can no longer remember how to read and write” (Asmal, 1999, p.1). Much of this is directly attributable to the decades of apartheid policies, and the *Census 2011* results show that 8.6% of the population are still without formal education. However, on a more positive note, 28.4% of the population have completed Grade 12, compared to only 20.4% in 2001,<sup>1</sup> and school enrolment has increased since 1996. For example, despite disparities between the population groups there has been an increase in net enrolment among Black Africans from 70.7% in 1996 to 74.5% in 2011.<sup>2</sup>

The Department of Basic Education (DBE)<sup>3</sup> oversees the South African schooling system, and under the *South African Schools Act of 1996*, schooling is compulsory between the ages seven and 15. Most primary schools comprise Grades 1–7 (ages 7–13), and secondary schools Grades 8–12 (ages 14–18). However, in some provinces middle schools accommodate Grades 7–9, whilst in some isolated areas lower-primary schools, it is Grades 1–3 only. Pre-primary education is available for three years but most children only attend one year due to cost and access issues. This is set to change as of 2012, with the DBE aiming to include all children in a Grade R (Reception Year) programme before entering Grade 1, and to make this compulsory. The structure of schooling provision is presented in Table 1.1.

**Table 1.1: Structure of Compulsory Education in South Africa, up to 2011**

| Phase               | Grades   | Ages  | Status of education | School level               |
|---------------------|--|-------|---------------------|----------------------------|
| <b>Pre-primary</b>  | 000, 00, 0 (also called Reception Year or Grade R) | 4-6   | Not compulsory      | Pre-primary                |
| <b>Foundation</b>   | 1-3  | 7-9   | Compulsory          | Primary                    |
| <b>Intermediate</b> | 4-6  | 10-12 | Compulsory          | Primary                    |
|                     |  |       |                     | Primary (to Grade 7)       |
| <b>Senior</b>       | 7-9  | 13-15 | Compulsory          | Secondary (Grades 8 and 9) |

Figures from 2009 reveal that there are 25 906 schools in the country with 12 227 963 learners and 413 067 educators (see Table 1.2, below). At the primary level almost 6 million learners attend more than 14 000 schools. In addition, there are 386 098 learners taught by 24 557 teachers in 1 174 independent schools (Government Communications and Information System, 2012).

1. <http://www.education.gov.za/Newsroom/Speeches/tabid/298/ctl/Details/mid/1929/ItemID/3532/Default.aspx>

2. <http://www.info.gov.za/speech/DynamicAction?pageid=461&sid=31853&tid=88842>

3. In 2009, the Department of Basic Education was created separate from the Department of Higher Education.



**Table 1.2: Number of Learners, Educators and Government and Independent Schools by Classification In 2009**

| School Classification | Learners   | Educators | Schools |
|-----------------------|------------|-----------|---------|
| <b>Primary</b>        | 5 851 605  | 181 805   | 14 380  |
| <b>Secondary</b>      | 3 856 946  | 141 841   | 6 304   |
| <b>Combined</b>       | 2 158 052  | 71 035    | 4 611   |
| <b>Intermediate</b>   | 361 360    | 18 386    | 611     |
| <b>Total</b>          | 12 227 963 | 413 067   | 25 906  |

Source: Department of Basic Education, Education Statistics, 2009

*Schooling 2025* (DBE, 2012) outlines the long-term vision of the DBE, but in the shorter term, the Department has embarked on a five-year plan to improve schooling in South Africa, namely an *Action Plan to 2014* which proposes 27 national goals in the vision for education. At the centre of the plan are the core “three Ts” of schooling, namely textbooks, teachers and time. In addition, workbooks have been included as additional resources: “They serve as a kind of textbook to learners; they assist teachers in teaching content knowledge; monitor the tasks that learners do in the workbooks, and promote effective and efficient use of teaching time.”<sup>4</sup>

In 2009/10, almost 18% of total government expenditure was on education, of which 68.4% was allocated to schooling.<sup>5</sup> This is considered appropriate in a partly developing country such as South Africa, where there is a pressing need for improving education quality and supplying skills to drive economic growth and broader development (DBE, 2011d). Education, followed by social assistance and health, remains the largest category of expenditure and the government is focusing on investment in people as the centre of its growth and development strategy.

In 2012, the Finance Minister announced that spending on education was projected to grow from R207 billion in 2012/13 to R236 billion in 2014/15. Furthermore, there were to be additional allocations of R18.8 billion in the medium term, including “learner subsidies for no-fee schools and to accommodate plans for universal access to Grade R. An amount of R235 million has also been added for a three-year spending period to extend the national assessments system. An additional R850 million is allocated to improve university infrastructure, including student accommodation facilities.”<sup>6</sup> In 2012, the Minister of Education also announced a specific plan to spend R8.2 billion to accelerate school infrastructural development. Over three years, the plan is to “eradicate 496 inappropriate structures, provide water to 1 257 schools, electricity to 878 schools, and basic sanitation to 868 schools.”

4. Address to the Consultative Conference of the National Association of School Governing Bodies (NASGBs) by Angie Motshekga, Minister of Basic Education, Johannesburg, 3 November 2013. <http://www.education.gov.za/Newsroom/Speeches/tabid/298/ctl/Details/mid/1929/ItemID/3532/Default.aspx>

5. South African Country Report: Progress on the Implementation of the Regional Education and Training Plan (integrating the Second Decade of Education in Africa and Protocol on Education and Training) SADC and COMEDAF V May 2011.

6. Budget Speech by Minister of Finance Pravin Gordhan 22 February 2012. <http://www.info.gov.za/speech/DynamicAction?pageid=461&sid=25270&tid=57402>

The curriculum has been through various phases of reform since 1994. In one, the *National Curriculum for Grades R-9* (known commonly as *Curriculum 2005*) was approved in September 1997 as three separate policy documents for the Foundation Phase, the Intermediate Phase and the Senior Phase. The curriculum was revised during 2001 and released as the *Revised National Curriculum Statement (RNCS) Grades R-9 (schools)* in 2002. This RNCS is the curriculum with which learners who wrote PIRLS/prePIRLS 2011 would have been busy, and to which teachers and principals responding to the questionnaires would refer.

A further revision of the curriculum took place in 2010-2011 for gradual implementation from 2012 onwards; specific reference to languages and reading is presented in Chapter 2. Although the *National Curriculum Statement for Grades R-12* and curriculum change would not affect the PIRLS results directly, note must be taken of the *National Curriculum Statement for Grades R-12* in order to put the results into a clearer perspective. This is known as the *National Curriculum Statement for Grades R-12 (DBE, 2011)* (the policy statement for teaching learning in South African schools), and is being implemented in phases. It comprises:

- *Curriculum and Assessment Policy Statement (Grades R – 12) (DBE, 2011a) (CAPS)* for each approved school subject as listed in the policy document and the National Senior Certificate: A qualification at Level 4 on the National Qualifications Framework (NQF).
- *National Policy pertaining to the programme and promotion requirements of the NCS, Gr R-12 (DBE, 2011b).*
- *National Protocol for Assessment, Grades R-12 (DBE, 2011c).*

The *Curriculum and Assessment Policy Statement (CAPS)* was implemented this year in Grades 1-3 and 10, including new textbooks and workbooks, one intention being to have a book for each child in each subject. As from 2013, the curriculum implementation will target Grades 4-6 and 11.<sup>7</sup> In the newly implemented curriculum in the Foundation Phase there are three Learning Programmes: Literacy, Numeracy and Life Skills. In the Intermediate Phase (including Grade 4), Languages and Mathematics are distinct Learning Programmes, and the prescribed outcomes for each learning area must be covered effectively and comprehensively. Schools may decide on the number and nature of other Learning Programmes based on the organisational imperatives of the school, provided that the national priorities and developmental needs of learners in a phase are taken into account.

In addition to the curriculum changes that have occurred, new monitoring and evaluation measures were also introduced. In February 2010, President Jacob Zuma announced new measures in an attempt to boost the country's education system. Since 2010, all learners in Grades 3 and 6, and a sample in Grade 9 have written *Annual National Assessments (ANAs)*<sup>8</sup> that are independently moderated, with more than 19 000 schools participating nationally in 2011. Widespread criticism of the content and level of the ANAs has been levelled at the Department, though testing of this nature is still in its infancy and currently underfunded. However, there are strategies underway to expand the capacity and investment in ANAs.

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7. Address to the Consultative Conference of the National Association of School Governing Bodies (NASGBs) by Angie Motshekga, Minister of Basic Education, Johannesburg, 3 November 2013. <http://www.education.gov.za/Newsroom/Speeches/tabid/298/ctl/Details/mid/1929/ItemID/3532/Default.aspx>

8. Prior to ANAs being implemented, a number of systemic evaluations took place after 2000 in Grades 3, 6 and 9.

Apart from national efforts to monitor learner progress in reading, teachers are encouraged to report progress on learning outcomes regularly to learners and parents. Subject record sheets, which include the topic area assessed, are used to record the performance of learners. A combination of marks, codes and comments is used for both recording and reporting purposes. Up to 2011, a four-point scale was used for recording learner performance,<sup>9</sup> but as from 2012, as part of the new description of assessments in CAPS, it will be a seven-point scale.

In addition to developments already mentioned, a range of initiatives aimed at improving both access to and quality of education, especially for the poor and disadvantaged, have been undertaken in the last six years (see SACMEQ, 2011) by the Department of Education (DoE),<sup>10</sup> namely:

- Introducing no-fee schools: In 2006, the Minister of Education declared all schools in the lowest two quintiles (i.e., schools with the poorest 40% of learners as measured by the socio-economic conditions of the surrounding communities), as 'no-fee schools'. This policy was extended to schools in the third quintile in 2009 (DoE, 2006).
- Improving rural schooling: *A National Framework for Quality Education in Rural Areas* focused on improving the quality of teaching and learning in rural and farm schools (DoE, 2006b).
- Addressing backlogs in school infrastructure: The *Accelerated Schools Infrastructure Delivery Initiative* (ASSIDI) programme was introduced by the DBE to focus on building new schools and renovating existing ones.
- Improving access to curriculum materials: Interventions aimed at improving educational quality in schools, especially literacy, included:
  - The *Quality Improvement, Development Support and Upliftment Programme* (QIDS-UP), started in 2005. This focused mainly on the provision of resources to support learning and teaching and improve learner competencies in literacy and numeracy.
  - The *Foundations for Learning Campaign* (DoE, 2008a), which the Minister of Education, at its launch, said "is a call to schools and communities to focus on reading, writing and calculating."
  - The *National Reading Strategy* (DoE, 2008b), which focused on increased access to books and providing support to teachers through resources and techniques to promote a love of reading.

## 1.2 Background to the PIRLS 2011 Project in South Africa

The Progress in International Reading Literacy Study (PIRLS) 2011 is the third in a series of international comparative trend studies focusing on reading literacy. One of the largest international reading literacy assessments of its kind, it is directed by the TIMSS and PIRLS International Study Centre at Boston College in the USA, and is conducted under the auspices of the International Association for the Evaluation of Educational Achievement (IEA) with its headquarters in Amsterdam, The Netherlands.

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9. For this, the DoE specified the following rating codes and percentages for Grades R to 6: Code 4 - Outstanding or Excellent (70-100%); Code 3 - Satisfactory (50-69%); Code 2 - Partial Achievement (35-49%); and Code 1 - Not Achieved (1-34%).

10. SACMEQ Policy brief: The Quality of Primary School Inputs in South Africa, Number 2 (September 2011).

South Africa had participated in the Progress in International Reading Literacy Study 2006 (PIRLS 2006) together with 40 other countries and 45 education systems.<sup>11</sup> Internationally, 215 000 Grade 4 students were surveyed across 40 countries, including 26 that had participated in the previous study, in 2001. PIRLS 2006 South Africa represented the first, most significant and comprehensive baseline study of reading literacy in South African primary schools, across all 11 languages, and included international comparative data and benchmarks. It was the largest, most ambitious and complex national study yet undertaken within an international comparative study. South Africa had the largest number of learners in the international study, with 16 057 Grade 4 and 14 657 Grade 5 learners tested, across 432 and 398 schools respectively.

In the PIRLS 2006 study, learners from South Africa achieved the lowest scores of the 40 countries, with approximately 80% failing to reach the Low International benchmark, meaning that they had not mastered basic reading skills. This was in contrast to only 6% of children internationally who did not reach the Low International benchmark. However, 2% of South African Grade 5 learners reached the Advanced International benchmark compared to 7% internationally, while children in six other countries (although notably Grade 4 learners) failed to do so.

PIRLS 2011 represented a good opportunity to follow up on the valuable information obtained in PIRLS 2006. The very low achievement of both the Grade 4 and 5 South African learners relative to the other countries meant that changes were needed to retain the value of participating in such an international study. In particular, the very low performance of the learners writing in the African languages (at both grade levels) and the difficulty in obtaining an accurate measurement, in particular for these learners, meant that an alternative assessment needed to be sought in 2011. A new opportunity presented itself in PIRLS 2011 when the IEA decided to offer a new assessment for countries whose performance in the previous studies had been low. This new study, prePIRLS, was designed to be shorter, easier and simpler, and permitted learners from lower achieving countries to be measured more precisely than was the case on a more difficult and longer assessment such as PIRLS. Whilst a number of countries took up this initiative, the so-called “Arab Spring” had a negative effect on Egypt, Libya and Bahrain, and ultimately prevented them from participating. South Africa, together with Botswana and Colombia, took part in prePIRLS, all at Grade 4 level, and, in order to retain some trend measure, participated at Grade 5 level in PIRLS, only in Afrikaans and English. Internationally, most countries participated in PIRLS at the Grade 4 level, with a few exceptions deciding to participate at Grade 6 level.

The PIRLS 2011 project was managed in South Africa by the Centre for Evaluation and Assessment (CEA), at the University of Pretoria, which had also coordinated PIRLS 2006 since 2004 as part of its Reading Literacy Research Programme. Permission was received from the Minister of Education, and the Heads of Education Departments Committee (HEDCOM) to conduct the study. Funding was acquired from the National Research Foundation, Zenex Foundation and SANPAD to proceed formally with the study. The main study, comprising 341 schools for prePIRLS, 92 schools for PIRLS, and 19 259 learners (15 744 for prePIRLS and 3 515 for PIRLS), was conducted in October and November 2011. The testing of the learners took place in all 11 official languages at Grade 4, and in Afrikaans and English at Grade 5 only. Contextual questionnaires were completed by learners, parents, teachers and principals. The data<sup>12</sup> was captured, cleaned and submitted to the International Data Processing

11. Reference is made to education systems in which regions of Belgium (French), Belgium (Flemish), and provinces of Canada (Alberta), Canada (Colombia) and Canada (Nova Scotia) participated.

12. Although ‘data’ is the Latin plural of datum it is generally treated as an uncountable ‘mass’ noun and so takes a singular verb (Concise Oxford English Dictionary, 2011, Eds. Stevenson & Waite).

Centre in Hamburg, Germany in early 2012. The final batch of international data was received by the South African researchers in mid-September 2012, when it was analysed. A series of publications is currently underway.

### 1.3 Overview of the International Research Design for PIRLS 2011

In PIRLS 2011 (and prePIRLS), reading literacy is defined as:

*...the ability to understand and use those written language forms required by society and/or valued by the individual. Young readers can construct meaning from a variety of texts. They read to learn, to participate in communities of readers in school and everyday life, and for enjoyment (Mullis, Martin, Kennedy, Trong & Sainsbury, 2009, p.11).*

As such, it is recognised that a child's reading literacy develops within a specific context, recognised by the PIRLS 2011 conceptual framework as representing the relationship between the national and the community reading literacy contexts, as well as an interaction between the home and the school contexts within which children's reading behaviour and attitudes develop. The reading outcomes are a result of these relationships and in turn, have an effect on the national context. This home-school context lies within specific community and national contexts. The design of the study takes into account that reading literacy develops and may be enhanced because of these relationships.

As mentioned above, a new assessment was initiated for countries whose performance in the previous studies had been low. prePIRLS permitted learners from lower achieving countries the opportunity to perform at a different level to those participating in PIRLS. prePIRLS was intended to meet the needs of the increasing number of developing countries wanting to participate in PIRLS 2011 (Mullis, Martin, Foy & Drucker, 2012). Vocabulary is simpler than that used in PIRLS 2011, the texts are easier, shorter in length and have simpler grammar and syntax, placing less emphasis on higher-order reading skills. The tests are designed to assess basic reading skills required to succeed in PIRLS and therefore have the same approach to reading comprehension as PIRLS (Mullis et al., 2012).

The requirement of PIRLS 2011 was that "(t)he target grade should be the grade that represents four years of schooling, continuing from the first year of ISCED Level 1" (Mullis et al., 2006, p.7). All participating countries, therefore, included one study population based on this criterion. The South African sample for Grade 4 in prePIRLS was particularly large as it had to be representative across 11 language groups. The Grade 5 sample in PIRLS was much smaller, as it only included learners in schools in which the Language of Learning and Teaching (LoLT) in Grades 1-3 was Afrikaans and/or English.

Assessment instruments and background questionnaires were administered to collect the data. The reading assessment instruments included Grade 4-level stories and informational texts. Processes of comprehension and purposes for reading form the basis of the written test used in prePIRLS and PIRLS 2011 for reading comprehension. Background questionnaires administered to principals, teachers, parents and learners addressed the third purpose of PIRLS 2011, namely collecting information about reading behaviour and attitudes. All the PIRLS 2011 instruments were developed and prepared in English by two international committees working with the International Study Centre (ISC) at Boston College, USA, and with contributions from the National Research Coordinators (NRCs) of participating countries.

Several quality control checkpoints were put in place to ensure the highest data quality. The IEA provided documentation with requirements for preparation of the reading passages and the questionnaires, as well as for the administration of the study to ensure standardised procedures across all the education systems. An International Quality Control Manager was appointed to act as an external, objective observer of the process in each country. It was also the responsibility of each National Research Centre to appoint National Quality Control Officials. The IEA made available a data-capturing program, *WinDEM*, to capture and verify the data. All data recordings and national adaptations of international variables were recorded in the National Adaptation forms and submitted to the Data Processing Center (DPC). The DPC subsequently performed more consistency checks and the final data was released during September 2012.

A detailed description of the international research design and methods used is included in Chapter 3, as well as a discussion of the design and adaptations for the South African context.

## 1.4 Structure of the Report

This report highlights the findings from the PIRLS and prePIRLS studies that took place in 2011. Chapter 1 has provided an introduction to the South African context in education broadly as well as to the PIRLS and prePIRLS studies. The language policy and curricula for language are discussed in Chapter 2. Chapter 3 provides an overview of the research design and methods for PIRLS and prePIRLS. The overall findings in reading literacy are given in Chapter 4, whilst the benchmarks attained by the learners in both studies are described in Chapter 5. Chapter 6 outlines the home environment and support provided to the learners as well as the learners' attitudes to reading, their self-concept and self-confidence. The school climate, curriculum and organisation for reading are discussed in Chapter 7. Chapter 8 describes the classroom environment, characteristics of the teachers, as well as instructional and resource factors for reading. This report is concluded in Chapter 9 with some conclusions and reflections.

## CHAPTER 2

# LANGUAGE AND LITERACY IN SOUTH AFRICAN SCHOOLS

The Interim Constitution in 1993 recognised 11 official spoken languages, prior to which English and Afrikaans had been the only two official languages in the country. The most commonly spoken language in South Africa is isiZulu, spoken by more than one out of four people (Statistics SA, Census 2011). South Africa faces the challenge of implementing the constitutional rights of the people regarding their language preferences, whilst simultaneously dealing with the historical and current realities on the ground.

In this chapter, the language profile for the country is first described, followed by a summary of the language policy for the *Language in Education Policy* (LiEP) (DoE, 1997). A description is then given of the language and reading curricula in the Foundation and Intermediate Phases in primary schools up to 2011, when the learners were tested. Thereafter, the Curriculum and Assessment Statement for Language is outlined, followed by the reading policy as of 2012. The chapter concludes with a reflection on the impact that PIRLS 2006 has had nationally and some of the interventions that followed the release of the previous PIRLS study.

### 2.1 Language Profiles in South Africa

Of the 11 officially recognised languages, English is spoken as a first language by only 9.6% of the population, yet it is the language of business and government. It is also one of two languages officially used at schools from the Intermediate Phase onwards, although it is not the most widely spoken one at home (see Table 2.1). As a result, the issue around the language policy for teaching and learning has become a sensitive and controversial one in South Africa, and given its history, perhaps more so than in many other African countries (Howie, 2002).

The most commonly spoken language at home (see Table 2.1) is isiZulu, spoken by almost 23% of the population. This is followed by isiXhosa (16%) and Afrikaans (13.5%). The smallest official language group is isiNdebele, spoken by a mere 2.1%.

**Table 2.1: Language Profile of South Africans - First Language Spoken at Home 2001-2011**

| Year | % of Population |         |            |          |         |        |         |          |         |           |          |       |
|------|-----------------|---------|------------|----------|---------|--------|---------|----------|---------|-----------|----------|-------|
|      | Afrikaans       | English | isiNdebele | isiXhosa | isiZulu | Sepedi | Sesotho | Setswana | siSwati | Tshivenda | Xitsonga | Other |
| 2001 | 13.3            | 8.2     | 1.6        | 17.6     | 23.8    | 9.4    | 7.9     | 8.2      | 2.7     | 2.3       | 4.4      | 0.5   |
| 2011 | 13.5            | 9.6     | 2.1        | 16.0     | 22.7    | 9.1    | 7.6     | 8.0      | 2.5     | 2.4       | 4.5      | 1.6   |

Note: a further 0.5% use sign language

Source: Statistics SA, Census 2011

The patterns of language usage reveal a strong relationship to location and province, so isiXhosa is dominant in the Eastern Cape and isiZulu in KwaZulu-Natal and Gauteng. Afrikaans is the most commonly spoken home language in the Northern and Western Cape, the Sotho group of languages in the Free State (Sesotho), Limpopo (Sepedi), and North-West (Setswana), and siSwati in Mpumalanga. There are also significant numbers of people speaking some or all of the languages in other provinces, but Table 2.2 indicates only the most dominant in each.

**Table 2.2: Most Commonly Spoken Language at Home per Province**

| Eastern Cape |          | Free State |          | Gauteng  |          | KwaZulu-Natal |          | Limpopo  |          | Mpumalanga |          | North West |          | Northern Cape |          | Western Cape |          |
|--------------|----------|------------|----------|----------|----------|---------------|----------|----------|----------|------------|----------|------------|----------|---------------|----------|--------------|----------|
| Language     | % of pop | Language   | % of pop | Language | % of pop | Language      | % of pop | Language | % of pop | Language   | % of pop | Language   | % of pop | Language      | % of pop | Language     | % of pop |
| Xho          | 79       | Ses        | 64       | Zul      | 20       | Zul           | 78       | Sep      | 53       | siS        | 28       | Set        | 63       | Afr           | 54       | Afr          | 50       |

Source: Statistics SA, Census data 2011. Note, the percentages are rounded off

Key: Afr – Afrikaans, Sep- Sepedi, Ses- Sesotho, Set – Setswana, siS- siSwati, Xho- isiXhosa, Zul – isiZulu

## 2.2 Language in Education Policy

The *Language in Education Policy* was published in 1997, and clarified in the *Revised National Curriculum Statement (NCS)* of 2002 (DoE, 2002a). The underlying principle of the policy is to keep the use of home language as the language of learning and teaching (especially in the early years of learning), while providing access to an additional language(s). The language policy for schools is guided by principles derived from the *Constitution of the Republic of South Africa* (RSA, 1996a) and the *South African Schools Act (SASA)* (RSA, 1996b), and the Constitution recognises the 11 official languages listed in Tables 2.1 and 2.3.

Despite the constitutional basis for the policy, the issue of using first language (also known as the learners home language or mother tongue) as a medium of instruction does not appear to have been resolved consistently across schools or with stakeholders. The latest figures available on the implementation of the policy indicate that in 2007, the largest group of Grade 3 learners had English as the language of learning and teaching (LoLT), followed by isiZulu (see Table 2.3). The proportion of Grade 3 learners learning via the medium of English was higher than for either Grades 1 or 2 learners. While 22% of Grade 1 learners learnt via the medium of English in 2007, the corresponding figures for Grades 2 and 3 learners were 24% and 28% respectively.



**Table 2.3: Percentage of Grade 3 Learners by Language of Learning and Teaching: 1998 to 2007**

| LoLT              | Percentage of Learners by Year |      |      |      |      |      |      |      |      |      |
|-------------------|--------------------------------|------|------|------|------|------|------|------|------|------|
|                   | 1998                           | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
| <b>Afrikaans</b>  | 6.7                            | 7.3  | 10.0 | 8.1  | 10.4 | 9.9  | 9.4  | 9.3  | 8.4  | 9.9  |
| <b>English</b>    | 40.9                           | 40.6 | 36.0 | 36.5 | 44.7 | 38.1 | 35.5 | 33.3 | 29.1 | 27.7 |
| <b>isiNdebele</b> | 1.0                            | 0.5  | 0.2  | 0.7  | 0.6  | 0.6  | 0.5  | 0.7  | 0.7  | 0.8  |
| <b>isiXhosa</b>   | 10.9                           | 12.5 | 28.2 | 21.4 | 10.1 | 12.7 | 12.4 | 12.6 | 12.2 | 14.0 |
| <b>isiZulu</b>    | 12.9                           | 14.5 | 10.7 | 12.9 | 10.3 | 16.8 | 19.2 | 20.1 | 20.0 | 20.1 |
| <b>Sepedi</b>     | 8.0                            | 6.3  | 1.4  | 5.3  | 6.1  | 5.8  | 6.6  | 6.9  | 10.2 | 9.2  |
| <b>Sesotho</b>    | 5.0                            | 5.8  | 5.0  | 5.3  | 6.0  | 4.8  | 4.7  | 4.6  | 4.8  | 4.4  |
| <b>Setswana</b>   | 9.4                            | 9.1  | 6.8  | 5.0  | 7.1  | 6.5  | 6.8  | 6.7  | 7.1  | 6.8  |
| <b>siSwati</b>    | 0.0                            | 0.6  | 0.5  | 0.7  | 0.7  | 0.7  | 0.8  | 1.3  | 1.5  | 1.7  |
| <b>Tshivenda</b>  | 1.9                            | 0.4  | 0.1  | 1.6  | 1.5  | 2.0  | 1.8  | 1.8  | 2.4  | 2.4  |
| <b>Xitsonga</b>   | 3.1                            | 2.4  | 0.5  | 2.4  | 2.6  | 2.1  | 2.4  | 2.6  | 3.4  | 3.1  |
| <b>Total</b>      | 100                            | 100  | 100  | 100  | 100  | 100  | 100  | 100  | 100  | 100  |

Source: DBE, LoLT Report, 2010

From 1998 to 2007, the percentage of Grade 3 learners whose LoLT was English, decreased markedly, whereas those learning in the medium of Afrikaans, isiZulu and isiXhosa, increased.

It is clear that from Grade 4 onwards (see Table 2.4), about 80% of the learners have English as their LoLT. The Department of Basic Education’s report on the Language of Learning and Teaching indicated that 76% of African learners were learning in their home languages in the Foundation Phase in 2007, representing an increase over 1998 but leaving almost 25% who were still not doing so.

**Table 2.4: Percentage of Learners by Language of Learning and Teaching and Grade: 2007**

| LoLT         | Grade 1 | Grade 2 | Grade 3 | Grade 4 | Grade 5 | Grade 6 | Grade 7 | Grade 8 | Grade 9 | Grade 10 | Grade 11 | Grade 12 | South Africa |
|--------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|--------------|
| <b>Afrik</b> | 9.5     | 9.6     | 9.9     | 12.3    | 12.2    | 12.2    | 13.2    | 13.1    | 14.0    | 12.7     | 12.1     | 12.8     | 11.9         |
| <b>Eng</b>   | 21.8    | 23.8    | 27.7    | 79.1    | 81.1    | 81.6    | 80.6    | 80.9    | 80.0    | 81.2     | 82.0     | 81.4     | 65.3         |
| <b>Nde</b>   | 0.7     | 0.8     | 0.8     | 0.3     | 0.3     | 0.3     | 0.3     | 0.1     | 0.1     | 0.1      | 0.1      | 0.1      | 0.4          |
| <b>Xho</b>   | 16.5    | 15.0    | 14.0    | 3.1     | 2.5     | 2.0     | 1.9     | 1.6     | 1.4     | 1.3      | 1.2      | 1.5      | 5.5          |
| <b>Zul</b>   | 23.4    | 21.7    | 20.1    | 1.5     | 1.0     | 1.0     | 1.0     | 1.1     | 1.1     | 1.1      | 1.1      | 1.1      | 6.8          |
| <b>Sep</b>   | 8.3     | 9.1     | 9.2     | 1.1     | 0.9     | 0.9     | 0.9     | 0.9     | 0.9     | 1.0      | 1.0      | 1.0      | 3.1          |
| <b>Ses</b>   | 4.7     | 4.8     | 4.4     | 0.5     | 0.4     | 0.3     | 0.4     | 0.4     | 0.5     | 0.5      | 0.4      | 0.3      | 1.6          |
| <b>Set</b>   | 7.5     | 7.4     | 6.8     | 0.6     | 0.5     | 0.5     | 0.6     | 0.6     | 0.7     | 0.6      | 0.5      | 0.3      | 2.4          |
| <b>siS</b>   | 2.1     | 2.1     | 1.7     | 0.4     | 0.3     | 0.3     | 0.3     | 0.1     | 0.1     | 0.1      | 0.1      | 0.1      | 0.7          |
| <b>Tsh</b>   | 2.2     | 2.4     | 2.4     | 0.3     | 0.2     | 0.2     | 0.2     | 0.4     | 0.5     | 0.5      | 0.6      | 0.5      | 0.9          |
| <b>Xit</b>   | 3.1     | 3.3     | 3.1     | 0.7     | 0.6     | 0.6     | 0.6     | 0.7     | 0.7     | 0.8      | 0.8      | 0.8      | 1.4          |

Source: DBE, LoLT Report, 2010

Key: Afr – Afrikaans, Eng - English, Nde - isiNdebele, Sep- Sepedi, Ses- Sesotho, Set – Setswana, siS- siSwati, Tsh- Tshivenda Xho- isiXhosa, Zul – isiZulu

The DoE's *Language in Education Policy* recommends that, wherever possible, the learner's first language be used for teaching and learning, especially in the Foundation Phase (Grades R–3) (DoE, 1997), showing that a policy of multilingual education underpins the country's education philosophy. Up until 2011, all learners from Grade 3 onwards, were expected to have one additional approved language as a subject; however, in 2012 this changed with the introduction of the *Curriculum Assessment Policy Statement (CAPS)* (see Chapter 1) and an additional language was introduced from Grade 1. An additive bilingual model has been adopted with the underlying principle of maintaining home language(s) while providing access to and the effective acquisition of additional language(s). However, particularly in schools where the dominant first language is an African language, it is not standard practice that every learner is educated in his or her first language. This is particularly difficult in high-density urban areas where many languages co-exist. In contrast, learners may have a greater likelihood of being educated in their first language in rural areas, where a more monolingual environment exists.

Language of instruction issues are further complicated at the end of the Foundation Phase, because the current *Language in Education Policy* requires that English be the language of curriculum and instruction from Grade 4 onwards for the majority of learners.

### 2.3 Language Curricula and Reading in the Primary School up to 2011

Up to and including 2011, when PIRLS and prePIRLS data was collected in South Africa, the *Revised National Curriculum Statement Grades R–9* (commonly known as Curriculum 2005) was in place. In September 1997, an initial form of this curriculum was approved as three separate policy documents for the Foundation Phase (Grades R–3), the Intermediate Phase (Grades 4–6), and the Senior Phase (Grades 7–9). As mentioned in Chapter 1, the curriculum was revised during 2001 and released as the *Revised National Curriculum Statement* in 2002. A further revision took place in 2010–11 for gradual implementation beginning in 2012 (see below in this chapter).

In the *Revised National Curriculum Statement Grades R–9*, the Foundation Phase had three learning programmes (Literacy, Numeracy and Life Skills), while the Intermediate Phase, which included Grade 4, has 8 learning area subjects (Languages; Mathematics; Life Orientation; Arts and Culture; Natural Science; Economic and Management Sciences; Social Sciences and Technology). Learning programmes ensured that the prescribed outcomes for each learning area were covered effectively and comprehensively. Schools could decide on the number and nature of other learning programmes based on the organisational imperatives of the school, provided that the national priorities and developmental needs of learners in a given phase were taken into account.

In a multilingual country such as South Africa, the curriculum should encourage learners to reach high levels of proficiency in at least two languages and be able to communicate in others. The language learning area statement followed an additive or incremental approach to multilingualism, namely, all learners learn their home language and at least one additional official language, and become competent in their additional language while the home language is maintained and developed. The statement covered all official languages as home languages, first additional languages, and second additional languages, stating that the learners' home languages should be used for learning and teaching whenever possible, particularly in the Foundation Phase when learners learn to read and write. When learners are required to make the transition from their home

language to an additional language for learning and teaching, careful planning is necessary. Among the six specified outcomes of the reading curriculum in the General Education and Training (GET) Phase (Grades R–9), one specific ‘reading and viewing’ outcome aimed at learners being able to read and view for information and enjoyment, and to respond critically to the aesthetic, cultural, and emotional values in texts (DoE, 2002a). The other five expected language outcomes were associated with overall language competency, and include listening, speaking, writing, thinking and reasoning, and language structure and use. All of the expected language outcomes are interrelated (DoE, 2003a).

In the Foundation Phase (Grades R–3), the curriculum reflected the guiding principle that language development involves a gradual process of improving literacy teaching and learning (DoE, 2002a). It advocated a ‘balanced approach’ to literacy development, beginning with emergent literacy and involving children in reading ‘real’ books and writing for genuine purposes. Attention was also paid to the teaching of phonics to support literacy development. In the Foundation Phase, the main purpose was ‘reading for meaning’, which was supported by techniques and strategies that help learners do this with increasing fluency. The policy acknowledged that reading (including visual and multimedia texts) is essential for language development, learning to write, enjoyment, personal growth, and learning about the world.

The *Revised National Curriculum Statement* Grades R–9 also placed the focus of the Foundation Phase teaching on ensuring that all learners learn to read (DoE, 2003b). In this regard the curriculum recognised that all learners must be taught strategies that help them to decode written text and to read with understanding. Learners should also learn to interpret pictures and other graphics that will help them make sense of visual and multimedia texts. Furthermore, they should know how to locate and use information, follow a process or argument, summarise, develop their own understanding, and adapt and demonstrate what they learn from their reading. The curriculum also recommended that classrooms be a ‘print rich’ environment. Table 2.5 (below) presents the assessment standards for the ‘reading and viewing’ learning outcome that were specified at Grades R–3 (DoE, 2002b).

**Table 2.5: Assessment Standards for Reading and Viewing, Grades R-3**

| Assessment Standards  | Grades |
|---|--------|
| Use visual cues to make meaning                                 | R-3    |
| Be able to role play reading                                    | R-1    |
| Make meaning of written text                                    | R-3    |
| Start recognising and making meaning of letters and words       | R      |
| Begin to develop phonic awareness                               | R      |
| Develop phonic awareness  | R      |
| Consolidate phonic awareness                                    | 3      |
| Recognise letters and words and make meaning of written text    | 1      |
| Read for information and enjoyment                              | 1-3    |
| Recognise and make meaning of words in longer texts             | 2      |
| Read text alone and use a variety of strategies to make meaning | 3      |

At Grades 4 and 5, attainment of the ‘reading and viewing’ outcome was achieved if the learner is able to ‘understand in a simple way some elements of stories’ and ‘understand in a very simple way, some elements of poetry etc. on social issues’ (DoE, 2003b).

While reading time was not specified in the curriculum, 26 hours and 30 minutes per week were allocated for formal teaching in the Intermediate Phase (Grades 4–6). One-quarter of this time should be spent on languages.

## 2.4 Curriculum Assessment Policy Statement (CAPS) for Language

In January 2012, the *National Curriculum Statement Grades R–12* of 2011 (DoE, 2011) was put in place nationally. A single comprehensive curriculum and assessment policy document was developed for each subject, replacing the subject statements, learning programme guidelines, and subject assessment guidelines in Grades R–12 that had been part of the former outcomes-based curricula. The *National Curriculum Statement Grades R–12* aims to produce learners who are able to do the following: collect, analyse, organise, and critically evaluate information and communicate effectively using visual, symbolic, and language skills in various modes. Language learning in the Intermediate Phase (Grades 4–6) encompasses all the official languages in South Africa, as well as non-official languages, which can be offered at different language levels.

The level of proficiency in the first language ideally reflects the basic interpersonal communication skills required in social situations, as well as the cognitive skills essential for learning across the curriculum. However, many South African schools do not offer the home languages to some or all of the enrolled learners, perhaps because it is beyond the school’s capacity to do so. If the school can only offer one or two languages, the curricula for home language and first additional language<sup>13</sup> differentiate the proficiency level at which the language is offered, that is native (home) or acquired (additional) language.<sup>14</sup>

In South Africa, many children start using their additional language, English, as the language of learning in Grade 4, which means that they need to reach a high level of competence in reading and writing English by the end of Grade 3. Emphasis is placed on the teaching of the listening, speaking, reading, and writing skills at the additional language level. Grade 4-level also provides learners with literary, aesthetic, and imaginative competencies that will enable them to recreate, imagine, and empower their understandings of the world in which they live. Listening and speaking receive less emphasis than reading and writing skills from Grade 7 onwards.<sup>15</sup>

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13. The first additional language refers to a language which is not a mother tongue but which is used for certain communicative functions in a society (i.e., medium of learning and teaching in education). The curriculum provides strong support for those learners who will use their first additional language as a language of learning and teaching.

14. For the purposes of this policy, any reference to home language should be understood to refer to the level and not the language itself.

15. In the Intermediate and Senior Phases, learners continue to strengthen their listening, speaking, reading and writing skills. At this stage the majority of children are learning through the medium of their first additional language, English, and should be gaining more exposure to it. Therefore, greater emphasis is placed on using the first additional language for the purposes of thinking and reasoning. This enables learners to develop their cognitive academic skills, which they need to study subjects such as Science in English. Students also engage more with literary texts and begin to develop aesthetic and imaginative ability in their additional language.

The new curriculum places the responsibility on teachers to differentiate reading levels and to select appropriate reading materials that will effectively support learners. Course readers are considered important for reading instruction, while authentic reading material (library books and other real-life texts) are used to develop higher levels of reading (i.e., independent reading). The new curriculum is also far more specific in providing teachers with instructional plans that contain the minimum content to be covered over two-week blocks.

Lastly, the *National Curriculum Statement Grades R–12* provides teacher guidelines on the development of a language lesson. It suggests that pre-reading activities should be used to prepare learners for reading. Typical pre-reading activities include discussion of the text title, predictions about story content, and using keywords from the text to engage learners even before starting to read. The curriculum encourages teachers to interrupt reading sessions by looking back at the text in order to verify whether predictions were accurate, or to discuss why things did not develop in the way learners had predicted. At the same time, further predictions could be made about the story. Teachers are advised to engage learners in reflection following reading. Literal questions could be asked, leading to more complex and abstract answers based on inferences made from the text. Learners could be asked to re-tell, dramatise, or critically discuss the text by focusing on values, messages, or cultural or moral issues conveyed in the text. Other activities include comparing the current text to other texts they have read independently, or showing differences and similarities between texts.

## 2.5 Reading Policy as of 2012

The *National Curriculum and Assessment Policy Statement* of 2011 (DoE, 2011) has been implemented gradually, beginning with the Foundation Phase (Grades R–3) in 2012 (DoE, 2011). In this phase, the main skills of the curriculum include listening and speaking, reading and phonics, and writing and handwriting. Underlying these skills are thinking and reasoning, and language structure and use. In the Intermediate Phase (Grades 4–6), listening, speaking, and language usage skills are further developed and refined but with an emphasis on reading and writing skills, which are considered central to successful learning across the curriculum (DoE, 2010). During the Intermediate Phase, learners are expected to further develop their proficiency in reading and viewing a wide range of literary and non-literary texts, including visual ones. The reading policy envisages learners who are able to recognise genre, and reflect on the purpose, audience and context of texts. Through classroom and independent reading, learners in this phase learn to become critical and creative thinkers.

## 2.6 Impact of PIRLS 2006 and Interventions since 2006

International assessments such as PIRLS 2011 may have an impact on the South African education system. South Africa's much-worse-than-predicted results from PIRLS 2006 prompted important changes to the education system, with a particular focus on reading literacy. These changes will need to be monitored to determine if they are achieving their aims, and PIRLS 2006 data currently serves as a critical external baseline for reading literacy achievement at Grades 4 and 5.

Some of the initiatives in the South African system have included:

- The *Drop All and Read Campaign*, which is among the initiatives put in place to improve students' reading literacy.
- In the first quarter of 2008, the Government announced that it was doubling the public library budget.
- The DBE has focused on providing schools with literacy resources. Over the last four years, for example, it has invested in storybooks, written in all official languages, to over 11 000 primary schools.
- The *Ithuba Writing Project* has distributed 2.3 million books in all 11 languages to schools.
- In 2009, a national weekly newspaper launched another large-scale national initiative to collect and distribute books to children in need.
- As part of the *Foundations for Learning Campaign*, primary school learners have been assessed annually via standardised tests, and the resulting data is being compared to established baselines.

Other resources and documents that the DBE has distributed to schools in recent years include the following:

- The *National Reading Strategy document*, which outlines activities and approaches to promote and develop the reading skills of students;
- A handbook for teachers to develop methods, approaches and activities that will improve their teaching of reading;
- A "toolkit" for teachers that contains both reading resources and guidelines; and
- An early grade reading assessment which teachers currently use in selected districts as part of a programme to monitor progress across different schools. By 2010, the assessment had been written in five languages.

The extent to which PIRLS 2006 findings contributed to these developments is uncertain, but their timing suggests PIRLS did have an influence. PIRLS, directly or indirectly, appears to have contributed to a heightened awareness throughout South Africa of the country's current problems and needs regarding literacy. Likewise, it is expected that PIRLS 2011 could also have a positive influence on the education system.

## 2.7 Summary

Chapter 2 has provided an outline of the language profile of South Africa and specific challenges to the implementation of the *Language in Education Policy*. The change in LoLT in the Foundation Phase from home language to English in the Intermediate Phase is particularly problematic. As a remedy, an additive bilingual model with the underlying principle of maintaining home language(s) while providing access to and the effective acquisition of additional language(s), has been adopted. However, there is still a challenge to meet the needs specifically of African language learners in receiving education in their first language at school.

The CAPS documents provide teachers with more structured guidelines on activities, timelines and indications of time spent on specific reading activities. In addition, the reading policy envisages learners who are proficient in recognising genre, and reflecting on the purpose, audience, and context of texts. Through classroom and independent reading, learners should become critical and creative thinkers.

The possible impact of PIRLS 2006 in terms of policy shifts and intervention strategies was described. While the PIRLS 2006 reading literacy achievement results were not regarded as good news for the education system, South Africa's continued participation was considered desirable, and PIRLS 2011 serves as a monitoring system in identifying gaps between the curriculum policy intentions (intended), what is happening in the schools and in classrooms (implemented), and what the children have learnt (attained).





## CHAPTER 3

# RESEARCH DESIGN AND METHODS USED IN prePIRLS AND PIRLS 2011

In this chapter, the research design for PIRLS and prePIRLS is described, as well as the methods used internationally and in South Africa. PIRLS internationally presents a very complex research design and applies state-of-the-art knowledge in research methodology, psychometrics and statistics. Educational research development has benefitted tremendously from the IEA and its innovative approaches to international surveys and comparative research. This is also one of the benefits of South African teams participating in these studies, in that this knowledge is gained and utilised in other national studies.

Firstly, the conceptual framework that informs the research design is described briefly and the research questions for the study presented. Thereafter, the overall design is presented and the methods, including sampling, research instruments (both achievement and questionnaires), translation, data collection, data capturing and processing and quality assurance is discussed. Finally, a summary of the chapter is presented.

### 3.1 Conceptual Framework: prePIRLS and PIRLS 2011

The definition of reading literacy that serves as the basis for prePIRLS 2011 and PIRLS 2011 states that:

*...reading literacy is defined as the ability to understand and use those written language forms required by society and/or valued by the individual. Young readers can construct meaning from a variety of texts. They read to learn, to participate in communities of readers in school and everyday life, and for enjoyment (Mullis et al., 2009).*

This definition highlights the importance of reading in school and everyday life, where readers are regarded as actively constructing meaning, as well as knowing effective reading strategies and how to reflect on reading. In this conceptualisation of reading literacy, readers are seen as having positive attitudes towards reading and thus engage in reading for enjoyment and recreation.

From the conceptual framework used for the research design and data collection instruments for the PIRLS 2011 and prePIRLS 2011 studies, it is apparent that young children acquire reading literacy through a variety of activities within different contexts (see Figure 3.1). Learners' reading is influenced by home, school and classroom contexts, as well as by the communities in which they live and which have different resources, goals and organisational features (Mullis et al., 2009), any of which are likely in turn to influence children's reading literacy experiences. As important as the home and school is, of greater influence is the national context in which all home and school activities take place. Because factors that may foster or impede learning are distributed across communities, homes and school environments, PIRLS 2011 makes use of a framework that takes into account the nesting of these situations. National and community contexts here refer to:

aspects of language and the emphasis placed on literacy within the country, demographics and resources, the organisation and structure of the education system nationally, provincially and at district level, as well as the broader community in which the learner lives, and the nature and content of the reading curriculum in the early grades.

Home context refers to 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. Furthermore, according to Mullis et al. (2009), school context refers to those school characteristics that affect reading literacy and the child’s attainment at school. These include the school’s organisation for instruction, the optimal school climate for learning, the availability of resources and parental involvement.

The *PIRLS 2011 Assessment Framework* (Mullis et al., 2009) illustrates what is meant by the contexts that develop children’s reading literacy (see Figure 3.1).

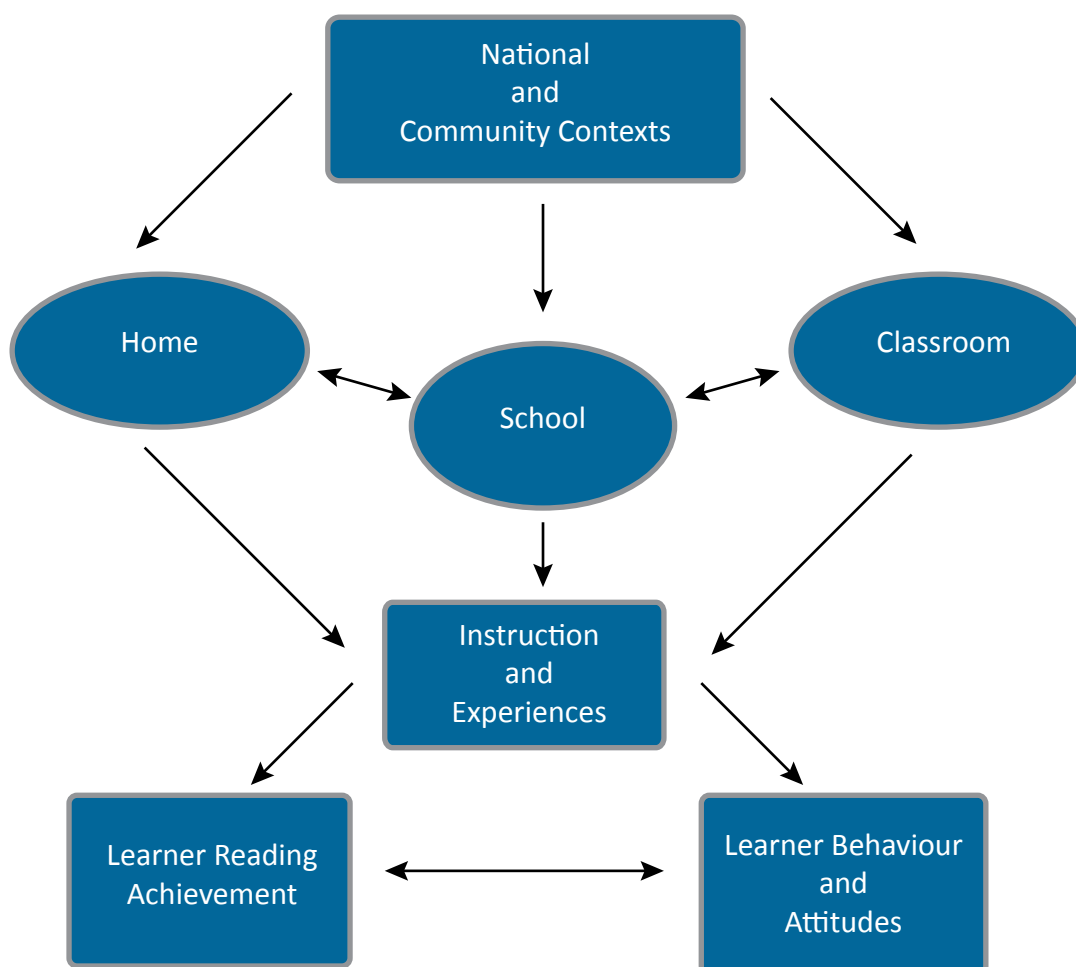


Figure 3.1: : Conceptual Framework for the PIRLS 2011 (from Mullis et al., 2009)

Within the school context, the classroom context also exerts influence over learner development and educational achievement by means of teachers’ direct contact and instruction on a daily basis. The classroom context becomes most evident through aspects of teacher education and development, teacher characteristics and attitudes, classroom characteristics (for example, class size, teacher-to-learner ratio), instructional materials and technology, instructional strategies and activities, and assessment (Mullis et al., 2009). Finally, learner characteristics and attitudes become evident in reading literacy behaviour, positive attitudes towards reading and attitudes towards learning to read.

## 3.2 Research Objectives

The research objectives are underpinned by the conceptual framework, described in Section 3.1, as well as limitations of the design. For instance, given that this is a new study, the Grade 4 achievement data from prePIRLS is establishing a new baseline. However, the questionnaire data collected in PIRLS 2006 about the learners, parents, teachers and principals permits some trends to be measured. The PIRLS data on the other hand, allows for some trend data in the achievement tests and questionnaires but is limited to the Grade 5 Afrikaans and English groups as these groups wrote in 2006 and 2011. No trend achievement measure is possible for the African languages at Grade 5 level. Against this background, the research objectives for both prePIRLS and PIRLS are outlined below.

The research objectives for prePIRLS are to describe national performance and international comparisons for:

- The reading achievement of Grade 4 learners in South Africa;
- The reading achievement of Grade 4 learners in 11 official South African languages, and the achievement of benchmarks in reading;
- Grade 4 learner competencies in relation to goals and standards for reading education;
- The impact of the home environment and social conditions on Grade 4 learner performance and how parents foster reading literacy with PIRLS 2006 as baseline data;
- The organisation and planning of the reading curriculum in Grade 4 by schools with PIRLS 2006 as baseline data;
- Classroom approaches to and strategies for the teaching of reading in Grade 4, taking into account time and reading materials for instruction; and
- Policy implementation regarding curriculum and infrastructural development at schools at Grade 4 level.

The research objectives for PIRLS 2011 are to describe trends for and international comparisons with:

- The reading achievement of Grade 5 learners and the benchmarking thereof in English or Afrikaans;
- Measurable progression, comparison and change in Grade 5 learners' reading achievement with PIRLS 2006 as baseline data;
- Grade 5 learners' competencies in relation to goals and standards for reading education;
- The impact of the home environment and social conditions and how parents foster reading literacy with PIRLS 2006 as baseline data;
- The organisation and planning of the reading curriculum by schools with PIRLS 2006 as baseline data;

- Classroom approaches and strategies in Grade 5 to the teaching of reading, taking into account time and reading materials instruction; and
- Policy implementation regarding curriculum and infrastructural development at schools in Grade 5.

### 3.3 Study Design and Methods

PIRLS 2011<sup>16</sup>, as with previous IEA achievement studies and PIRLS studies, was a survey and a trend study and as such, it is critical to ensure that the methods that were applied would enable the PIRLS 2011 to be comparable to PIRLS 2006, in addition to ensuring that participating countries could be compared. In this section, the various methods that were used in this design are described briefly to provide the understanding necessary to interrogate the results provided in the following chapters.

#### 3.3.1 Population and Sampling: prePIRLS and PIRLS 2011

PIRLS 2011 required that “(t)he target grade should be the grade that represents four years of schooling, continuing from the first year of ISCED Level 1” (Mullis et al., 2006, p.7). ISCED Level 1 refers to the primary or first stage of basic education as presented in the International Standard Classification of Education developed by the Institute for Statistics of UNESCO (1997). All countries included one study population based on this criterion. In South Africa, the above requirement translated into the Grade 4 population. In addition, the prePIRLS and PIRLS 2011 sampling design required the participation of at least 150 schools with the assessment of 4 000 learners (Joncas & Foy, 2010).

A three-stage stratified cluster sampling design was employed in prePIRLS and PIRLS 2011 (Joncas & Foy, 2010). During the first stage, schools were sampled in proportion to size, followed by the second stage of randomly sampling classrooms, and all the learners in them as the third sample unit.

In South Africa, a sample of schools that had instruction at least up to Grade 4 level was selected for prePIRLS 2011. The PIRLS 2011 sample was selected from all the schools that had instruction in English and/or Afrikaans up to Grade 5. The prePIRLS 2011 was administered to the Grade 4 learners and PIRLS 2011 to the Grade 5 learners. A decision was taken to test Grade 5 learners to follow on the design of the PIRLS 2006 study. For purposes of PIRLS 2006, both Grades 4 and 5 were tested, with the latter being tested to obtain measures of progression from Grade 4 to 5, specifically in light of changes made to the LoLT at Grade 4. The sample was stratified explicitly by language. Due to the complexity of the realities of language in South African schools, with multiple combinations possible, schools were sampled according to language of instruction and school status,<sup>17</sup> which resulted in 19 explicit strata for prePIRLS and four for PIRLS 2011.

16. In this chapter, the design and methods will be described in terms of PIRLS and only where prePIRLS deviates from the design or specific features need to be highlighted will there be a separate description given.

17. Three school status categories were created: those with ‘Grade 4 Only’, ‘Grade 4 and Grade 5’ and ‘Grade 5 only’.

Originally, 345 schools were sampled for prePIRLS 2011, but only 341 (99.1%) were eligible for participation. Ineligible schools included those which refused participation because of prior commitments, ones reflected on the EMIS system but which had amalgamated with others in an area, and those that no longer existed. Out of 100 schools sampled for PIRLS, only 92 participated. In prePIRLS, 15 744 Grade 4 learners participated and in PIRLS, 3 515 Grade 5 learners participated. In each school an intact class was sampled and all the learners present on the day of testing included.

### 3.3.2 Assessment Instruments: prePIRLS and PIRLS 2011

All the assessment instruments had to be administered in the LoLT that was used from Grades 1 to 3 of formal education, but given that South Africa tested in all 11 languages in prePIRLS, this was a challenge for the translators (described in Section 3.3.4).

All the PIRLS 2011 instruments were developed and prepared in English by two international committees working with the International Study Center (ISC) at Boston College, USA, together with contributions from the National Research Coordinators (NRCs) of participating countries. The reading assessment instruments included Grade 4-level fictional stories and informational texts supplied by different countries. Purposes for reading and the processes of comprehension form the basis of the written tests used in prePIRLS and PIRLS 2011 for reading comprehension. Learners were expected to engage in a full range of reading strategies, including retrieving and focusing on specific ideas, making simple and more complex inferences and examining and evaluating text features. Text passages were followed by multiple-choice and free-response format questions about the text.

prePIRLS and PIRLS 2011 comprise five reading scales, that is, an overall reading literacy scale, and two separate scales involving the purposes of reading, namely literary experience and the acquisition and use of information. Two additional scales for reading comprehension processes complete these scales, namely: a) retrieving and straightforward inferencing, and b) interpreting, integrating and evaluating (Mullis et al., 2007).

In order to ensure a balance of different types of texts, which represent the spread of reading materials to which children are exposed, and to construct the abovementioned scales, a matrix assessment design was followed. Reading passages and the accompanying items (questions) were divided into groups or blocks. Four literary passages (L1 – L4) and four informational passages (I1 – I4) were constructed for prePIRLS 2011. Eight blocks were then distributed across 12 different test booklets. PIRLS 2011 consisted of five literary passages (L1 – L5) and five informational passages (I1 – I5). Thirteen different booklets were created from ten reading passages. The matrix design for both prePIRLS and PIRLS 2011 are illustrated in Tables 3.1 and 3.2 respectively.

**Table 3.1: Matrix Sampling Blocks for prePIRLS 2011**

| Purpose for Reading         | Block               |    |    |    |
|-----------------------------|---------------------|----|----|----|
|                             | Literary Experience | L1 | L2 | L3 |
| Acquire and Use Information | I1                  | I2 | I3 | I4 |

**Table 3.2: Matrix Sampling Blocks for PIRLS 2011**

| Purpose for Reading         | Block |    |    |    |    |
|-----------------------------|-------|----|----|----|----|
|                             | L1    | L2 | L3 | L4 | L5 |
| Literary Experience         |       |    |    |    |    |
| Acquire and Use Information | I1    | I2 | I3 | I4 | I5 |

For purposes of measuring trends in PIRLS 2011, six passages (three literary and three informational) and items from PIRLS 2001 and PIRLS 2006 were retained as trend measures (Mullis et al., 2009).

### **3.3.3 Background Questionnaires: prePIRLS and PIRLS 2011**

Background questionnaires were aimed at collecting data related to reading behaviour of learners and attitudes of learners, parents, teachers and school principals towards education and reading. The questionnaires were designed to collect information about the learners' home and school experiences in connection with learning to read. The learner questionnaires targeted their attitudes to reading and reading habits, in addition to collecting information about their experiences and environment at home and at school. Similarly, the parent questionnaires attempted to ascertain the learners' home environment and parents' behaviour and attitudes towards reading and that of their children being assessed. Questionnaires given to teachers and school principals were aimed at gathering information about the learners' school and classroom contexts, in particular about the teaching and learning related to reading and language.

### **3.3.4 Translation of Instruments in South Africa**

After the PIRLS 2011 instruments had been developed, prepared in English and distributed by the International Study Centre (ISC), participating countries translated the assessment instruments into their local languages of instruction. The ISC stipulated translation procedures to ensure standardisation of instruments across countries. Such a translation procedure is needed in order for valid comparisons to be made. The translation process ensured equivalence in passages and items across languages, while at the same time acknowledging that differences in expressions could occur across countries.

In South Africa, for prePIRLS 2011, the assessment instruments had to be contextualised for the South African context and modified and then translated into the other 10 official languages. The PIRLS 2011 instruments were only contextualised and then translated into Afrikaans. Professional translators were appointed to ensure translations of a high standard for all the languages. In terms of the background questionnaires, only the parent and learner questionnaires were translated into all the official languages for prePIRLS, whilst for PIRLS they were only translated into Afrikaans. The teacher and the principal questionnaires were administered in Afrikaans or English, based on the assumption that most teachers and school principals would have been able to speak, write and understand these languages, as required by their teacher training qualifications.

On completion of the translation of the assessment instruments and background questionnaires into all the official languages, the instruments were scrutinised through a process of international translation verification. In order to adhere to strict quality control measures, all translated assessment instruments and questionnaires were submitted to the secretariat at the International Association for the Evaluation of Education Achievement (IEA). The secretariat appointed independent translation verifiers to assure quality, verify translated instruments for each country participating in PIRLS 2011 and ensure standardisation of instruments. Due to the exceptional and extraordinary number of languages for South Africa, for this purpose the IEA<sup>18</sup> only verified the seven most spoken languages nationally and therefore, additional quality assurance was required from the National Coordinating Centre for the remaining four.

### 3.3.5 Data Collection

The size of the PIRLS 2011 study in South Africa provided many logistical challenges. Great care had to be taken in preparing the instruments, overseeing the printing process and managing the packing process of instruments for both prePIRLS and PIRLS 2011. prePIRLS 2011 consisted of 176 different instruments<sup>19</sup>, whilst PIRLS 2011 had 34.<sup>20</sup> In total, 210 different instruments were used across both studies. All instruments were randomly assigned to learners in advance of the date of testing and were individually marked with the names of learner on each of the booklets. The organisation required six weeks of preparation time for sorting and packing, due to the precision required.

The main data collection was conducted by a market research company appointed by the Centre for Evaluation and Assessment. Training was provided to the fieldworkers and the fieldwork supervisors to ensure a standardised procedure and compliance with the strict guidelines for testing and data collection by the IEA. The data collection took place during October and November 2011. Challenges that arose during fieldwork mainly involved incorrect language information as gathered from schools, resulting in incorrect instruments being dispatched to schools for testing, delays due to changes in testing dates and labour strikes that affected Mpumalanga schools specifically.

Data collection took the form of a one-day testing session, in which learners completed the reading achievement tests in two sessions of 40 minutes broken up by a mandatory break, followed by the completion of the learner questionnaire, for which 30 minutes had been scheduled. Learners were encouraged to take the time needed to complete the learner questionnaires. School and teacher questionnaires were handed to the relevant teacher and school principals upon arrival at the school on the day of testing for collection at the end of the day. Parent questionnaires were handed to learners and collected the following day, with a small incentive for learners to return these completed questionnaires as requested.

### 3.3.6 Scoring

Scoring of the constructed response items was concluded over an 8-week period involving 99 scorers scoring 19 256 instruments. Scorers, comprising student teachers recruited from the Faculty of

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18. The largest number of languages tested elsewhere was in Spain, with five.

19. PrePIRLS comprised 12 different booklets in 11 languages, learner and parents questionnaires in 11 languages, in addition to a teacher and school questionnaire.

20. PIRLS consisted of 13 different booklets in 2 languages, learner and parent questionnaires in 2 languages, in addition to a teacher and school questionnaire.

Education and experienced retired teachers, were mother-tongue speakers. They were trained over a three-day period using the comprehensive scoring guidelines provided by the IEA. Quality of scoring was assured by scoring checks throughout the process, reliability scoring (Team A and Team B scoring the same booklet) and quality assurance of one in five booklets by seven independent quality assurers.

### 3.3.7 Data Capture and Processing

The IEA designed a program, *WinDEM*, which was made available to all participants to capture and verify the data. An external company was appointed to capture the prePIRLS 2011 and PIRLS 2011 assessment instruments and background questionnaires. The data was provided in ASCII format to the data manager at the CEA. *Statistical Analysis System (SAS)* software was used to access, clean and cross-check the data according to IEA requirements, after which it was converted into a *dBASE* format then imported into *WinDem*. The IEA only required participants to check and verify 5% of the data upon capturing,<sup>21</sup> (i.e., the verification rate). Based upon experience from previous studies, a decision was made to undertake 100% verification of South Africa's data.

### 3.3.8 Quality Assurance

Several quality control checkpoints were put in place to ensure the highest quality of data. The instrument unpacking process and dispatch of instruments to professional data capturers required stringent procedures.

In order to ensure consistency in the fieldwork within and between countries and to ensure compliance with IEA/PIRLS 2011 data collection guidelines and standards, a monitoring process was put in place. Fieldwork monitoring involved members of the CEA visiting schools unannounced on the day of data collection to record adherence to guidelines and fieldwork administration procedures. In addition to monitors from the CEA, an International Quality Control Monitor (a South African appointed and trained by the IEA) served as an external quality control measure and reported directly to the IEA secretariat on data collection activities in South Africa.

## 3.4 Conclusions

The IEA stipulates technical standards for conducting international studies. Rigorous standards directed all aspects of the study, from the assessment framework and research questions to the quality assurance of the data and the reporting. These pertain especially to sampling as it is critical to the design of the study and the reporting thereof. The data collection phase, given the extent of the country and the remote position of some of the rural schools, presented challenges for the South African study.

The scale of the study, including the contextualisation of all the instruments and the translation of achievement booklets, learner and parent questionnaires into the 10 additional official languages, posed one of the greatest challenges to both studies. Sampling procedures for PIRLS 2011 adhered to strict processes and procedures in order to ensure the greatest possible representativeness according to strata.

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21. Usually achieved by capturing 5% of the same data twice and checking the extent of agreement between the two sets.



## CHAPTER 4

# SOUTH AFRICAN LEARNER PERFORMANCE IN READING LITERACY

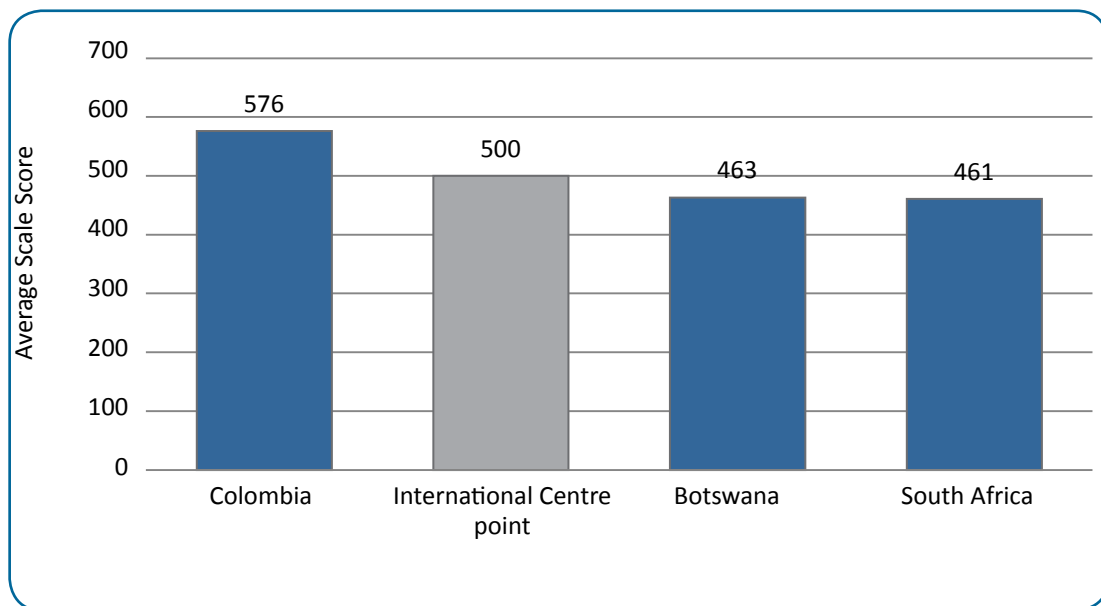
In this chapter, the performance of South African Grade 4 learners in prePIRLS in all 11 languages is presented, followed by the Grade 5 learners' results in PIRLS in English or Afrikaans. Each set of results is presented as the overall results with international comparisons, by gender, as national performance by language of the test, and as a comparison of the test language and home language of the learner. The Grade 5 results for PIRLS 2011 are also compared in a trend analysis with the PIRLS 2006 results.

### 4.1 South African Grade 4 Results for prePIRLS

This section presents the results for the prePIRLS study, broken down into sections as outlined in the introduction.

#### 4.1.1 South African Grade 4 prePIRLS 2011 Overall Results

A comparison of South African Grade 4 learner performance in prePIRLS 2011 with that of Colombia and Botswana is presented in Figure 4.1. The participants are presented in descending order of average reading achievement, with results depicted relative to a prePIRLS 2011 scale centre point of 500 and a standard deviation of 100.<sup>22</sup> South Africa was one of three countries pioneering the prePIRLS assessment, and as such it represents a new baseline for learners in Grade 4. Being one of only three countries participating in this new study, the comparisons are limited.



**Figure 4.1: South African Grade 4 Learner Performance in prePIRLS Compared Internationally**

22. The scale being used is a 0-1 000 metric scale with a scale centre point (median) of 500 and a standard deviation of 100. The International Centre point has been introduced in the 2011 study due to the wide variation in scores achieved by a more diverse group of countries than in 2006 (Mullis et al., 2012).

South African Grade 4 learners obtained an average score of 461 (SE=3.7), significantly lower than the prePIRLS 2011 centre point score of 500 (see Figure 4.1). South Africa's achievement is similar to that of Grade 4 learners in Botswana (463, SE=3.5) but both countries are significantly below the Grade 4 learners from Colombia, who obtained the highest score of 576 (SE=3.4) significantly above the prePIRLS 2011 centre point scale. The difference between the South African learners' performance and its neighbour lies in the range of achievement, with more South African learners scoring much higher scores (above 600 points) and also much lower scores (just above 300 points) than their Botswana counterparts. In contrast, the lowest performing learners from Colombia achieved scores similar to the average-achieving learners from the two African countries.

#### 4.1.2 South African Grade 4 prePIRLS 2011 Performance by Gender

International patterns of performance by gender show that girls outperform boys in every country in both prePIRLS and PIRLS 2011 studies. In prePIRLS, Colombia did not show any significant differences by gender, however both Botswana and South Africa did. In South Africa, the 48% prePIRLS 2011 sample of girls outperformed the boys with a 475 (SE=3.9) average score over 446 (SE=4.2), amounting to a 29 points (SE=3.2) difference (see Figure 4.2).

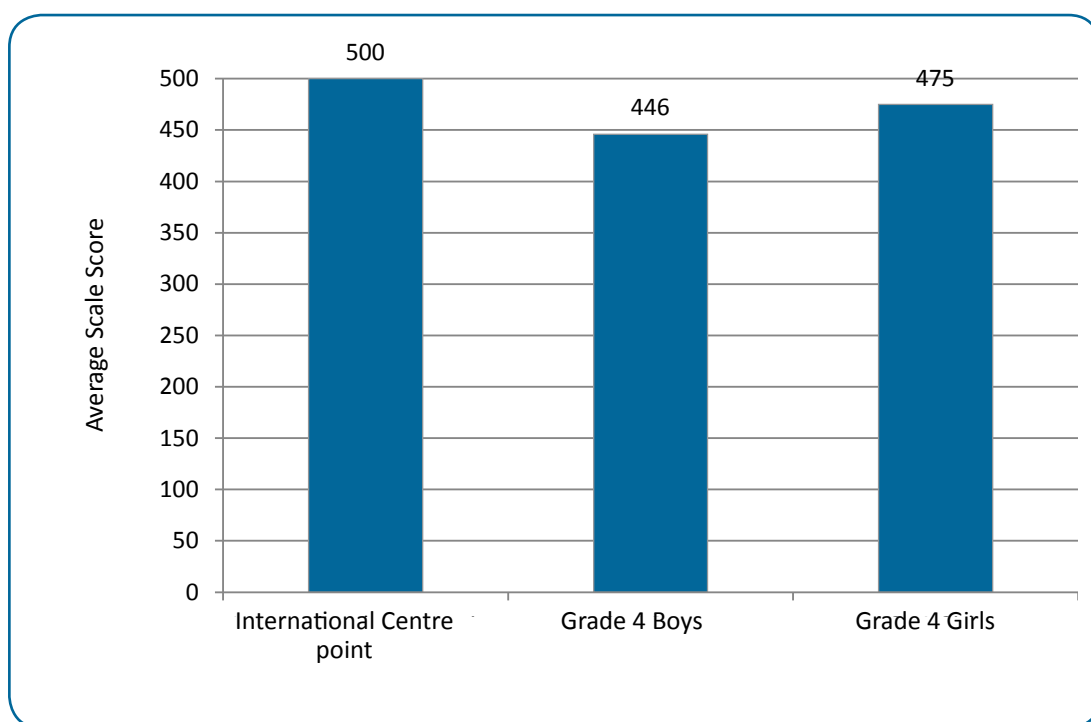


Figure 4.2: South African Grade 4 Learner Performance in prePIRLS 2011 by Gender

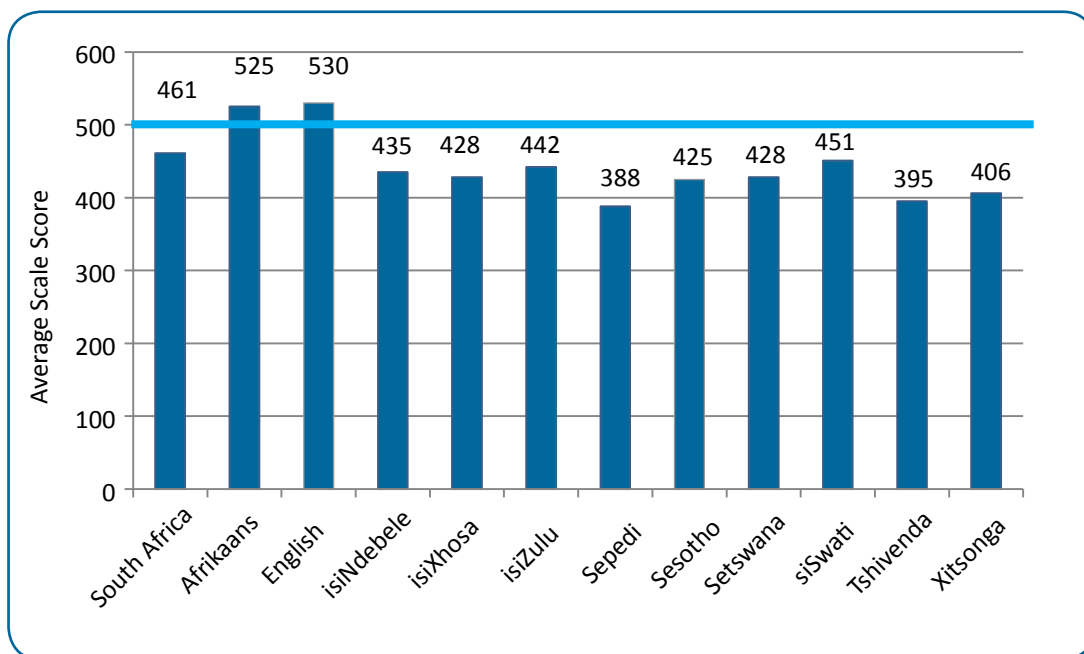
### 4.1.3 South African Grade 4 prePIRLS 2011 Performance for each of the 11 Languages

The Grade 4 learners were tested in all 11 official languages<sup>23</sup> and their performances analysed as a nationally representative sample (see Figure 4.3). Grade 4 learners who wrote in Afrikaans or English achieved the highest average scores of 525 (SE=9.9) and 530 (SE=10.1) respectively, higher than the international centre point of 500. They achieved between 100-150 points more than learners writing in African languages, which represents a difference of approximately 2-2.5 years of schooling in education terms.

**Figure 4.3: South African Learner Performance in prePIRLS 2011 by Language of the Test**

Note: the light blue line indicates the International Centre point of 500 points

Learners who wrote in siSwati (451, SE=5.8) achieved the highest overall scores in the African languages group, closely followed by those writing in isiZulu (443, SE=9.3). Learners writing in siSwati achieved higher scores than learners in six other African languages. Learners writing in isiZulu achieved higher scores than those writing in three other African languages. Learners who were assessed in Sepedi (388, SE=7.4) and Tshivenda (395, SE=7.6) obtained the lowest average scores of all 11 languages and were significantly lower than eight other African languages (see Table 4.1). The average scores obtained by learners from all African languages were well below the International Centre point score of 500.



**Table 4.1: Multiple Comparisons of Average Reading Achievement between Test Languages**

23. As explained in Chapter 3, a nationally representative sample of all 11 official languages was chosen for this study. The language of the test was selected for each school based on the LOLT present in Grades 1-3 and was confirmed by and at the school on the date of testing.

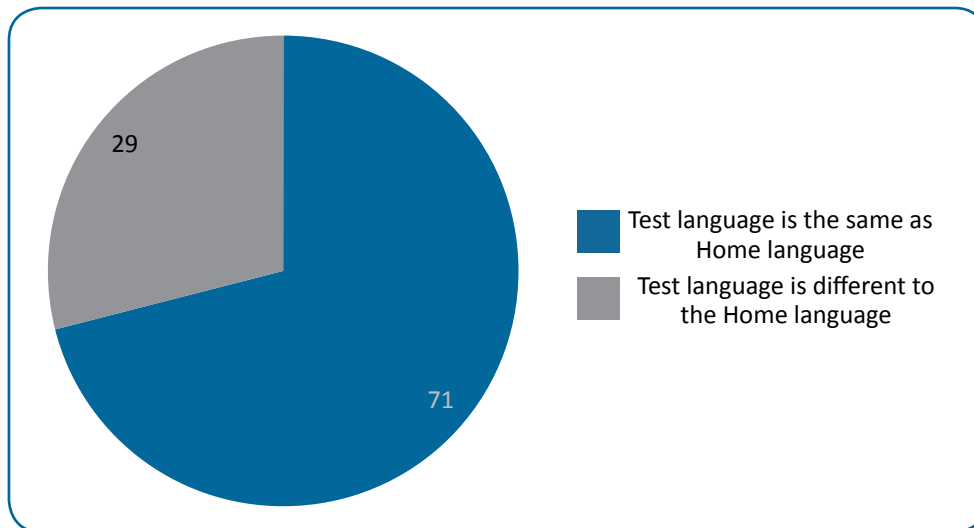
|                         | National Average | Afrikaans | English | isiNdebele | isiXhosa | isiZulu | Sepedi | Sesotho | Setswana | siSwati | Tshivenda | Xitsonga |
|-------------------------|------------------|-----------|---------|------------|----------|---------|--------|---------|----------|---------|-----------|----------|
|                         | 461              | 525       | 530     | 435        | 428      | 442     | 388    | 425     | 428      | 451     | 395       | 406      |
| <b>National average</b> | *                | +         | +       | -          | -        | -       | -      | -       | -        | =       | -         | -        |
| <b>Afrikaans</b>        | +                | *         | =       | +          | +        | +       | +      | +       | +        | +       | +         | +        |
| <b>English</b>          | +                | =         | *       | +          | +        | +       | +      | +       | +        | +       | +         | +        |
| <b>isiNdebele</b>       | -                | -         | -       | *          | =        | =       | +      | =       | =        | -       | +         | +        |
| <b>isiXhosa</b>         | -                | -         | -       | =          | *        | =       | +      | =       | =        | =       | +         | =        |
| <b>isiZulu</b>          | -                | -         | -       | =          | =        | *       | +      | =       | =        | =       | +         | +        |
| <b>Sepedi</b>           | -                | -         | -       | -          | -        | -       | *      | -       | -        | -       | =         | =        |
| <b>Sesotho</b>          | -                | -         | -       | =          | =        | =       | +      | *       | -        | -       | +         | =        |
| <b>Setswana</b>         | -                | -         | -       | =          | =        | =       | +      | =       | *        | -       | +         | +        |
| <b>siSwati</b>          | =                | -         | -       | +          | =        | =       | +      | +       | +        | *       | +         | +        |
| <b>Tshivenda</b>        | -                | -         | -       | -          | -        | -       | =      | -       | -        | -       | *         | =        |
| <b>Xitsonga</b>         | -                | -         | -       | -          | =        | -       | =      | =       | -        | -       | =         | *        |

Legend: (+) = significantly higher than other language; (-) significantly lower than other language; (=) represents an insignificant difference between the scores

#### 4.1.4 South African Grade 4 prePIRLS 2011 Results by Test Language and Home Language

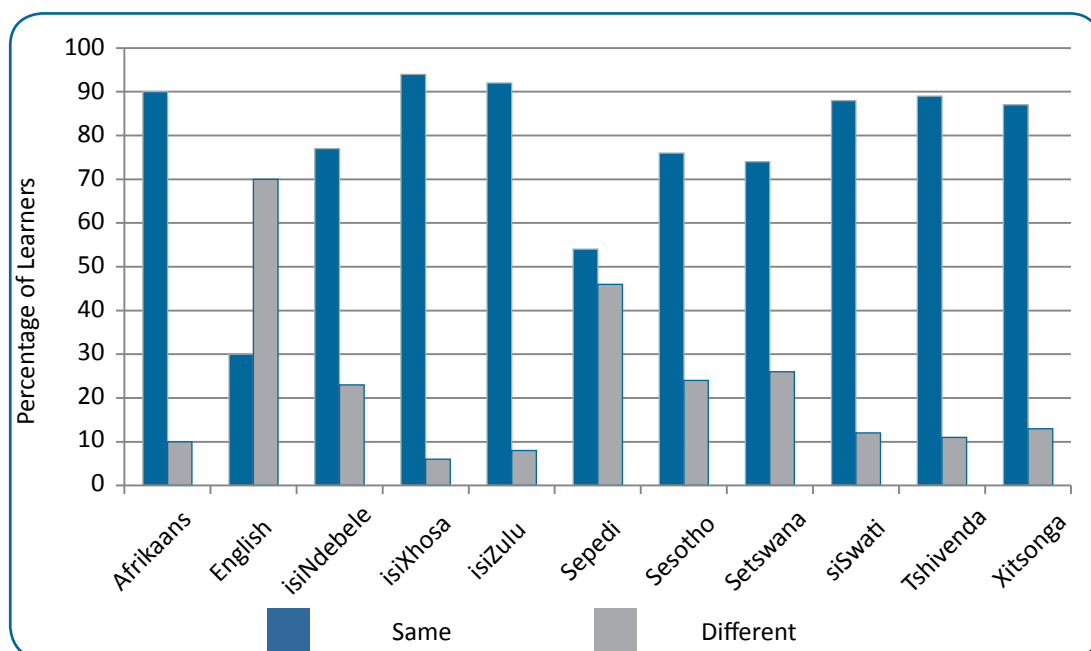
The international criteria for selecting schools and learners to participate in the study included one that the *language of the test* should be determined by the language children had been taught in for the first four years of schooling. In South Africa, that was interpreted as being the Language of Learning and Teaching (LoLT) that the schools offered for the Foundation Phase, thus not all Grade 4 learners were tested in their home language, but rather in accordance with the LoLT to which they had been exposed during their first three years of schooling (see Chapter 3). Therefore, it was very important to analyse the performance of the children in terms of whether or not they had had the opportunity to write the test in their home language or a different language and to ascertain its possible effect on the learner performance.

The majority of learners (71%) (n=14 030) wrote the prePIRLS test in their home language (same), as depicted in Figure 4.4.



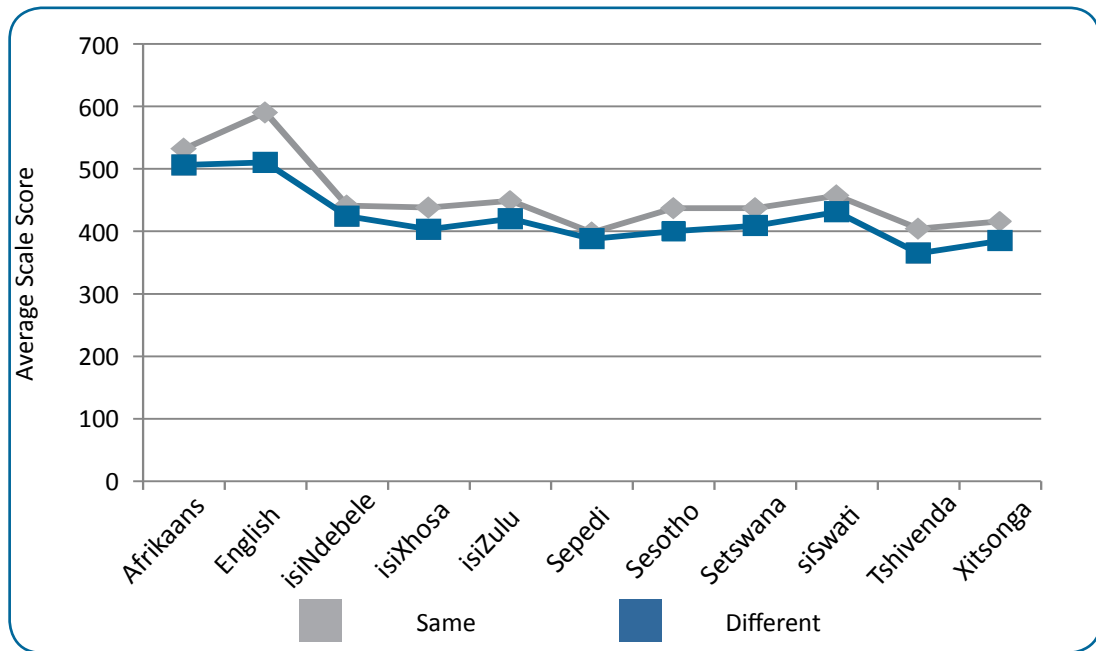
**Figure 4.4: Percentage of Learners who wrote prePIRLS 2011 in the Same or Different Language to their Home Language**

The exceptions were those writing in English (Figure 4.5), with about 70% writing in a different language, and those writing in Sepedi, of whom almost half (46%) did not write in their home language.



**Figure 4.5: Percentage of Learners tested in prePIRLS in a Language the Same as or Different to their Home Language**

In most languages, the achievement was significantly higher when children wrote in their home language (see Figure 4.6 and Table 4.2), with the exception of Afrikaans, isiZulu and Sepedi, where there was no significant difference.



**Figure 4.6: South African Grade 4 Learner Performance by Test Language in a Language the Same as or Different to their Home Language**

The children writing in English exhibited the largest differences in scores. Those writing prePIRLS in English who did not have English as a home language achieved 80 points fewer than those who did.

**Table 4.2: Learner Performance and Test Language Correspondence to Home Language**

| Language          | Language of the test is same or different | Percentage of learners | Achievement Mean score | Standard Error (SE) |
|-------------------|---|------------------------|------------------------|---------------------|
| <b>Afrikaans</b>  | Same                                      | 90                     | 533                    | 9.7                 |
|                   | Different                                 | 10                     | 507                    | 15.4                |
| <b>English</b>    | Same                                      | 30                     | 590                    | 10.4                |
|                   | Different                                 | 70                     | 511                    | 8.4                 |
| <b>isiNdebele</b> | Same                                      | 77                     | 441                    | 5.6                 |
|                   | Different                                 | 23                     | 425                    | 5.8                 |
| <b>isiXhosa</b>   | Same                                      | 94                     | 438                    | 10.1                |
|                   | Different                                 | 6                      | 404                    | 18.8                |
| <b>isiZulu</b>    | Same                                      | 92                     | 449                    | 9.6                 |
|                   | Different                                 | 8                      | 420                    | 15.5                |
| <b>Sepedi</b>     | Same                                      | 54                     | 398                    | 10.5                |
|                   | Different                                 | 46                     | 389                    | 7.4                 |
| <b>Sesotho</b>    | Same                                      | 76                     | 438                    | 6.2                 |
|                   | Different                                 | 24                     | 401                    | 9.8                 |
| <b>Setswana</b>   | Same                                      | 74                     | 437                    | 5.3                 |
|                   | Different                                 | 26                     | 409                    | 5.3                 |
| <b>siSwati</b>    | Same                                      | 88                     | 458                    | 5.7                 |
|                   | Different                                 | 12                     | 431                    | 11.3                |
| <b>Tshivenda</b>  | Same                                      | 89                     | 405                    | 8.2                 |
|                   | Different                                 | 11                     | 365                    | 13.8                |
| <b>Xitsonga</b>   | Same                                      | 87                     | 417                    | 7.1                 |
|                   | Different                                 | 13                     | 385                    | 12.1                |

#### 4.1.5 prePIRLS 2011 Relative Average Achievement in Reading Purposes

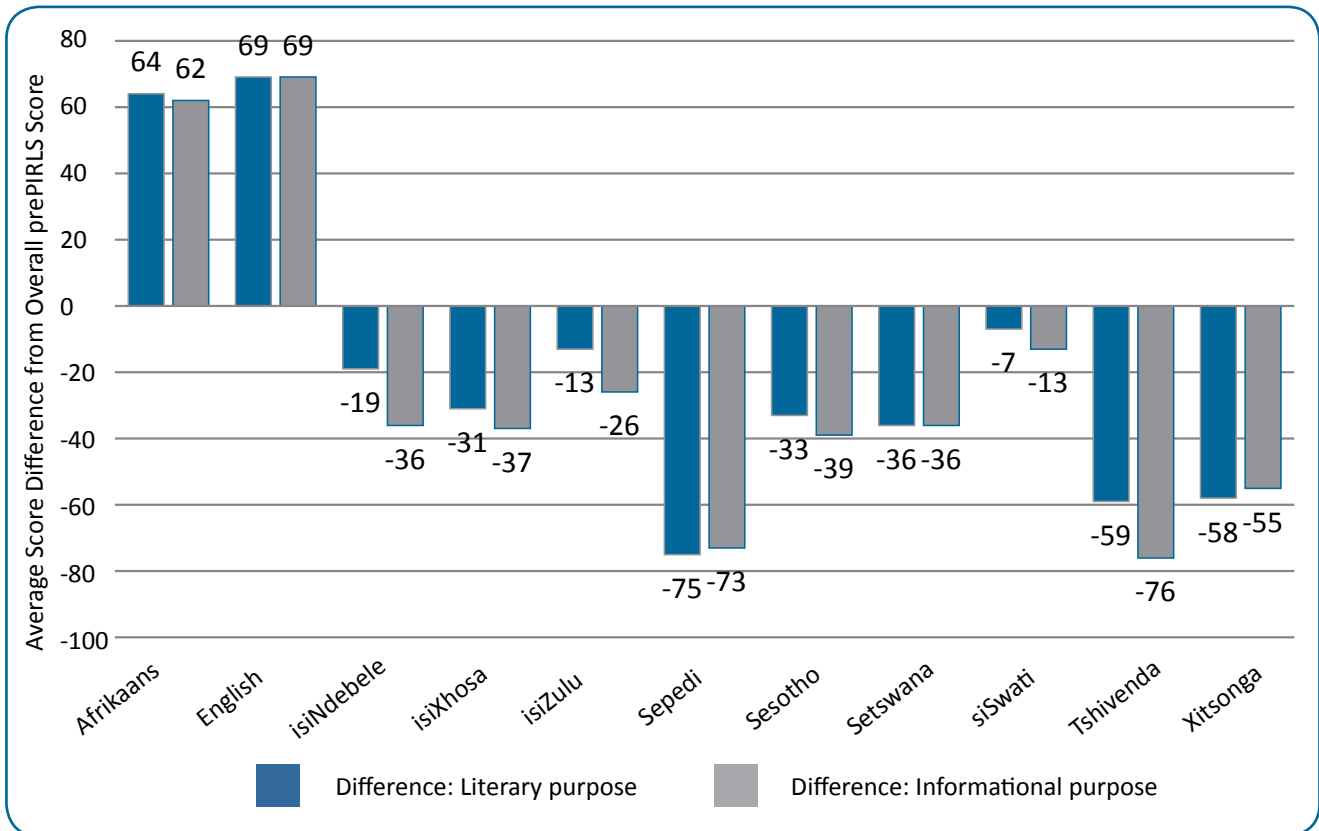
Both the prePIRLS and PIRLS 2011 assessments focus on two purposes for reading, namely reading for literary experience and reading to acquire and use information. Each of these is often associated with specific types of text; for example, fictional material for the former expository, informational articles or instructional texts for the latter. The PIRLS 2011 assessment takes the form of fictional passages when reading for the purposes of literary experience, and informational articles for the purposes of reading to acquire and use information.

There are pronounced differences in achievement across languages when the purposes for reading are analysed, as shown by a comparison between reading scores and overall scores.

**Table 4.3: prePIRLS 2011 Average Achievement for Reading Purposes**

| Language          | Literary purpose | Standard Error (SE) | Difference                           |                       | Standard Error (SE) | Difference                          |  |
|-------------------|------------------|---------------------|--------------------------------------|-----------------------|---------------------|-------------------------------------|--|
|                   |                  |                     | from over-all prePIRLS reading score | Informational purpose |                     | from overall prePIRLS reading score |  |
| <b>Afrikaans</b>  | 525              | 10.3                | +64                                  | 523                   | 10.3                | +62                                 |  |
| <b>English</b>    | 530              | 10.3                | +69                                  | 530                   | 10.6                | +69                                 |  |
| <b>isiNdebele</b> | 442              | 5.3                 | -19                                  | 425                   | 5.2                 | -36                                 |  |
| <b>isiXhosa</b>   | 430              | 11.8                | -31                                  | 424                   | 10.4                | -37                                 |  |
| <b>isiZulu</b>    | 448              | 9.8                 | -13                                  | 435                   | 9.0                 | -26                                 |  |
| <b>Sepedi</b>     | 386              | 8.6                 | -75                                  | 388                   | 8.1                 | -73                                 |  |
| <b>Sesotho</b>    | 428              | 7.4                 | -33                                  | 422                   | 7.2                 | -39                                 |  |
| <b>Setswana</b>   | 425              | 5.3                 | -36                                  | 425                   | 4.7                 | -36                                 |  |
| <b>siSwati</b>    | 454              | 6.1                 | -7                                   | 448                   | 6.3                 | -13                                 |  |
| <b>Tshivenda</b>  | 402              | 7.8                 | -59                                  | 385                   | 7.2                 | -76                                 |  |
| <b>Xitsonga</b>   | 403              | 9.2                 | -58                                  | 406                   | 8.6                 | -55                                 |  |

As indicated by Figure 4.7, only learners who wrote the prePIRLS 2011 assessment in Afrikaans or English were able to perform better in either reading purpose when compared to the overall prePIRLS 2011 South African mean score of 461 points.



**Figure 4.7: Differences from the Overall prePIRLS Mean Scores for Literary and Informational Reading Purposes**



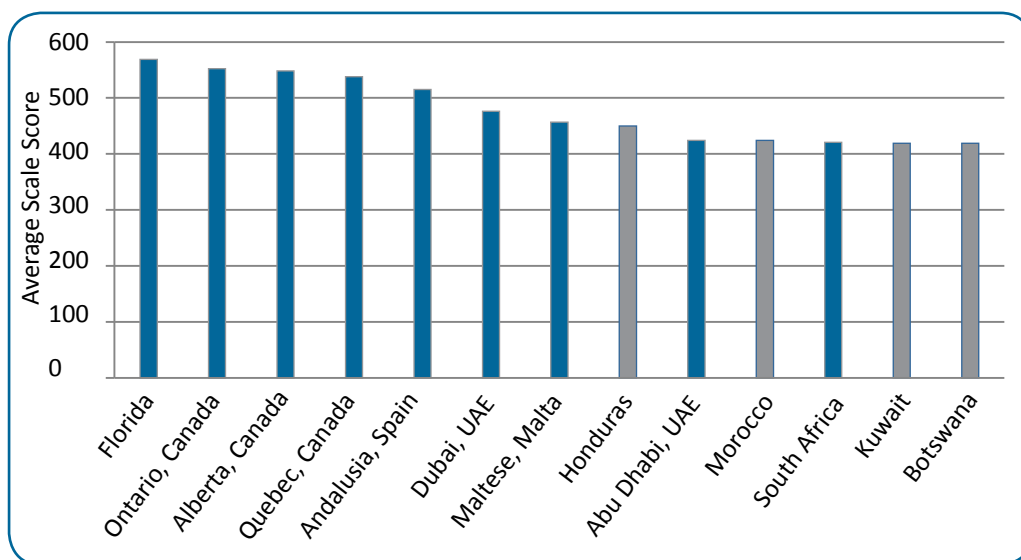
## 4.2 South Africa's Overall PIRLS 2011 Achievement

In this section, the results for the PIRLS study are presented in the order outlined in the introduction to this chapter.

### 4.2.1 South African Grade 5 PIRLS 2011 Overall Results Compared to Other Benchmarking Participants

A comparison of South African Grade 5 learner performance in PIRLS 2011 with other benchmarking participants, including those testing Grade 6 learners, is presented in Figure 4.8. Benchmarking participants *followed the same procedures and met the same standards as the countries participating in PIRLS* (Mullis et al., p.2.) (see Section 4.2.2), but they were mostly regional entities of countries testing sub-populations representing certain languages (for example, the province of Alberta in Canada), and not all languages (for example, Malta and South Africa).

The benchmarking participants in the PIRLS 2011 study are presented in descending order of average reading achievement. Similar to the prePIRLS 2011 international distribution in Section 4.1, a centre point score of 500 with a standard deviation of 100 points was obtained for PIRLS 2011 through the use of item response theory scaling. All achievement scores are presented relative to this International Centre point.



**Figure 4.8: Reading Achievement in PIRLS 2011 for Benchmarking Participants and Countries testing Grade 6 Learners**

Note: Countries marked in grey tested their learners in Grade 6 for benchmarking purposes

South African Grade 5 learners who completed the PIRLS 2011 assessment in Afrikaans or English are listed amongst the benchmarking participants. The South African learners obtained an achievement score of 421 (SE=7.3) (see Figure 4.8), the lowest for benchmarking participants, similar to Abu Dhabi and 148 fewer than Florida (USA), the top performing state listed as a benchmarking participant.

Internationally, South Africa’s performance in PIRLS 2011 is similar to Botswana (419, SE=4.1), Kuwait (419, SE=5.2), and Morocco (424, SE=3.9), all of whom tested their Grade 6 learners, and similar to Abu Dhabi (424, SE=4.7), who tested their Grade 4 learners in the list of benchmarking participants. However, the average achievement for all these countries falls far below the International Centre point score of 500.

#### 4.2.2 South African Grade 5 PIRLS 2011 Overall Results Compared to Reference Countries

South Africa’s average achievement in reading literacy at Grade 5 level is also depicted (in Figure 4.9) in comparison to selected reference countries who are similar to South Africa in performance, of general educational interest, or the top performers in PIRLS 2011.

In total, there were 49 countries participating in PIRLS 2011 (for the complete list of achievement for all these countries, consult Appendix B). The top performing countries included Hong Kong SAR (571, SE=2.3), the Russian Federation (568, SE=2.7), Finland (568, SE=1.9), Singapore (567, SE=3.3) (there was no significant difference in performance between the top 4 countries), and Northern Ireland (558, SE=2.4), all of whom tested their Grade 4 learners. Patterns of achievement for the top performing countries have changed slightly since PIRLS 2006, with Hong Kong SAR replacing the Russian Federation in first position.

These, together with a few other countries, were selected as reference countries in Figure 4.9. Morocco was the only other African country to participate in PIRLS 2006 and also served as reference country in the PIRLS 2006 Summary Report (see Howie, Venter, van Staden, Zimmerman, Long, Du Toit, Scherman & Archer, 2008). As a neighbour of South Africa, Botswana’s results are of interest both for PIRLS and prePIRLS. Testing in Botswana also took place in two languages that were tested in South Africa, namely English and Setswana, but they tested their Grade 6 learners in PIRLS 2011. Abu Dhabi is a benchmarking participant with achievement scores similar to those of South Africa, while Australia and England were included as countries with achievementscoresabove the International Centre point, being of general educational interest to South Africa as many South Africans are currently residing there. Colombia was included as a country that participated in both prePIRLS and PIRLS 2011.

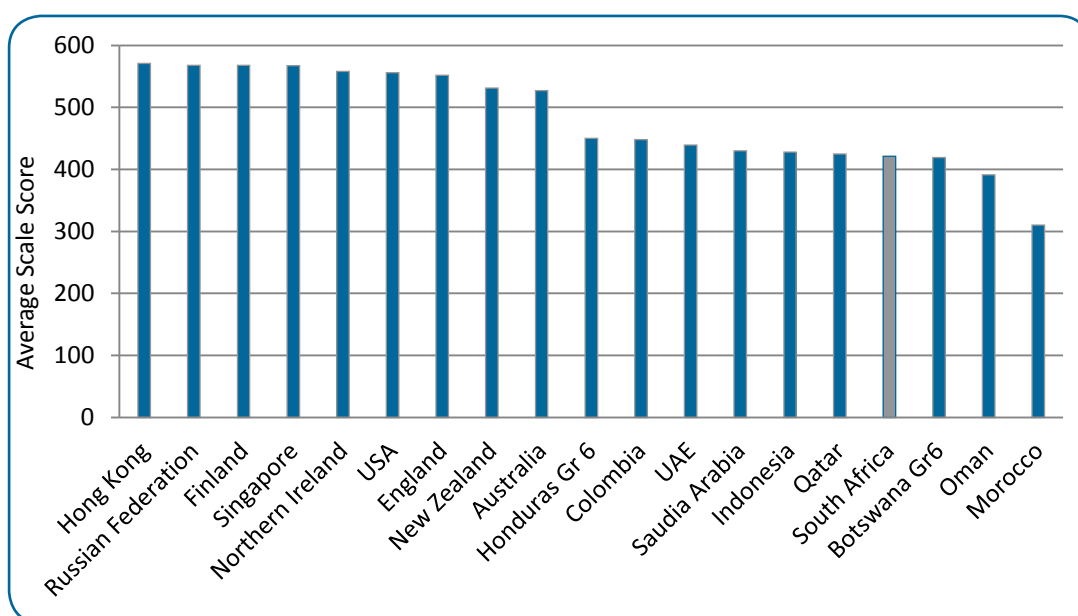


Figure 4.9: South African Grade 5 Overall Learner Performance Compared to Reference Countries

Internationally, South Africa's Grade 5 learners writing in Afrikaans or English in PIRLS 2011 performed at a similar level to Grade 6 learners in Botswana (419, SE=4.1), Kuwait (419, SE=5.2) and Morocco (424, SE=3.9); and to Grade 4 learners in Qatar (425, SE=3.5), Saudi Arabia (430, SE=4.4) and Indonesia (428, 4.2). The South African learners achieved better scores than the Grade 4 learners in Oman and Morocco.

### 4.2.3 South African Grade 5 PIRLS 2011 Performance by Gender

As mentioned above, the international patterns of performance by gender show that girls outperform boys in every country in both PIRLS 2011 and prePIRLS 2011 studies. This pattern has remained consistent over the past decade (Mullis et al., p.7). Internationally, countries with no gender gap include Colombia (that has closed its previous gap in PIRLS 2006), Italy, France, Spain and Israel. Countries with gender gaps exceeding 25 points are largely in the Middle East and/or with Arab backgrounds, such as the UAE, Morocco, Qatar, Trinidad and Tobago, Oman and Saudi Arabia (with the largest gap of 54 points). Significant differences were also found amongst the benchmarking participants, Botswana Grade 6 (28 points), Morocco Grade 6 (35 points), Kuwait Grade 6 (53 points), and Abu Dhabi (36 points). South Africa's gender gap of 26 points was surprising, given its strong gender policy nationally compared to countries which do not have one.

In South Africa, 49% of the PIRLS 2011 sample were female, with the girls outperforming the boys by 434 points (SE=7.72) to 408 (SE=8.7), a 26-point difference (see Figure 4.10).

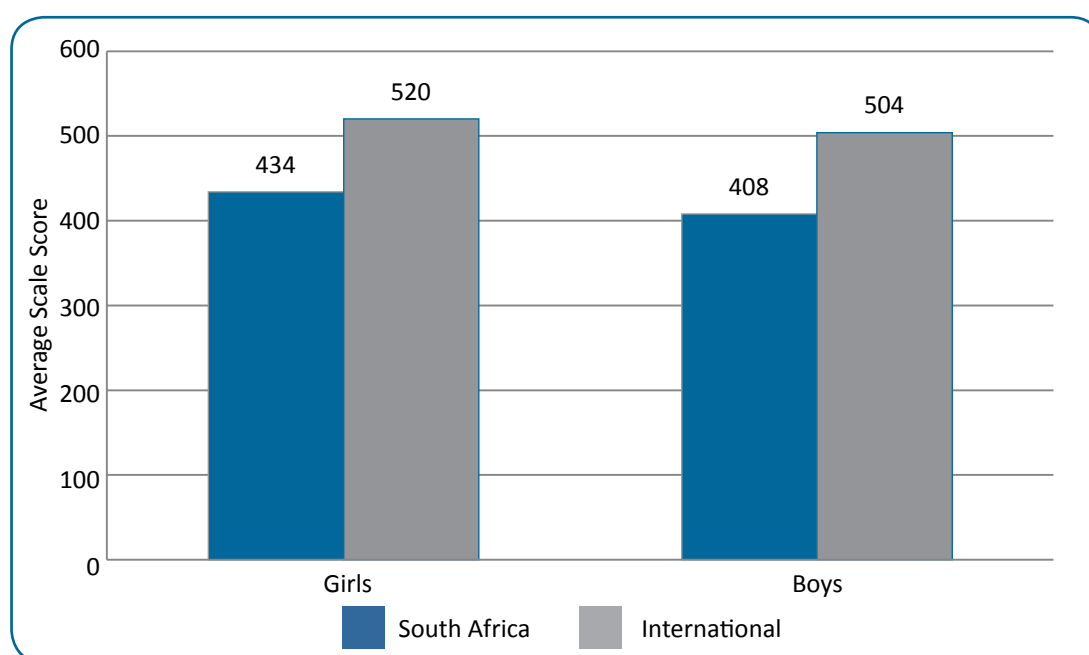
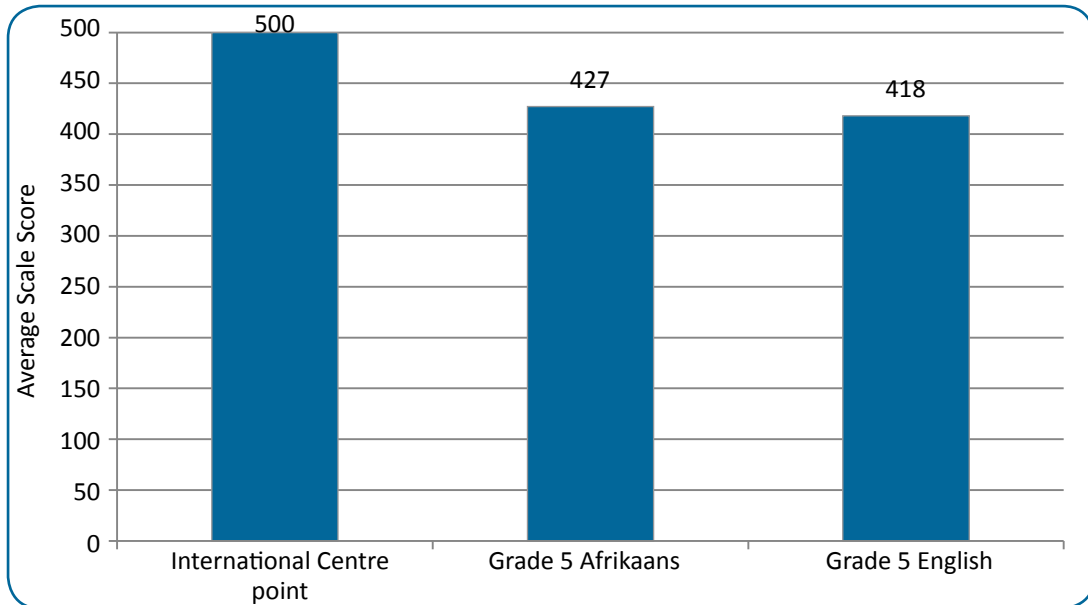


Figure 4.10: South African and International Learner Performance in PIRLS 2011 by Gender

### 4.2.4 South African Grade 5 PIRLS 2011 Performance By Test Language

Only Grade 5 learners who had received instruction in Afrikaans or English in the Foundation Phase were tested, for reasons already explained in previous chapters.

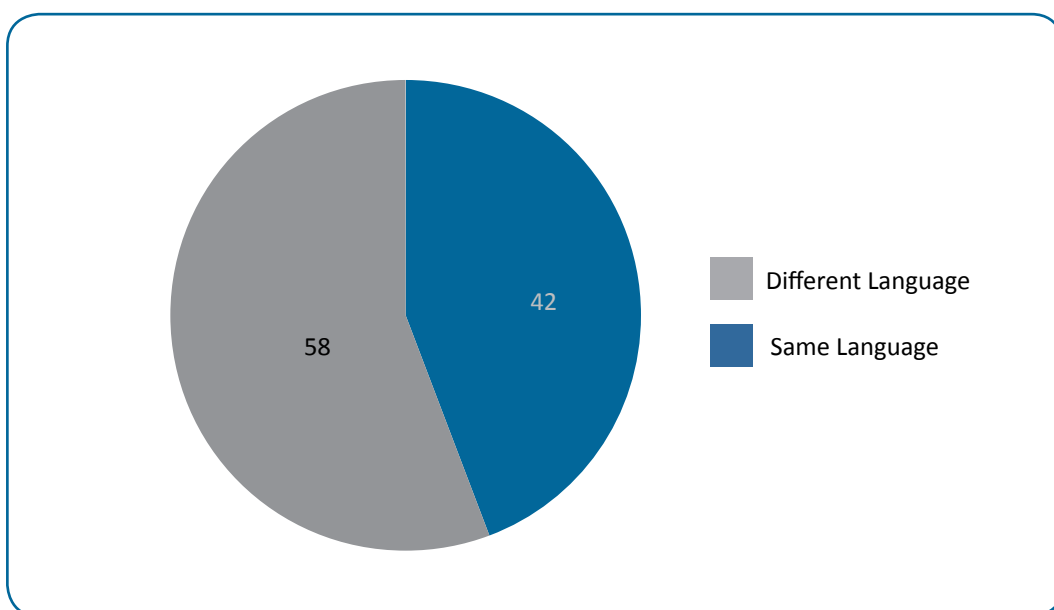


**Figure 4.11: PIRLS 2011 Performance by Test Language**

Grade 5 learners who wrote the PIRLS 2011 assessment in Afrikaans achieved a score of 427 (SE=10.7), not statistically different from the 419 points (SE=8.8) attained by learners who wrote the assessment in English (see Figure 4.11). Both these scores are well below the International Centre point of 500.

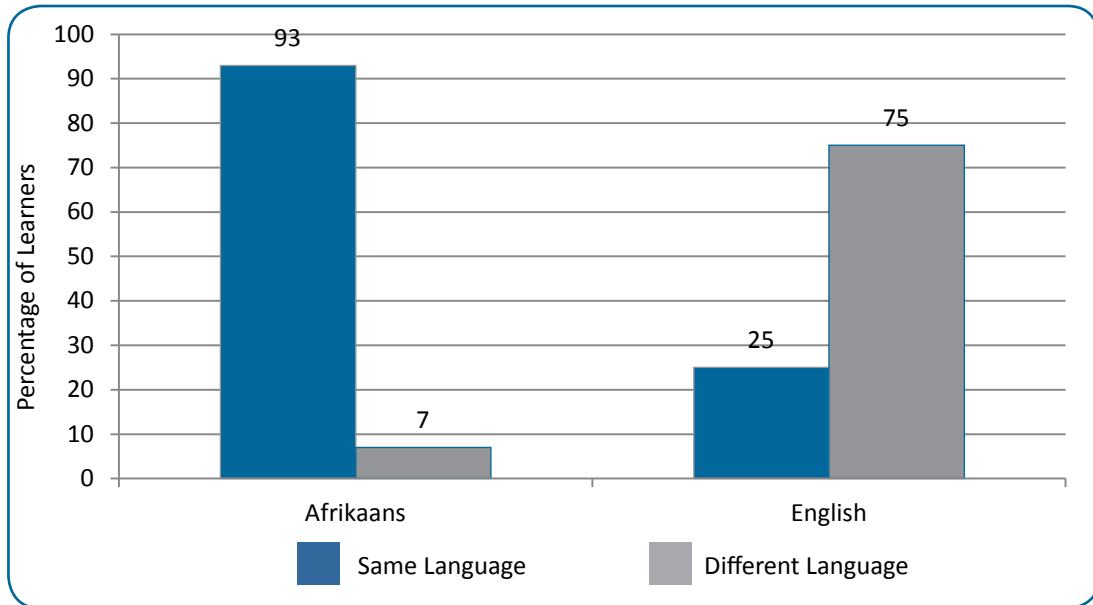
Forty-two percent of learners wrote the PIRLS test in the same language as their home language. Overall, there was no significant difference in the performance of learners, who wrote in Afrikaans or English.

Figure 4.12 shows that for the 42% of Grade 5 learners for whom the language of the test coincided with their home language, reading achievement was at 473 (SE=8.1) points. This reading achievement score is substantially higher than that obtained by the 58% of learners for whom the language of the test and home language differed (390, SE=8.1).



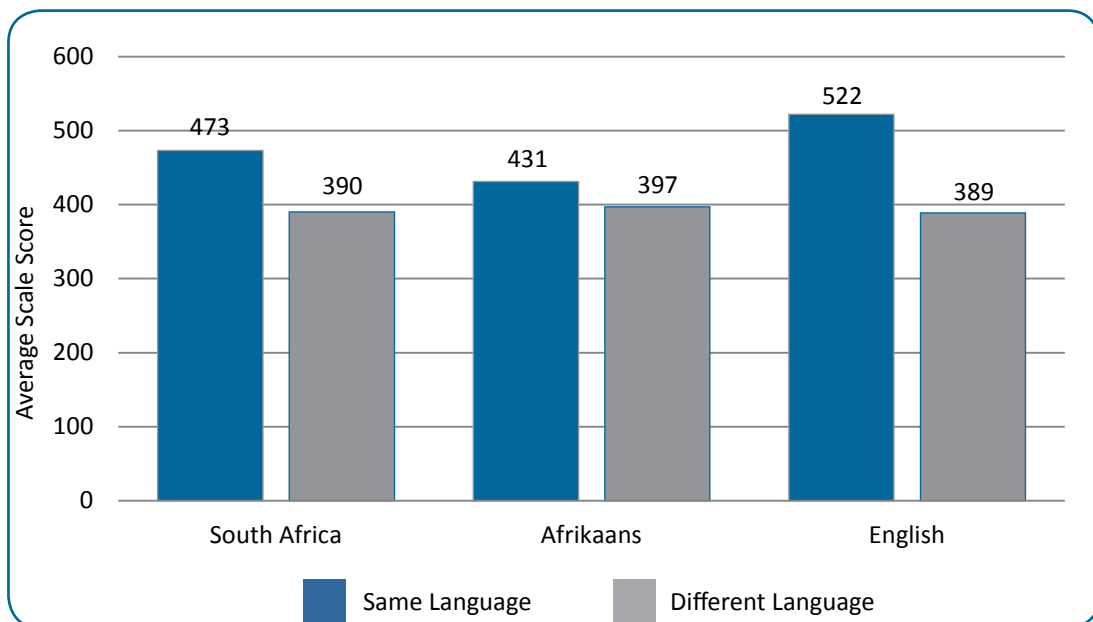
**Figure 4.12: Percentage of Grade 5 Learners whose Home Language coincided or not with the Language of the Test**

Ninety-three percent of Grade 5 learners writing in Afrikaans and 25% of learners writing in English wrote the tests in their home language (see Figure 4.13).



**Figure 4.13: The Percentage of Learners for whom the Language of the Test was the Same as or Different to the Home Language**

The home language group (same) of learners writing in Afrikaans (431, SE=10.8) achieved 34 points more than those not writing in their home language (397, SE=12.6) (see Figure 4.14). The achievement of the home language group of English writers was very different at 523 points (SE=9.6), 134 points more than the English second language group (389, SE=8.4).



**Figure 4.14: South African Grade 5 Learner Performance by Test Language Compared to Home Language**

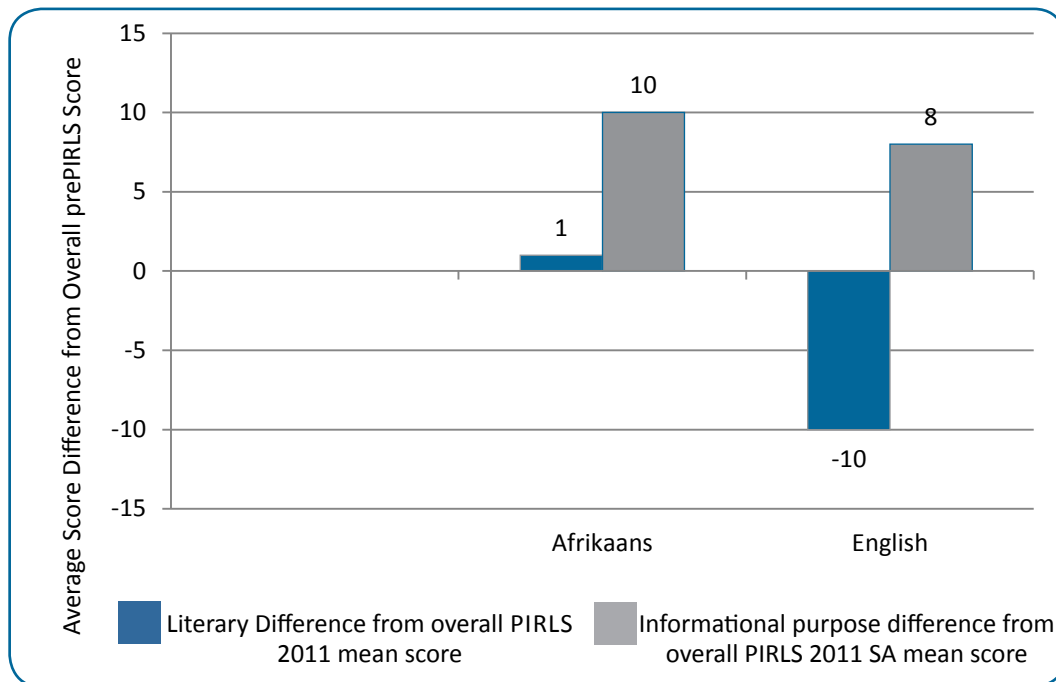
## 4.2.5 South African Grade 5 PIRLS 2011 Average Achievement for Reading Purposes

The average reading achievement across the two purposes for reading for the Grade 5 learners who were tested in Afrikaans or English is presented in Table 4.4.

**Table 4.4: PIRLS 2011 Average Achievement in Reading Purposes**

| Language         | Literary Purpose | Standard Error (SE) | Difference from overall PIRLS 2011 South Africa mean score | Informational Purpose | Standard Error (SE) | Difference from overall PIRLS 2011 South Africa mean score |
|------------------|------------------|---------------------|--|-----------------------|---------------------|--|
| <b>Afrikaans</b> | 422              | 11.7                | +1   | 431 (10.2)            | 10.2                | +10  |
| <b>English</b>   | 411              | 9.0                 | -10  | 429 (8.1)             | 8.1                 | +8   |

Grade 5 learners writing in both languages achieved higher scores on items relating to informational texts rather than to literary texts (see Figure 4.15).



**Figure 4.15: Differences from the Overall PIRLS Mean Scores for Literary and Informational Reading Purposes**

The other international benchmarking participants had different outcomes, with four out of the eight achieving lower scores for informational texts, and two, interestingly both from the UAE, achieving much higher scores. Two of the four overall top countries in PIRLS (Hong Kong SAR and Singapore) achieved significantly higher scores for informational purpose, whilst the Russian Federation and Finland achieved about the same score for informational and literary purposes. There appeared to be a pattern, with learners in Asia and the Middle East achieving higher scores on the informational passages, whilst those from Western countries achieved higher scores on the literary purpose or showed no difference between literary and informational scores.

In South Africa, there were larger differences between learners' achievement on the literary purpose (11 points), with those writing in Afrikaans achieving higher scores. This was not the case on the informational purpose, where there was only a 2-point difference. However, substantial differences in scores are apparent for informational achievement when compared to the overall PIRLS 2011 achievement scores. For both Afrikaans and English, achievement in this subset is substantially higher than the overall PIRLS 2011 scores.

### 4.3 PIRLS 2011 Performance Compared to PIRLS 2006

In this section, the performance in PIRLS 2011 is compared to that of PIRLS 2006, when South Africa's first participation in PIRLS as an international comparative study took place.

In 2006, Grades 4 and 5 learners were tested in all 11 official languages. Results for PIRLS 2006 indicated severe underperformance, with Grade 4 learners achieving an average score of 253 (SE=4.6) and Grade 5 learners 302 (SE=5.6), the international mean being 500. While the 49-point difference between the two South African grades tested meant that some measurable progress was present as learners advanced from Grade 4 to Grade 5, the country's overall performance was last in the list of the 45 participating education systems and far below the international average of 500.

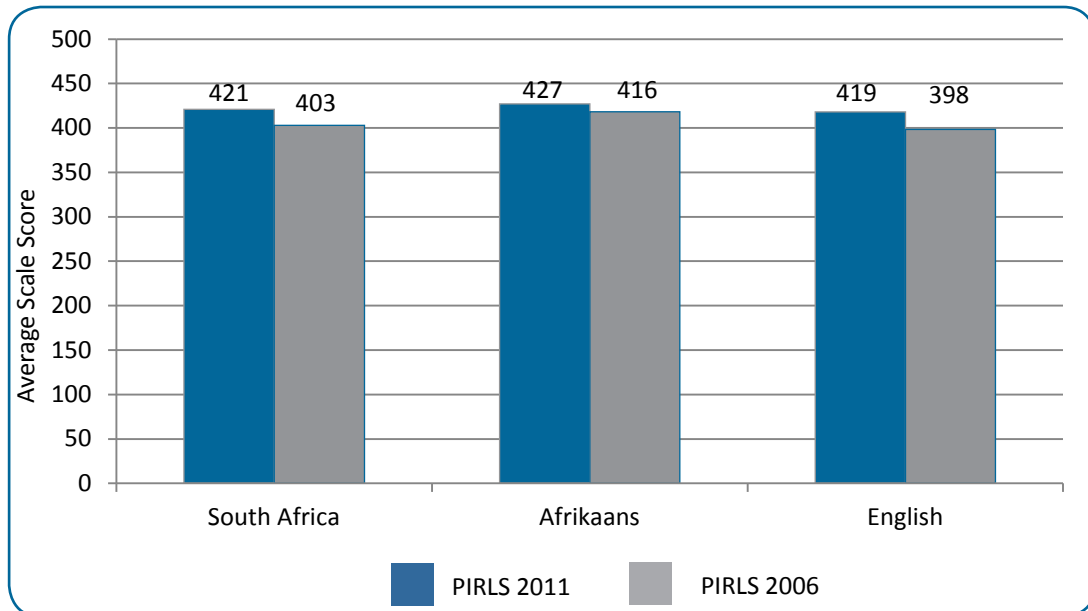
In PIRLS 2011, only Grade 5 Afrikaans and English learners were tested. With the IEA's introduction of prePIRLS to provide countries that had underperformed in 2006 with an opportunity to obtain more accurate estimates of achievement, the South African study tested Grade 4 learners in all 11 official languages. Therefore, in this section, trend data is only reported for the Grade 5 learners and specifically based only upon those writing in Afrikaans or English.

#### 4.3.1 Trends <sup>24</sup> In Overall Reading Achievement (PIRLS 2006 - PIRLS 2011)

The achievement for Grade 5 Afrikaans and English learners in PIRLS 2006 and in PIRLS 2011 is presented in Figure 4.16. Overall, learners writing the test in Afrikaans or in English achieved 403 (12.4) in PIRLS 2006, with a substantial increase in achievement to 421 (7.3) in the PIRLS 2011 study. Statistically however, the results in 2011 are still not significantly different to those of 2006.

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24. As a trend study, the PIRLS assessment is designed to retain some reading passages (while also introducing some new passages to ensure released passages are replaced and that the assessment remains updated) from one cycle of testing to the next. In this way, countries are enabled to measure trends and changes over time in reading literacy achievement.

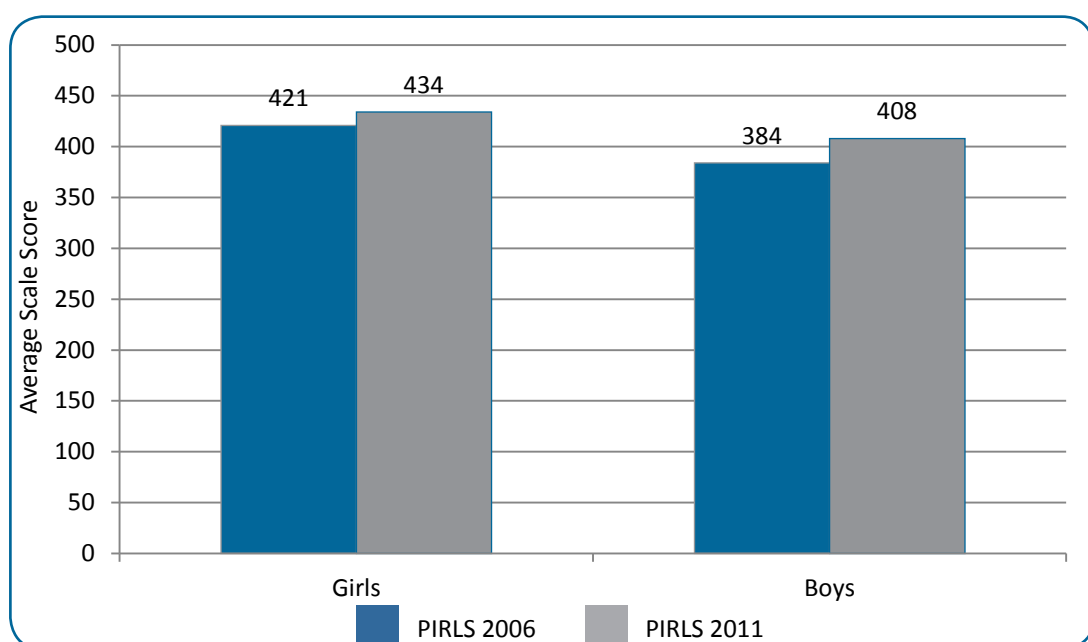


**Figure 4.16: Grade 5 Overall Performance and by Language for PIRLS 2006 and PIRLS 2011**

There was no change in achievement between the two studies for learners writing in either Afrikaans or English (see Figure 4.16). Learners who wrote the PIRLS 2011 assessment in Afrikaans achieved 427 (SE=10.7) compared to 416 (SE=11.9) in 2006. Those writing in English achieved 419 (SE=8.8) in PIRLS 2011 compared to 398 (SE=17.1) in PIRLS 2006. Neither groups achieved significantly higher scores in 2011.

### 4.3.2 Trends in Reading Achievement by Gender

Internationally, there remains a persistent gap in achievement in reading between girls and boys, with girls outperforming boys. A few countries, such as Colombia, France and Italy, have managed to significantly reduce the achievement gap between the genders from PIRLS 2006 to PIRLS 2011. The only country to have an increase in the achievement gap between genders is the Russian Federation.



**Figure 4.17: South African Grade 5 Performance by Gender for PIRLS 2006 and PIRLS 2011**



Amongst the South African Grade 5 learners, the overall gap between boys and girls was reduced from 37 points in 2006 to 26 points in 2011 (see Figure 4.17), which is a promising trend. In both studies, girls achieved higher scores, with girls scoring 421 points in 2006 compared to 434 in 2011.

#### 4.4 Conclusions

This chapter has summarised South African learner performance in both prePIRLS 2011 and the PIRLS 2011 assessment. It explored learner achievement scores for both studies against variables such as language of the test and home language, gender and performance in comparison with reference countries. A comparison between the PIRLS 2006 results and those of PIRLS 2011 was also made.

Overall achievement results for prePIRLS 2011 point to a relatively low achievement when compared to the performance of Colombia and the International Centre point. The overall PIRLS 2011 achievement results compared fairly favourably with the international benchmarking countries and other developing countries, however, as the performance applied only to learners tested in Afrikaans or English, this has to be taken into consideration.

There was no significant difference in the overall performance of PIRLS 2011 Grade 5 Afrikaans and English learners when compared to 2006. Separate analysis of the Afrikaans and English groups show different patterns of improvement from PIRLS 2006 to PIRLS 2011 for both these languages.

prePIRLS 2011 results illustrate that girls still outperform boys, a pattern confirmed not only by international results, but also by the PIRLS 2006 results that were based on a national sample of learners from all 11 official languages. The same pattern was observed for PIRLS 2011.

Both prePIRLS and PIRLS 2011 results point to low performance that is consistently below the International Centre point score of 500. While PIRLS 2011 results are only available for learners who completed the assessment in Afrikaans or English, prePIRLS results point to consistent under-performance by learners from the African languages, with higher achievement for learners who completed the assessment in Afrikaans or English. Whilst most learners writing prePIRLS wrote in their home language, this was not especially the case for the Grade 5 learners tested in English. prePIRLS 2011 reveals that where test language and home language coincided, achievement was better in most of the 11 languages with the exception of Afrikaans, isiZulu and Sepedi where there was no significant difference. PIRLS 2011 also confirmed a higher performance for Grade 5 learners when test language and home language was the same on a national level. This result was also observed for both the Afrikaans and English Grade 5 groups tested.



## CHAPTER 5

# PERFORMANCE AT THE INTERNATIONAL BENCHMARKS OF READING ACHIEVEMENT

In this chapter, the performance of the South African learners in Grade 4 prePIRLS and Grade 5 PIRLS on the international benchmarks is described. Firstly, a description of the benchmarks is provided, followed by the results for the Grade 4 learners in prePIRLS in all 11 languages and the Grade 5 learners' results in PIRLS. Each set of results is presented in the following order: the overall results with international comparisons, the national performance by language of the test, then performance by gender. Finally, in addition to these results, the Grade 5 results for PIRLS 2011 are compared in a trend analysis with the PIRLS 2006 results overall, by language and by gender.

### 5.1 Introduction to International Benchmarks

The prePIRLS and PIRLS 2011 assessments measure learner reading achievement with a variety of literary and informational texts (see Chapter 3), with the assessment being divided evenly between these two purposes of reading. Questions that accompany each reading text were designed to target selected processes of comprehension and assess learner ability to:

|  | PIRLS | prePIRLS |
|--|-------|----------|
| <ul style="list-style-type: none"><li>• <b>Focus on and retrieve explicitly stated information.</b> Identifying information that is relevant to the specific goal of reading, include looking for specific ideas, searching for definitions, words or phrases, identifying the setting of a story (e.g., in terms of time or place), and finding the main idea when explicitly stated.</li></ul>   | 20%   | 50%      |
| <ul style="list-style-type: none"><li>• <b>Make straightforward inferences.</b> Reading tasks that might exemplify this type of text processing, include inferring that one event caused another event, concluding the main point by making a series of arguments, determining the referent of a pronoun, identifying generalisations made in the text, and describing the relationship between two characters.</li></ul>  | 30%   | 25%      |
| <ul style="list-style-type: none"><li>• <b>Interpret and integrate ideas and information.</b> Reading tasks that may exemplify this type of text processing include discerning the overall message or theme of a text, considering alternative actions by characters, comparing and contrasting text information, inferring a story's mood or tone, and interpreting a real-world application of text information.</li></ul>   | 30%   | 25%      |
| <ul style="list-style-type: none"><li>• <b>Evaluate and examine content, language and textual elements.</b> Reading tasks that may exemplify this type of text processing include evaluating the relative likelihood that the course of events described in the text could really happen, describing how the author devised a surprise ending, judging the completeness or clarity of information in the text, and determining an author's perspective on the central topic.</li></ul> | 20%   | 0%       |

**Table 5.1: International Benchmarks of Reading Achievement**

| <b>Advanced International benchmark</b>     |  |
|---|--|
| <b>625</b>                                  | <p>When reading Literary texts, learners can:</p> <ul style="list-style-type: none"> <li>• Integrate ideas and evidence across a text to appreciate overall themes</li> <li>• Interpret story events and character actions to provide reasons, motivations, feelings and character traits with full text-based support</li> </ul> <p>When reading Information texts, learners can:</p> <ul style="list-style-type: none"> <li>• Distinguish and interpret complex information from different parts of text and provide full text-based support</li> <li>• Integrate information across a text to provide explanations, interpret significance and sequence activities</li> </ul>   |
| <b>High International benchmark</b>         |  |
| <b>550</b>                                  | <p>When reading Literary texts, learners can:</p> <ul style="list-style-type: none"> <li>• Locate and distinguish significant actions and details embedded across the text</li> <li>• Make inferences to explain relationships between intentions, actions, events and feelings, and give text-based support</li> <li>• Interpret and integrate story events and character actions and traits from different parts of text</li> <li>• Evaluate the significance of events and actions across the entire story</li> <li>• Recognise the use of some language features (e.g. metaphor, tone, imagery)</li> </ul> <p>When reading Information texts, learners can:</p> <ul style="list-style-type: none"> <li>• Locate and distinguish relevant information within a dense text or a complex table</li> <li>• Make inferences about logical connections to provide explanations and reasons</li> <li>• Integrate textual and visual information to interpret the relationship between ideas</li> <li>• Evaluate content and textual elements to make generalisations</li> </ul> |
| <b>Intermediate International benchmark</b> |  |
| <b>475</b>                                  | <p>When reading Literary texts, learners can:</p> <ul style="list-style-type: none"> <li>• Retrieve and reproduce explicitly stated actions, events and feelings</li> <li>• Make straightforward inferences about the attributes, feelings and motivations of main characters</li> <li>• Interpret obvious reasons and causes and give simple explanations</li> <li>• Begin to recognise language features and style</li> </ul> <p>When reading Information texts, learners can:</p> <ul style="list-style-type: none"> <li>• Locate and reproduce two or three pieces of information from within the text</li> <li>• Use subheadings, text boxes and illustrations to locate parts of the text</li> </ul>   |
| <b>Low International benchmark</b>          |  |
| <b>400</b>                                  | <p>When reading Literary texts, learners can:</p> <ul style="list-style-type: none"> <li>• Locate and retrieve an explicitly stated detail</li> </ul> <p>When reading Information texts, learners can:</p> <ul style="list-style-type: none"> <li>• Locate and reproduce two or three pieces of information from within the text</li> <li>• Use subheadings, text boxes and illustrations to locate parts of the text</li> </ul>   |

Source: Mullis et al., 2012

The benchmarks were set by a team comprising the International Study Centre together with members of the PIRLS 2011 Reading Development Committee, to conduct detailed scale anchoring analysis that described reading achievement at the benchmarks (See Mullis et al., 2012 for more details). In effect, the benchmarks are a qualitative description of learner performance at different levels in order to describe their competencies at each of the set scores.

The aim of the benchmarks is to provide fairly detailed qualitative descriptions of learner performance on a scale in relation to each of the questions asked. The range of performance shown by learners is represented by four benchmarks: the Advanced (625 points), the High (550 points), the Intermediate (475 points), and the Low (400 points). The descriptions of each of these are cumulative, meaning that learners who were able to reach the higher ones could also demonstrate knowledge and skills associated with the lower ones.

The PIRLS 2011 International Results in Reading Report (Mullis et al., 2012) describes the international benchmarks as in Table 5.1.

## 5.2 South African Grade 4 Learner Performance on prePIRLS 2011 International Benchmarks

The following sections provide information on the prePIRLS 2011 overall benchmark performance and performance by language and by gender.

### 5.2.1 South African Grade 4 prePIRLS 2011 Overall Benchmark Performance

Almost one out of three South African learners (29%) could not reach the Low International benchmark (see Figure 5.1). Most Grade 4 learners (71%) reached the Low International benchmark with 30% not able to attain more than the Low International benchmark. A very small number (6%) reached the Advanced International benchmark.

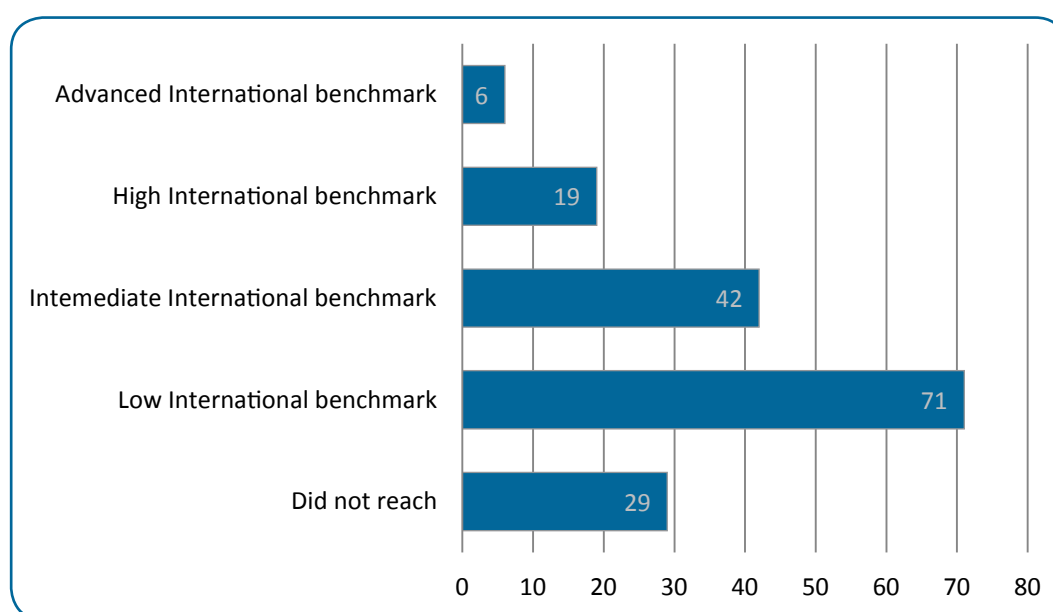


Figure 5.1: Overall South African prePIRLS 2011 Distribution of Benchmarks reached

## 5.2.2 South African Grade 4 prePIRLS 2011 Benchmark Performance by Language

One of the most informative results from PIRLS 2006 was the benchmark performance of the learners for each of the languages tested. This proved valuable in informing the education system about where interventions were most critically needed and for which language.

In prePIRLS 2011, a similar opportunity is available. From the analysis of the performance for each language, it is once again evident that the attainment of the international benchmarks varied substantially across the 11 languages (see Figure 5.2); for instance, the percentage of learners who did not attain the Low International benchmark varied from 10% to 57%. The highest performing groups were those learners assessed in Afrikaans or English, very few of whom failed to reach the Low International benchmark, indicating that basic reading literacy is present in these languages. One out of five learners writing in English, and one out of about seven in Afrikaans also reached the Advanced level, the highest international benchmark.

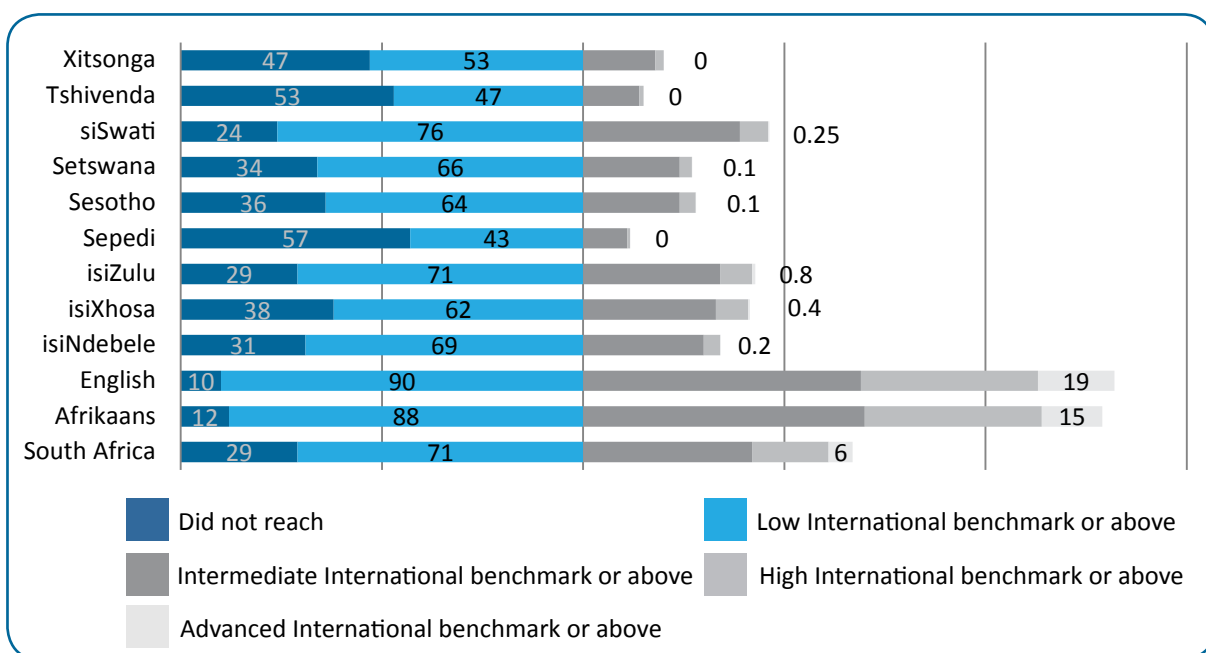


Figure 5.2: Percentage of Learners reaching the prePIRLS International Benchmarks per Language

In contrast, across all those learners writing in the African languages, about one-quarter to one-half could not attain the Low International benchmark, indicating that a high percentage of learners in the African languages could not read. The most severe cases were learners assessed in Sepedi (57%) and Tshivenda (53%), who could not read at a basic level. Learners assessed in siSwati appeared to have the largest percentage of learners 76% attaining the international benchmarks (at the lowest) out of the African languages, followed by those assessed in isiZulu (71%) and isiNdebele (69%). A small percentage of learners assessed in African languages reached the Advanced International benchmark, but less than 1% of learners tested in siSwati, Setswana, Sesotho, isiXhosa, isiZulu and isiNdebele did so, with the largest proportion of learners being those assessed in isiZulu (0.8%).

### 5.2.3 South African Grade 4 prePIRLS 2011 Benchmark Performance by Gender

As highlighted in Chapter 4, girls outperformed boys, both internationally and in South Africa. Overall, girls performed at a much higher level than boys in South Africa (see Figure 5.3) and larger proportions of girls are reading at the highest levels with 21% having reached the High or Advanced benchmarks compared to 16% of boys. Whilst most girls are able to read at basic level, this is not the case for boys of the same age. Approximately one out of three boys did not reach the Lowest International benchmark compared to about one in five girls.

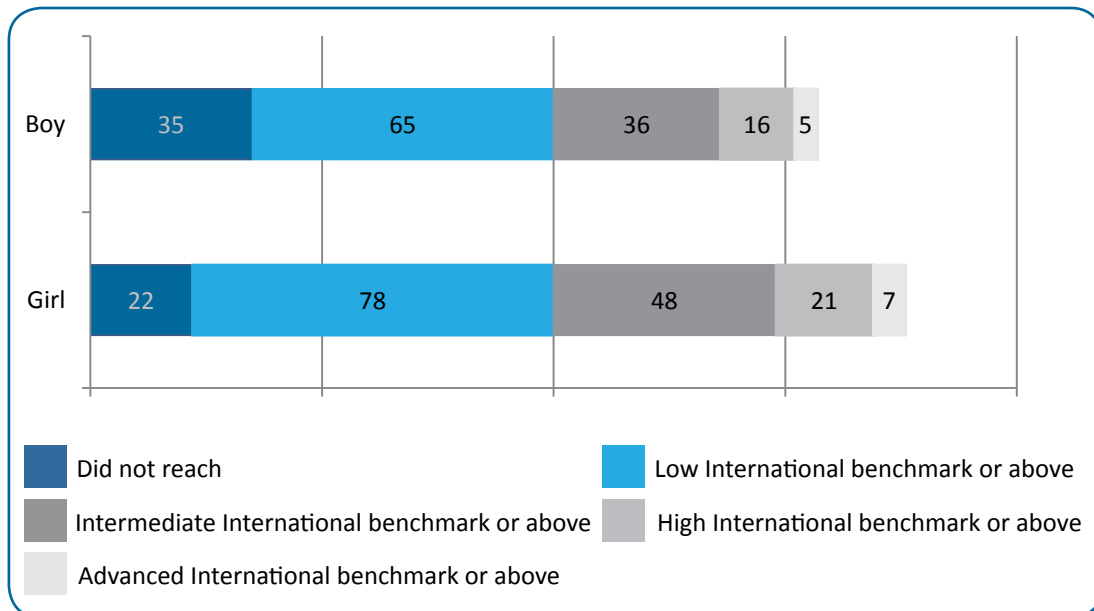


Figure 5.3: Grade 4 prePIRLS Achievement on International Benchmarks by Gender

### 5.3 South African Grade 5 Learners' Performance on PIRLS 2011 International Benchmarks

Internationally, countries with the highest average achievement had a greater percentage of learners reaching each benchmark than those who, on average, had a lower achievement. For example, nearly a quarter (24%) of learners in Singapore and almost one out of five learners in the Russian Federation and Northern Ireland (19%) reached the Advanced International benchmark (Mullis et al., 2012, p 8). At the other end of the scale, 100% of the learners in The Netherlands and more than 97% of learners in 20 countries reached the Low International benchmark, representing universal reading competency. Only in countries such as Morocco (79%) and Oman (53%) did more than 50% of the learners fail to meet the Low International benchmark.

The following sections provide information on the South African learners assessed in Afrikaans or English and how they performed against the PIRLS 2011 international benchmarks. Firstly, the overall benchmark performance is presented, followed by the benchmark performance by language and by gender. Finally, analysis is made of the trends in performance from PIRLS 2006 to PIRLS 2011.

### 5.3.1 South African Grade 5 Learner Performance on PIRLS 2011 International Benchmarks Overall and by Language

Overall, 43% of the South African Grade 5 learners did not attain the Low International benchmark, in contrast to 5% internationally (see Figure 5.4). Almost 4% reached the Advanced International benchmark, compared to 8% internationally. Overall, South African Grade 5 learners who participated in the PIRLS 2011 study lag behind most countries in the study in the attainment of higher international benchmarks.

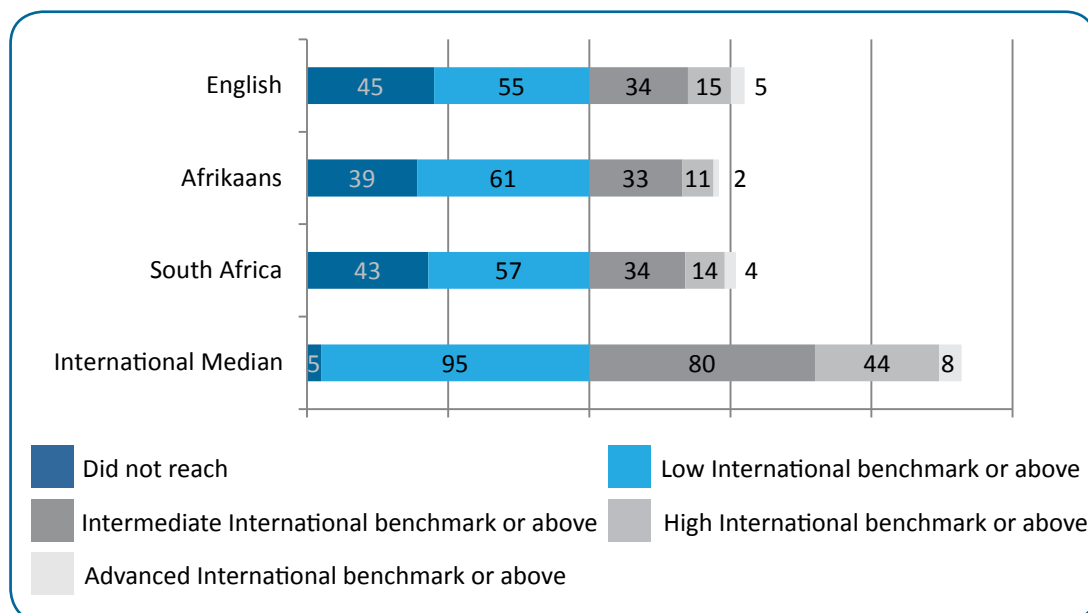


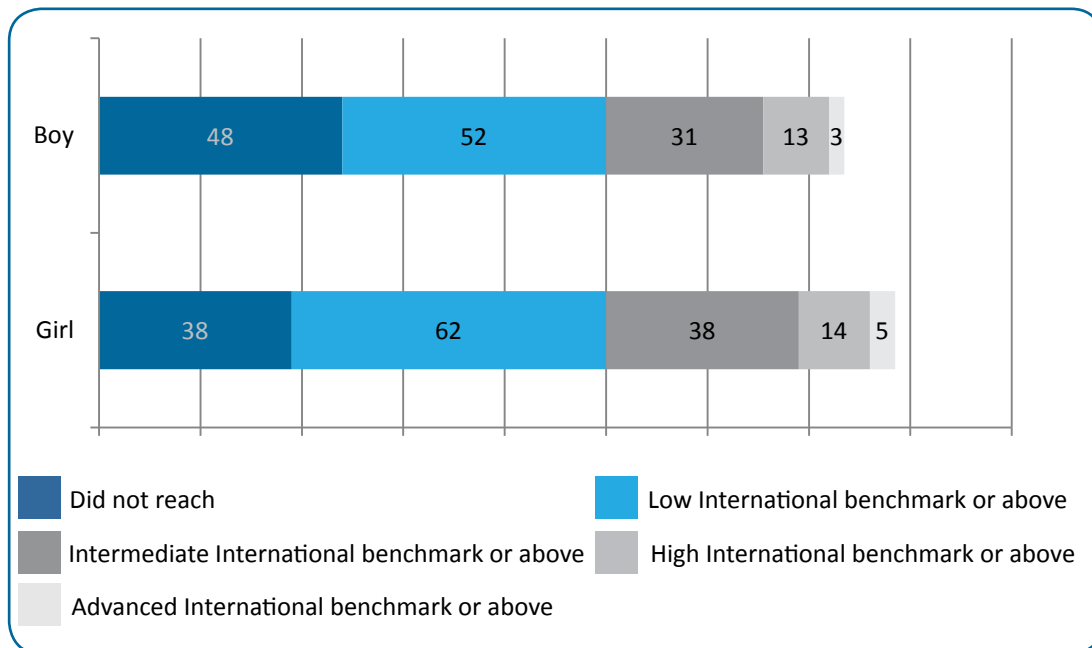
Figure 5.4: Percentage of Learners reaching the PIRLS 2011 International Benchmarks by Test Language

A larger proportion of the learners assessed in Afrikaans reached the Low International benchmark (61%) compared to 55% of those who wrote in English. One possible explanation is that 70% of those tested in English were writing in a second language, whereas almost all learners writing in Afrikaans were doing so in their home language. Sixty-one percent is still well below the international figure of 95% who attained the Low International benchmark. However, the top performing group was greater in English, with about 15% of learners assessed in English having achieved the Advanced and High International benchmarks compared to about 11% of those tested in Afrikaans.

### 5.3.2 South African Grade 5 Learners Performance on PIRLS 2011 International Benchmarks by Gender

A similar pattern of gender performance was found for PIRLS, where girls performed at a higher level than boys (see Figure 5.5). However, in contrast to the prePIRLS, the proportions of boys to girls at the highest benchmarks are very similar, with 13% of boys and 14% of girls reaching the High and Advanced International benchmarks. Whilst almost one out of two boys did not reach the Low International benchmark, this was not the case for girls, with fewer than four out of ten failing to reach the Low International benchmark.





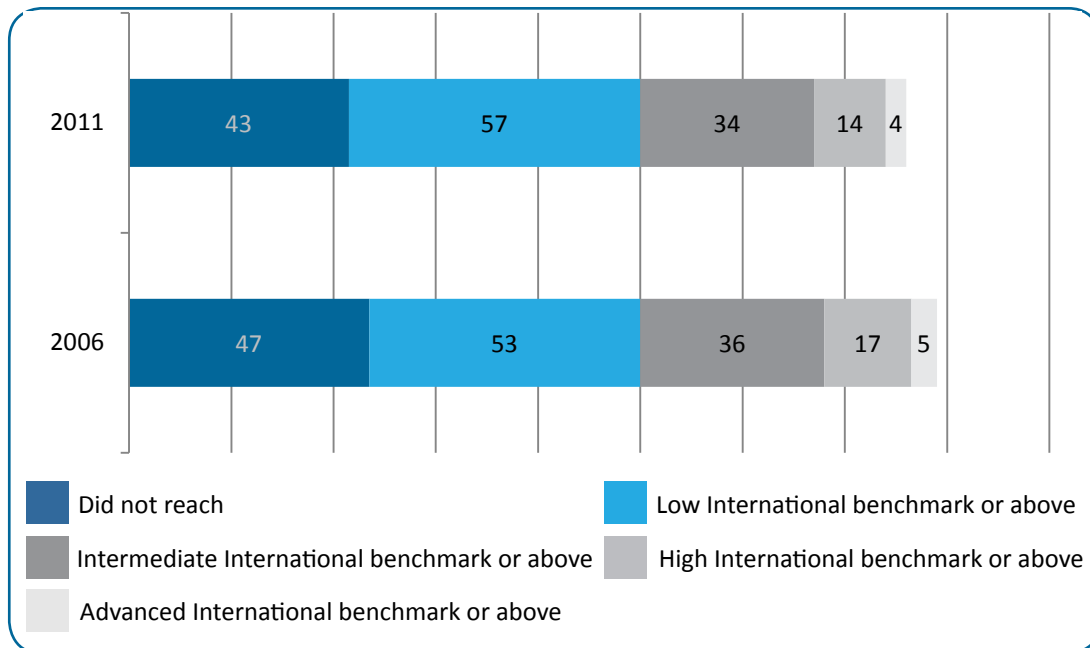
**Figure 5.5: South African Grade 5 Learner Performance on International Benchmarks in PIRLS 2011 by Gender**

### 5.3.3 Trends in South African Grade 5 Learner Performance on PIRLS 2011 International Benchmarks Overall

Internationally, between PIRLS 2011 and PIRLS 2006, there were changes across countries in terms of reaching certain international benchmarks. Several of the top performing countries improved the percentages of children reaching the top benchmarks, including Singapore, with 5% more reaching the Advanced International benchmark (to 24%), England and Hong Kong SAR (to 18%), and the USA (to 17%).

As with other trend analyses conducted for PIRLS 2011 and PIRLS 2006, only trends for the Grade 5 learners writing in Afrikaans or English can be calculated (see Figure 5.6).

A larger percentage of learners managed to attain the Low International benchmark in 2011 than in 2006. However, of concern is that the percentage of learners attaining the High and Advanced International benchmarks appears to have dropped from 17% in 2006 to 14% in 2011.

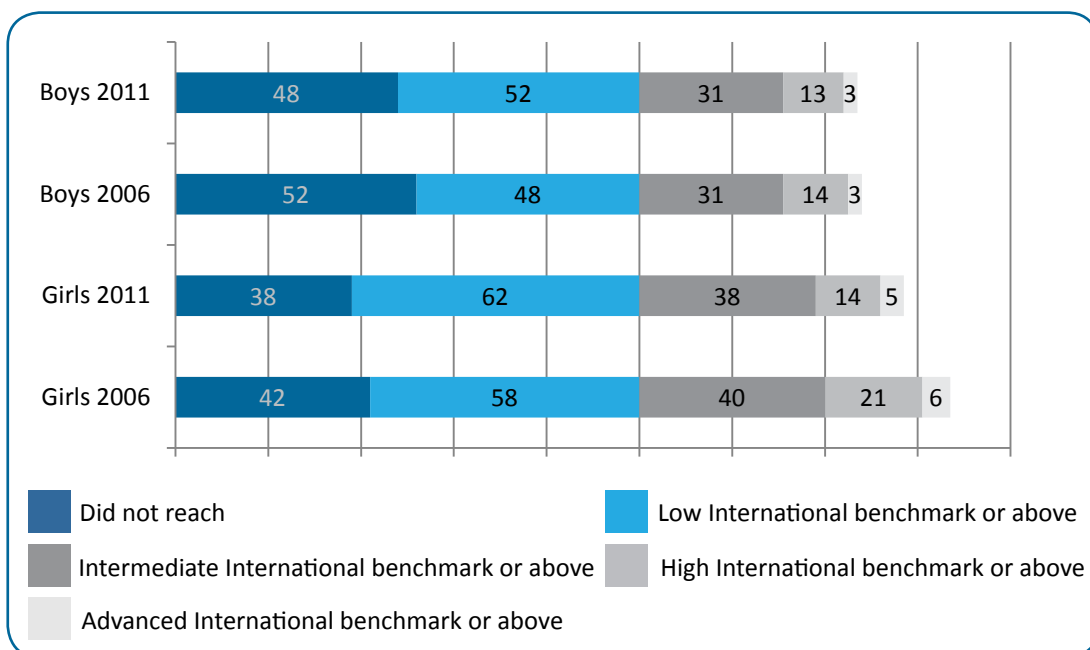


**Figure 5.6: Trends in Percentages of Grade 5 Learners reaching the International Benchmarks for Reading Achievement**

Similar patterns for the highest achieving group appear with 4% attaining the Advanced level in 2011 compared to 5% in 2006.

### 5.3.4 Trends In South African Grade 5 Learners' Performance on PIRLS 2011 International Benchmarks by Gender

Given the significant difference in performance between the girls and boys in both prePIRLS and PIRLS, the question arose as to where the differences lay regarding the benchmarks. The benchmarks were analysed in terms of what changes had occurred since 2006 relating to the performance.



**Figure 5.7: Trends in Percentages of Learners reaching the International Benchmarks of Reading Achievement by Gender**

There appeared to be a shift at the lower end of the achievement, with fewer boys and girls failing to reach the international benchmarks and more boys and girls attaining the Low International benchmark than previously. However, 62% of girls reached the Low International benchmark compared to only 52% of boys. Of concern here is that the percentage of girls reaching the High International benchmark has dropped from 21% to 15%, and therefore, whilst the achievement is higher for girls than boys overall in both 2006 and in 2011, the proportion of high achieving girls appears to have dropped.

## 5.4 Conclusions

This chapter has presented the South African Grade 4 prePIRLS 2011 and Grade 5 PIRLS 2011 benchmark achievement. A description of the different benchmarks and processes of comprehension associated with the prePIRLS and PIRLS assessments was also provided.

The majority of Grade 4 learners who participated in prePIRLS 2011, tested in all 11 official languages, were able to reach the Low International benchmark. Overall, more than 70% reached the Low International benchmark at 400 points. However, there was a significant difference between test languages, with much larger percentages of learners tested in Afrikaans and English reaching the international benchmarks (88-90%), compared to 43-76% of learners in African languages. More than half of the learners who were tested in Sepedi and Tshivenda did not reach the Low International benchmark. Grade 4 learners tested in Afrikaans or English were better able to illustrate achievement in all four benchmark levels, with 15% or more of these learners reaching the Advanced International benchmark in these test languages.

More than half of South African learners (57%) tested in Afrikaans or English in PIRLS 2011 achieved the Low International benchmark. There are considerable concerns with 43% of these learners who failed to reach the Low International benchmark.

There were substantial differences in achievement between the two languages tested. While all Grade 5 learners who wrote the PIRLS 2011 assessment in Afrikaans or English were able to illustrate achievement on each of the international benchmarks, trend analysis from PIRLS 2006 to PIRLS 2011 shows some improvement in higher percentages of learners being able to reach each benchmark and a lower percentage not being able to reach the Low International benchmark.



## CHAPTER 6

# LEARNERS AND THEIR HOME ENVIRONMENT SUPPORT FOR READING ACHIEVEMENT

A considerable amount of research has been conducted internationally over the past 40 years into the importance of the home environment and how this supports children's positive achievement in education. From the IEA's reading-related studies, strong positive relationships have been found between the home experiences fostering early literacy development, reading literacy and reading achievement.

In this chapter, some of the important attributes in terms of attitudes and behaviour towards reading, and the home environment, which may possibly have shaped some of these, are described. Firstly a brief profile of the learners is given, followed by a description of their attitudes to reading, their reading self-concept, confidence and behaviour. This is followed by a description of the resources available at home, parental education and attitudes, and their educational expectations for their children. The findings are presented first for Grade 4 prePIRLS and thereafter, for Grade 5 PIRLS learners.

### 6.1 Profile of the Grade 4 Learners in prePIRLS

The average age of the Grade 4 learners was 10.5 years and almost half were girls. Most spoke the language of the test before they went to school (79%) (see Figure 6.1); however, it would appear that there was no substantial difference overall in achievement between those who did speak the language of the test before school (465 points) and those who did not (462 points).

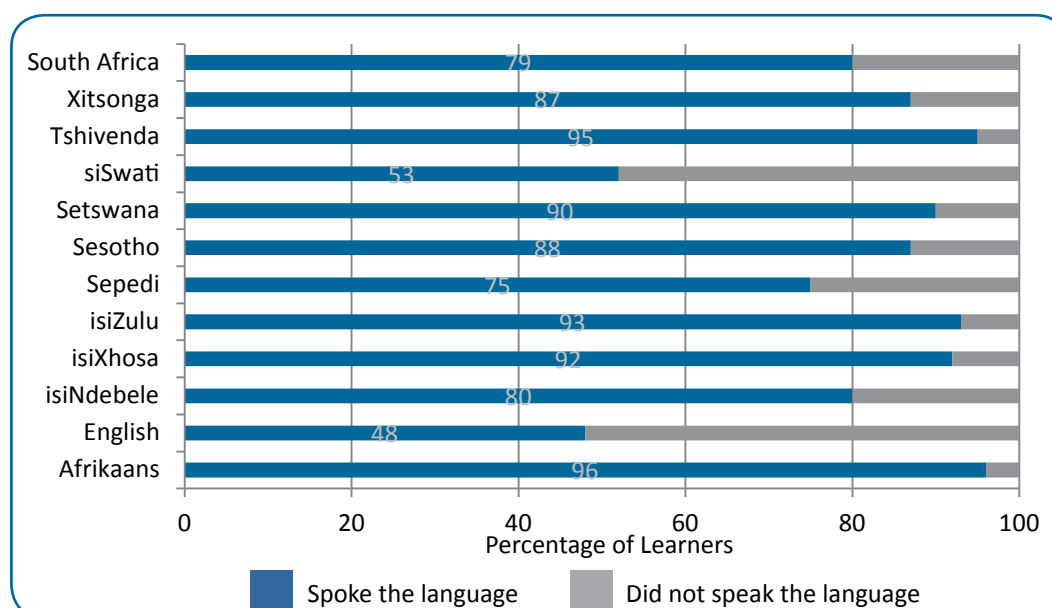


Figure 6.1: Percentage of Grade 4 Learners who spoke the Language of the Test prior to going to School

The languages with the largest differences in achievement were English (75 points), Afrikaans (50 points), and isiXhosa (59 points) (Figure 6.2).

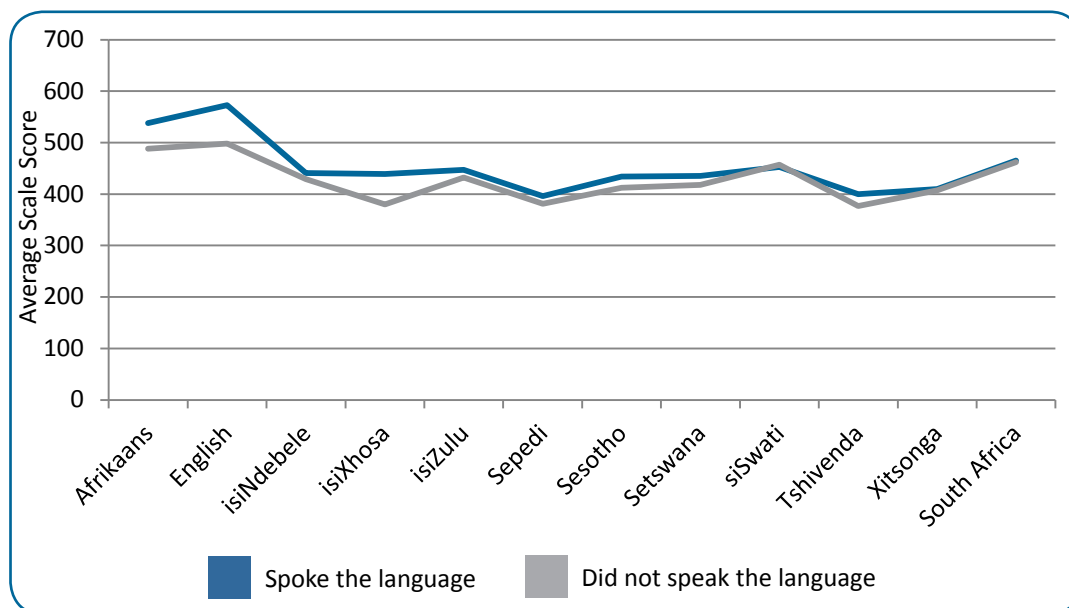


Figure 6.2: Number of Grade 4 Learners Speaking the Language of the Test prior to going to School and Achievement

## 6.2 prePIRLS 2011 Learner Attitudes and Behaviour to Reading

Each successive PIRLS assessment has shown a strong positive relationship between learner attitudes towards reading and reading achievement. The types of reading activities in which they engage may encourage and strengthen positive reading attitudes, the establishment of which is included as an educational outcome in most reading curricula.

In this section, findings related to learners' enjoyment of reading, their attitude, motivation and confidence, as derived from the learner questionnaire in prePIRLS 2011, are presented.

### 6.2.1 prePIRLS 2011 Learner Reports on Enjoying Reading

Internationally, about twice as many Grade 4 learners *liked reading* (i.e. were in the *like reading* category) (28%) than in the *do not like reading* category (15%). Learners who enjoyed reading achieved higher average achievement than those who reported not enjoying reading.

Of the South African prePIRLS 2011 learners, fewer (only 16%) *liked reading* than did their peers internationally, and a slightly smaller percentage (12%) *do not like reading*.

For purposes of obtaining measures of learner enjoyment of reading in both prePIRLS and PIRLS 2011, learners were asked the degree of agreement with a number of statements, including

- *I read only if I have to*
- *I like talking about what I read with other people*
- *I would like to have more time for reading*

The scale also included items about how often learners read for pleasure.

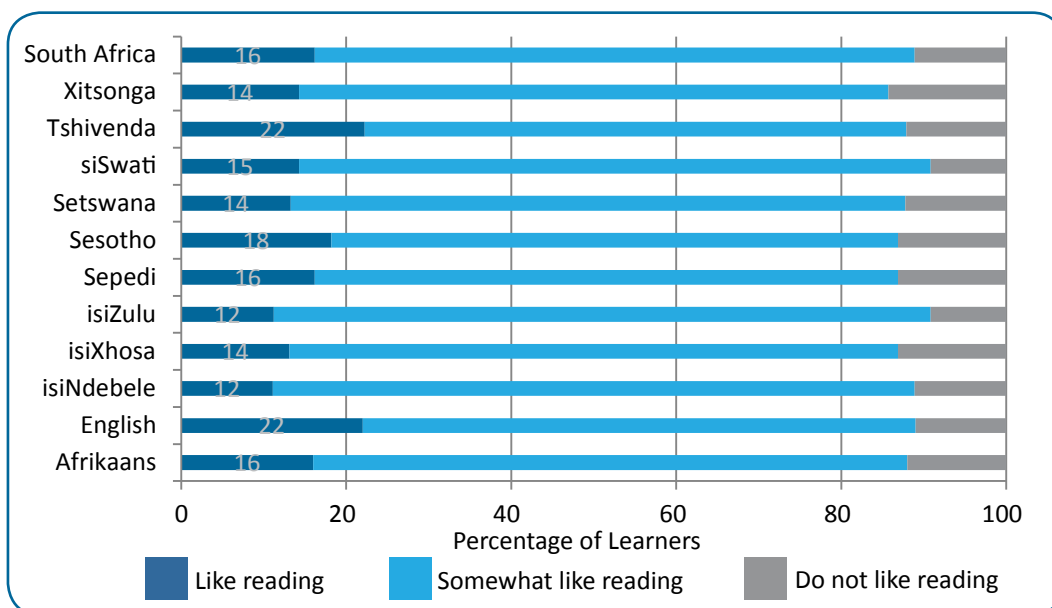


Figure 6.3: prePIRLS 2011 Grade 4 Learners' Enjoyment of Reading

Learners who *like reading* achieved higher scores (almost 100 points more at 519), than those who *do not like reading* (427). There appears to be a strong positive relationship between reading and attitudes towards reading.

Across all 11 languages tested in prePIRLS 2011 (see Figure 6.3), the largest percentage of Grade 4 learners fall in the *somewhat like reading* category. Reading achievement was lowest across all 11 languages for those learners who *do not like reading*, and highest for those who *like reading* (see Figure 6.4).

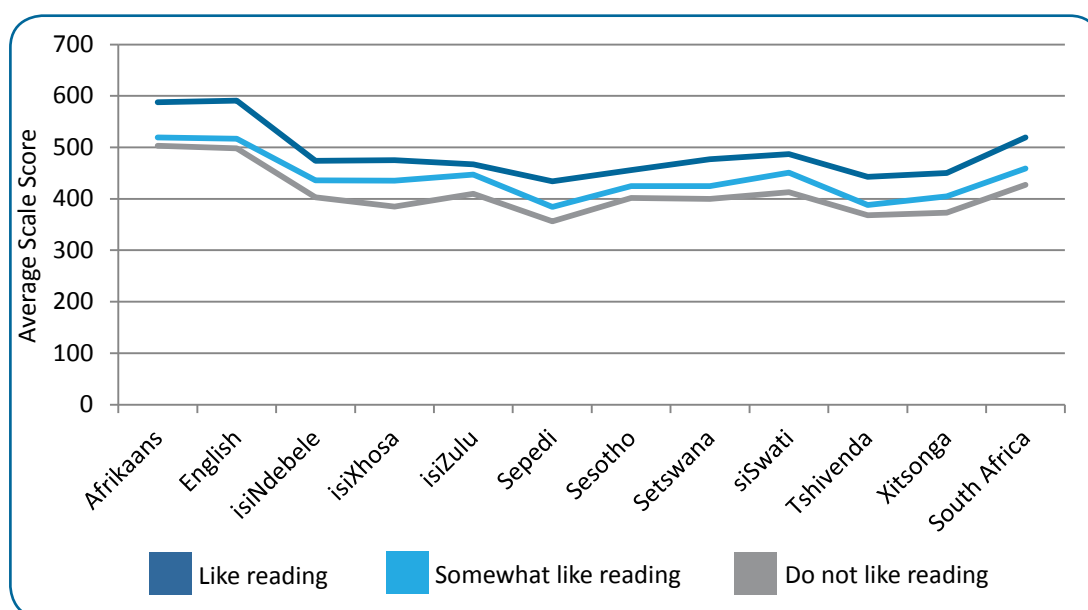


Figure 6.4: Grade 4 Learners' Enjoyment of Reading and their Achievement

## 6.2.2 prePIRLS 2011 Learner Motivation to Read

Overall, most Grade 4 prePIRLS 2011 learners (68%) were motivated to read, and 10% were not motivated at all to read (see Figure 6.5). Similar to reports of reading enjoyment and achievement, the learners who were motivated to read tended to achieve higher achievement scores.

South African learners who were motivated to read attained the highest reading achievement (494) whilst those who were not motivated achieved the lowest score of the three categories of motivation (395), indicating a strong relationship to achievement.

When reading motivation is compared to reading enjoyment, a higher percentage of Grade 4 learners (68%) indicated being motivated to read in comparison to the 16% who reportedly enjoyed reading.

The motivation scale in both prePIRLS and PIRLS 2011 aimed to address six motivational facets of reading, namely:

- I like to read things that make me think
- It is important to be a good reader
- My parents like it when I read
- I learn a lot from reading
- I need to read well for my future
- I like it when a book helps me imagine other worlds

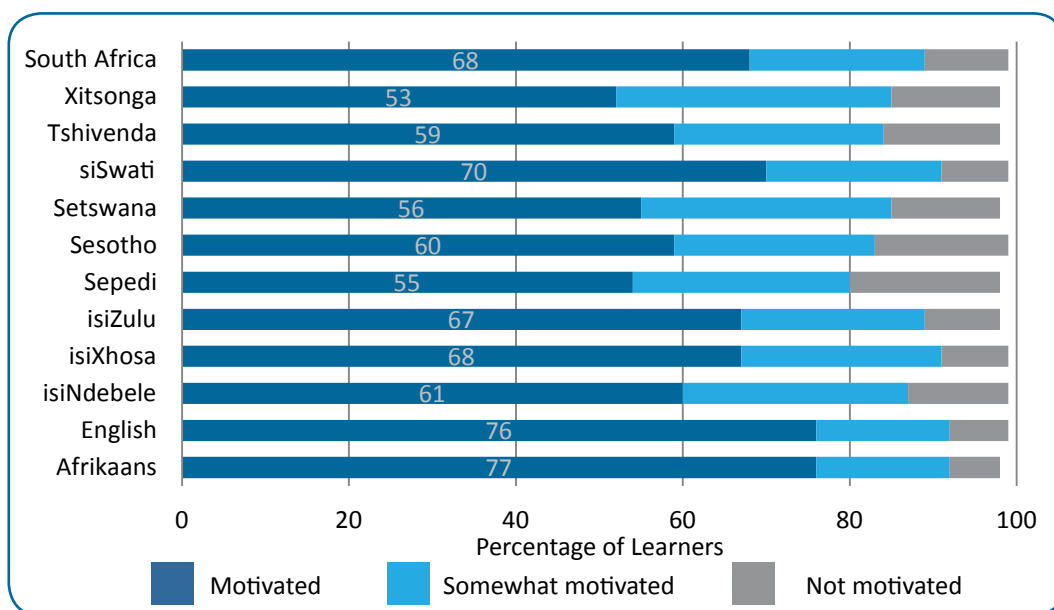


Figure 6.5: Grade 4 Learners' Motivation to Read

Most learners across all the languages were motivated to read, and attained higher average reading achievement scores than learners with lower motivation levels. The learners who were tested in Afrikaans or English appeared to be the most motivated, with three-quarters in the motivated category and achieving over 80 points more than their less motivated counterparts. In contrast, those tested in Xitsonga (53% motivated) and Sepedi (55% motivated) appeared the least motivated and, coincidentally, had the lowest (412 points) and third lowest (430 points) scores respectively (see Figure 6.6).



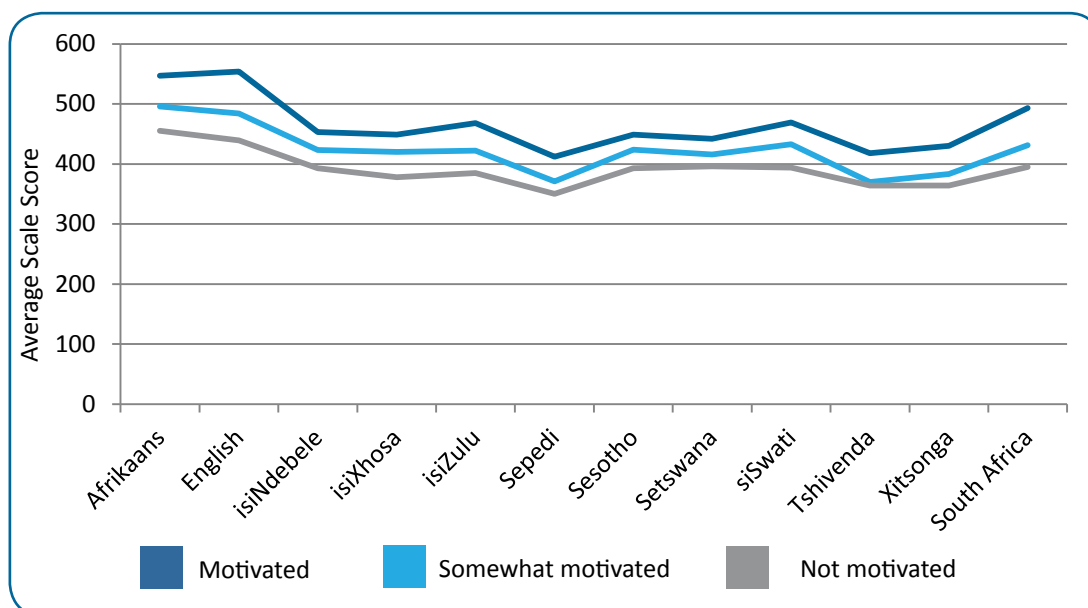


Figure 6.6: Grade 4 Learners' Motivation to Read and their Achievement

For many languages, learners who indicated being *not motivated* to read had substantially lower average reading scores. The most substantial difference in achievement scores was found amongst those tested in English, where the difference between *motivated* and *not motivated* groups was 115 points.

### 6.2.3 prePIRLS 2011 Learner Confidence in Reading

Internationally, more than one-third (36%) of Grade 4 learners expressed being *confident* in their reading. In South Africa, only 18% of learners who participated in prePIRLS 2011 were *confident* in their reading, with the majority of learners (64%) indicating being *somewhat confident* (see Figure 6.7).

The average reading achievement was highest for those Grade 4 learners who reported being *confident* in their reading (548), with more than a 100-average score difference in achievement for those learners who admitted to being *not confident* in reading (419).

Confidence in reading was ascertained by learner agreement to a number of statements, including:

- *Reading is harder for me than for many of my classmates*
- *My teacher tells me I am a good reader*

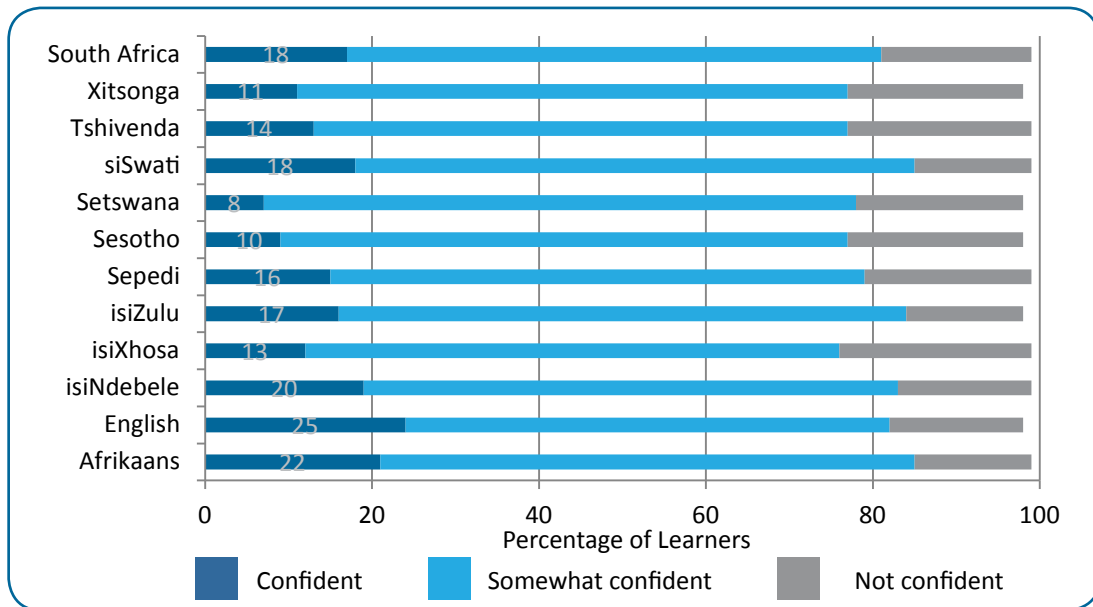


Figure 6.7: Grade 4 Learner Confidence in Reading

The majority of Grade 4 learners fall within the category of being *somewhat confident* in reading (see Figure 6.7). The groups appearing most confident in their reading were those tested in Afrikaans and English, where the greatest gaps were visible. The least confident learners were those tested in Setswana and Sesotho (only 8% and 10% respectively were *confident*), although their achievement scores were not the lowest. The reading scores are markedly higher for those learners who were *confident* in reading than those who were only *somewhat* or *not confident*.

As attested to in Figure 6.8 there appears to be a strong relationship between confidence and achievement, with the most confident learners achieving the highest scores and the least confident achieving the lowest scores across all 11 languages.

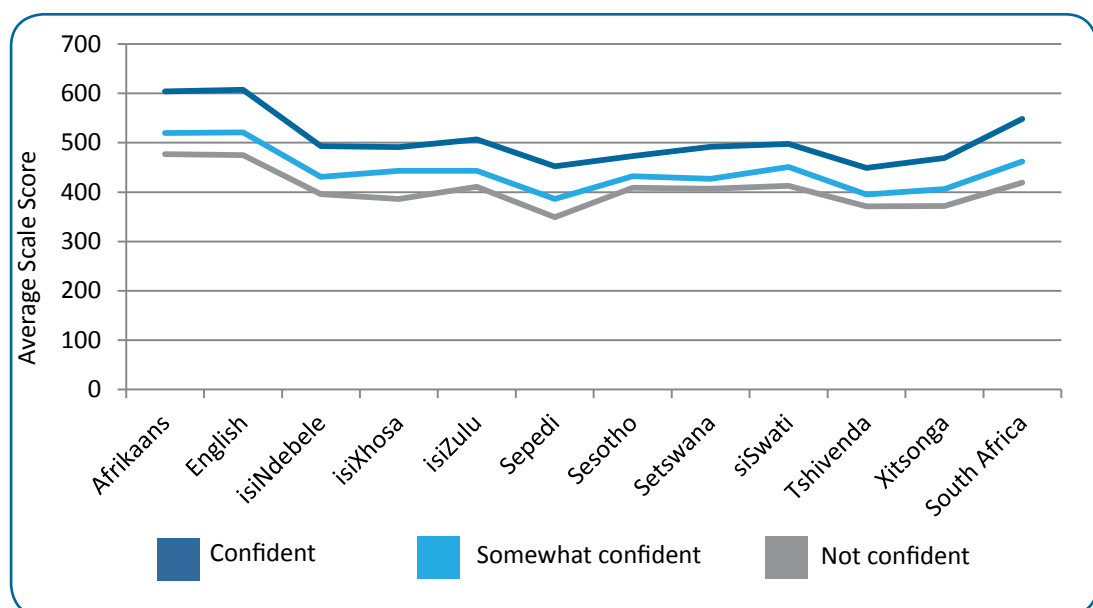


Figure 6.8: Grade 4 Learner Confidence in Reading and their Achievement

### 6.3 prePIRLS 2011 Home Support for Learners

The learners' attitudes and behaviour described in the previous section may be positively or negatively influenced by home environment and access to resources at home. To gain deeper insight into the learners' behaviour and achievement, information was collected about their home environment.

Parents were asked for information about the availability of three important home resources for learning that are internationally highly related to reading achievement. The attitudes of the parents towards reading, and their expectations about their children's education are also reported in this section.

#### 6.3.1 prePIRLS 2011 Home Resources for Learning

Based upon the parents' responses in the parent questionnaire, as well as the learners' responses in the learner questionnaire, a scale was created (ranging from *many resources*, *some resources* and *few resources*) to report on the available home resources. This scale was based upon books in the home, children's books in the home, parents' education level, parents' occupation, children's own bedroom and Internet connection.

Internationally, only 18% of Grade 4 learners had *many resources* at home compared to 9% having only a *few resources*. However, the achievement gap between these categories was 123 points with those with *many resources* achieving 571 points compared to those with *few resources* attaining 441 points.

In prePIRLS, far fewer learners in South Africa can be categorised as living in homes with *many resources* than internationally. However, in comparison with the other countries participating in prePIRLS, they did have more resources at home than those learners in Colombia or Botswana. Two percent of South African learners had *many resources* at home and most of these come from the groups assessed in Afrikaans or English, in addition to a few assessed in isiNdebele, siSwati, Tshivenda and Xitsonga (see Figure 6.9).

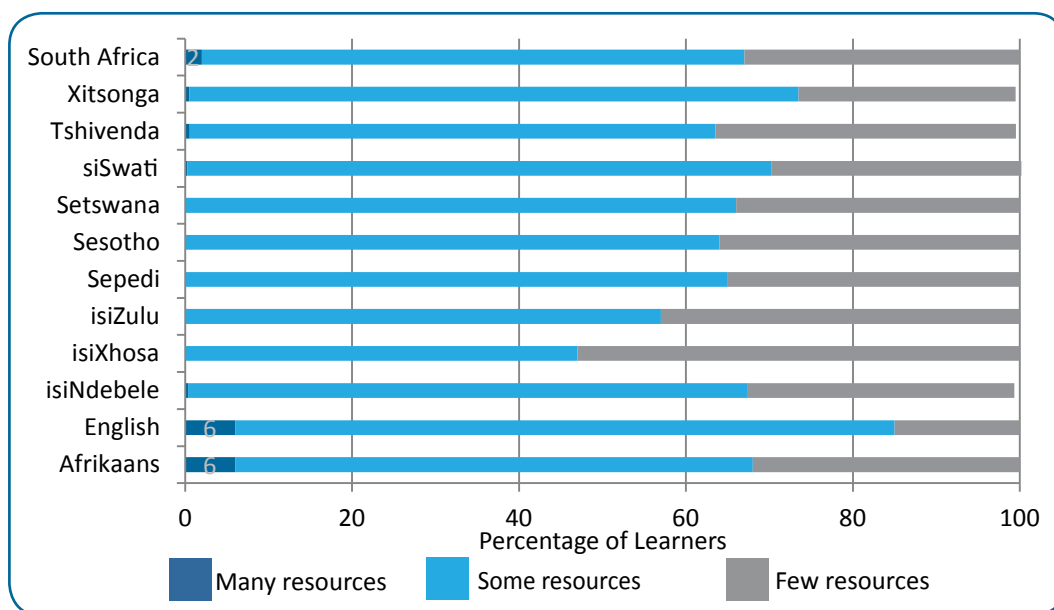


Figure 6.9: Grade 4 Learners' Home Resources for Learning

As was the case internationally, there was a relationship between achievement and the extent of the resources at home. The achievement gap was substantial with those having *many resources* achieving 204 points more than those with *few resources*. The largest group reporting having *few resources* was the group of learners tested in isiXhosa (53%). The smallest group having *few resources* was the one assessed in English (15%). The learners achieving the highest scores, despite having *few resources*, are those assessed in Afrikaans (see Figure 6.10).

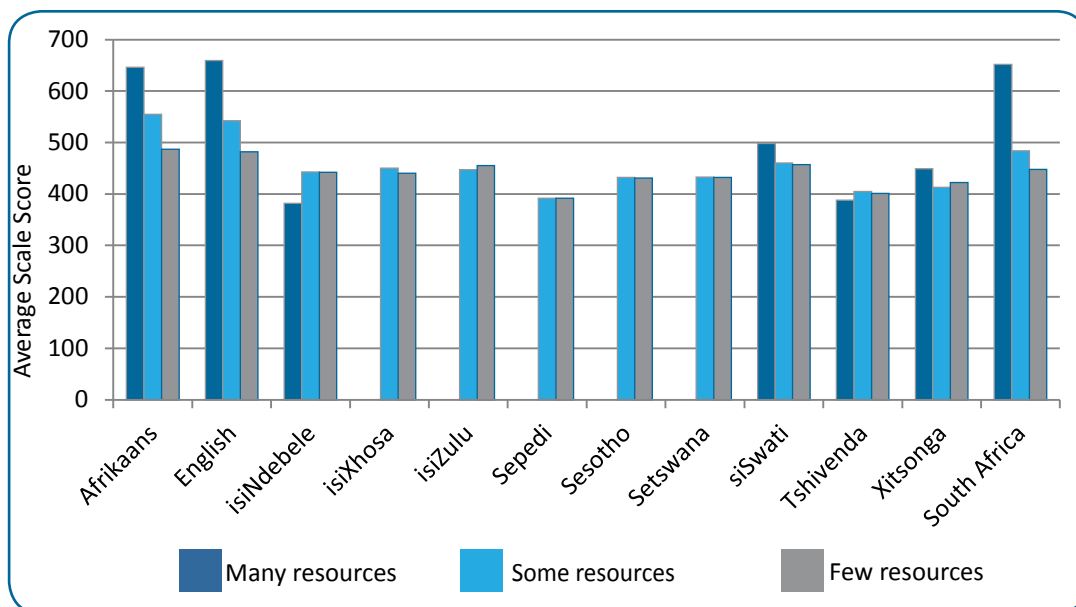


Figure 6.10: Grade 4 Learners' Home Resources for Learning and Achievement

However, there were two groups who did not follow the same pattern of response as the others, namely those tested in isiNdebele and Tshivenda, where the group with most resources had the lowest results and those with fewer resources achieved higher results. Further investigation is needed to understand this phenomenon.

### 6.3.2 Parents' Attitudes towards Reading

Parents have an important role to play in the way they model reading behaviour. In particular, this is important for young children who are still forming their own reading habits and attitudes. Parents who promote reading as an important and valuable reading activity can motivate children to read.

The categories reported in Figure 6.11 (*like, somewhat like and do not like*) summarise the data from parents' responses to seven statements about reading and how often they read for enjoyment. Internationally, about a third of learners had parents who *like* reading as opposed to 11% whose parents do not *like* reading and 57% whose parents *somewhat like* reading. The children of parents who said they *like* reading tended to achieve higher scores than those with parents who said they *do not like* reading.

The percentage of learners with parents who *like* reading was the same as those in Colombia and Botswana. South African learners whose parents *like* reading (22%) achieved 50 points more than those whose parents *do not like* reading. However, the differences in achievement for parents who *like* or *do not like* reading were smaller in Colombia, where there was only a 29-point difference, and larger in Botswana (more than 70 points).

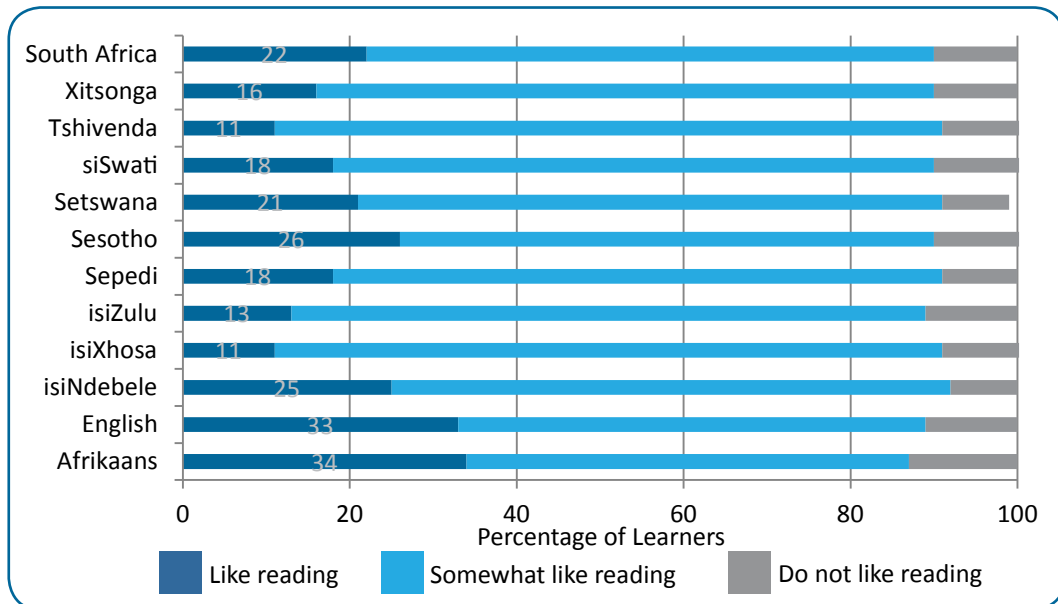


Figure 6.11: Parental Attitude to Reading

There was large variation across the tested groups with no difference in achievement scores for learners tested in isiXhosa whose parents *like* reading or *do not like* (0 points), to the largest difference (80 points), between learners assessed in English whose parents *like* reading (567 points) and those who *do not like* reading (487 points). The gap in achievement appeared greatest between groups tested in Afrikaans (57 points) and those tested in isiZulu (15 points) (see Figure 6.12).

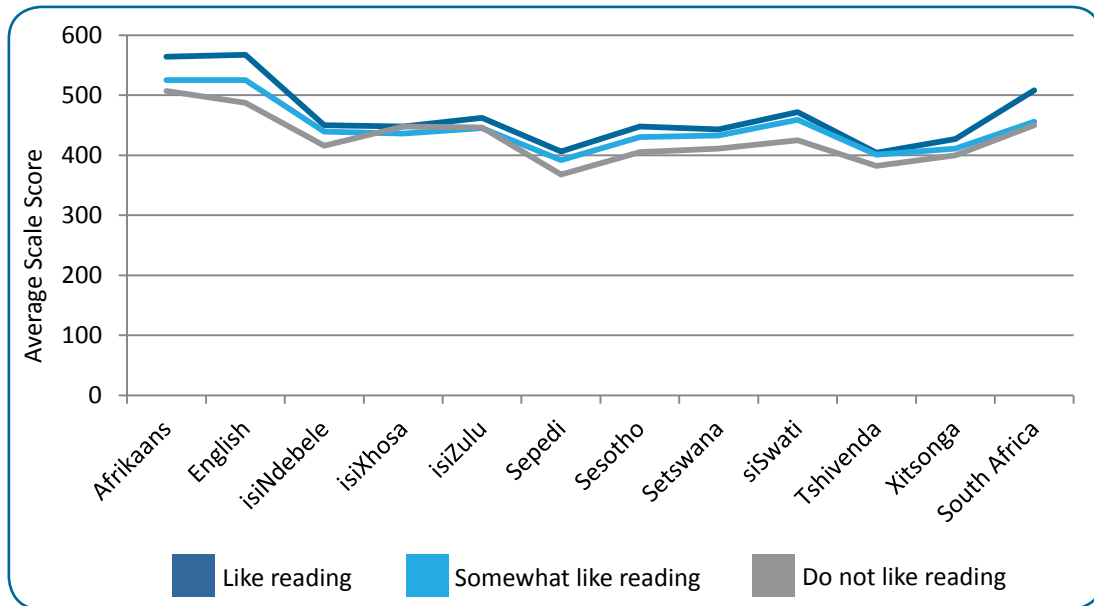


Figure 6.12: Parental Attitude to Reading and Grade 4 Learner Achievement

### 6.3.3 Parents' Educational Expectations for their Children

Internationally, research has revealed relationships between parental educational expectations for their children and achievement. Parents were asked about their expectations according to the children's attainment of educational levels, from postgraduate degree, undergraduate degree, post-secondary and upper-secondary or less. Internationally, the parental expectations appeared to be very high, with about a third of learners having parents who expected them to graduate from university. A positive relationship was also found between these aspirations and learner achievement, resulting in a 78-point difference between those learners with parents who aspired for their children to obtain postgraduate degrees and those with parents who expected them to attend secondary school or less.

South African parents have exceptionally high aspirations, similar to their Botswana counterparts but different from those in Colombia, who are closer to the international average for PIRLS. A much higher proportion of South African learners had parents (52% - see Figure 6.13) who aspire to their children undertaking postgraduate education than the international average (34%), which is already considered high. These clearly unrealistic expectations are of concern, as parents are unable to plan for their children's future appropriately. Very few parents saw alternatives to university education. The South African perspective is in sharp contrast to parents in top performing countries, of whom relatively few learners had parents who aspire to postgraduate education for their children, for instance, only 3% in the Russian Federation.

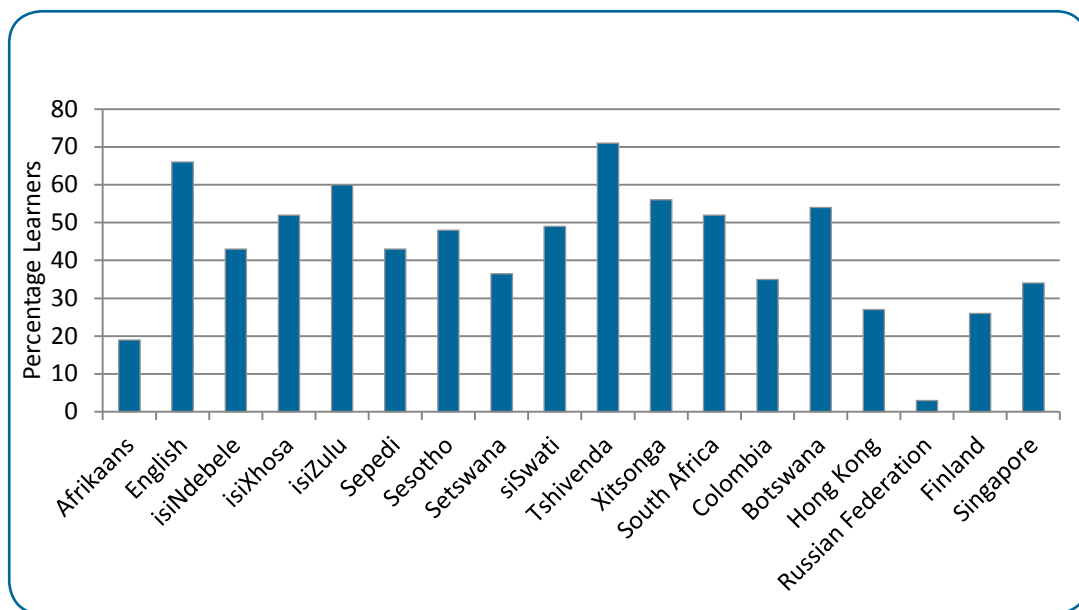


Figure 6.13: Parental Educational Expectations of their Grade 4 Children compared Internationally

However, a closer look at the parents' responses reveals a relationship with achievement, where patterns of discernment between educational levels are visible. Amongst parents of learners writing in Afrikaans, English or isiXhosa, there appears to be a relationship with achievement and learners whose parents aspired for them to obtain higher levels of education for these three test groups.

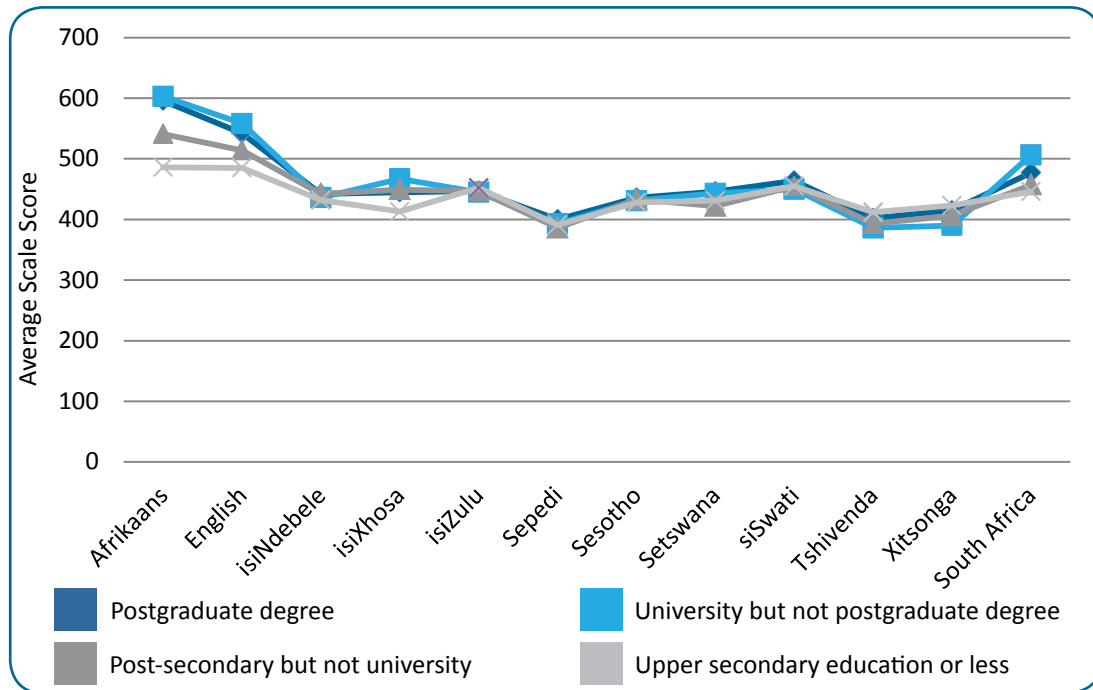


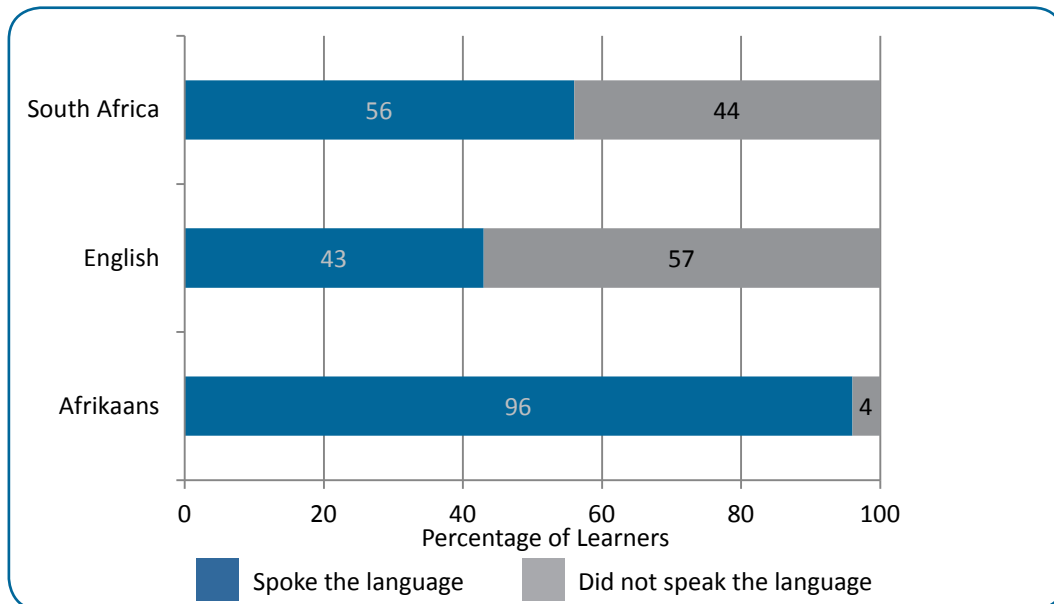
Figure 6.14: Parental Aspirations and Grade 4 Learner Achievement

Learners of parents in those three test groups aspiring to university education for their children achieve higher scores than learners of parents aspiring to lower levels of education. However, this does not seem to be the case for other test groups (see Figure 6.14), where no relationship is apparent. This could be due to a lack of understanding of what postgraduate education is or unrealistic expectations given the achievement levels of their children.

#### 6.4 Profile of the Grade 5 Learners in PIRLS

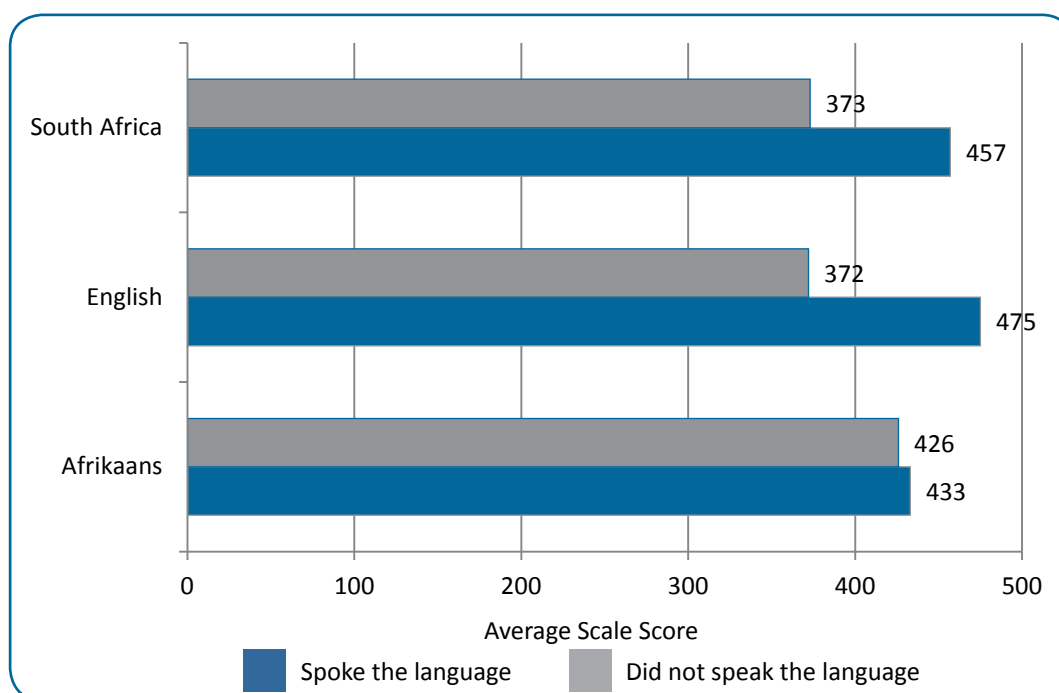
The average age of the Grade 5 learners is 11.4 years and almost 49% of the learners are girls.

More than half of the South African Grade 5 learners spoke the language of the test before they went to school (56%) (see Figure 6.15). However, it would appear that there was an 84-point difference overall in achievement between those who did speak the language of the test before school (457 points) and those who did not (373 points).



**Figure 6.15: Percentage of Grade 5 Learners who spoke the Language of the Test prior to going to School**

There was a considerable difference between the two test groups in the percentage of learners speaking the language of the test before starting school. Whilst almost all learners (96%) tested in Afrikaans spoke Afrikaans before starting school, this was not the case for those tested in English. Less than half of the Grade 5 learners (43%) tested in English spoke the language before starting school. This relatively high percentage may point to the changing profile of English primary school learners in South Africa, where many parents from rural, township and inner-city areas make a conscious decision to send their children to schools in which English is predominantly offered as the LoLT instead of African languages.



**Figure 6.16: Grade 5 Learners speaking the Language of the Test before starting School and Achievement**



The difference between speaking the language of the test before school and not doing so is reflected in the respective scores achieved for each group (see Figure 6.16). Whilst there was a minor difference in Afrikaans between those who spoke the language before school and those who did not, there was a difference of more than 100 points between the English learners in these two categories.

## 6.5 PIRLS 2011 Learner Attitudes and Behaviour to Reading

As mentioned in 6.2, a strong positive relationship between learner attitudes to reading and reading achievement has consistently been found internationally.

In this section, findings related to learners' enjoyment of reading, attitude, motivation and confidence as derived from the learner questionnaire in PIRLS 2011 are presented.

### 6.5.1 PIRLS 2011 Learner Reports on Enjoying Reading

Most (67%) of South African PIRLS 2011 learners reported that they *somewhat like* reading (see Figure 6.17). This was the case across both languages tested in PIRLS 2011.

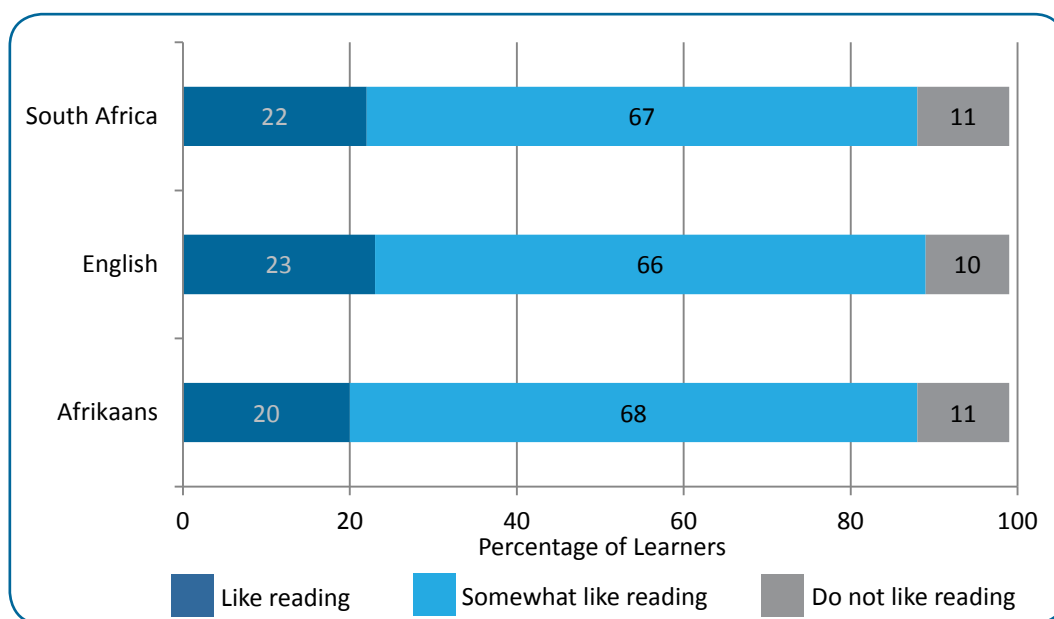


Figure 6.17: PIRLS 2011 Grade 5 Learner Reading Enjoyment

This group of learners achieved the poorest average reading achievement (405, SE=7.4), compared to average achievement of 421 (SE=10.6) for learners who indicated that they *do not like* reading (see Figure 6.18).

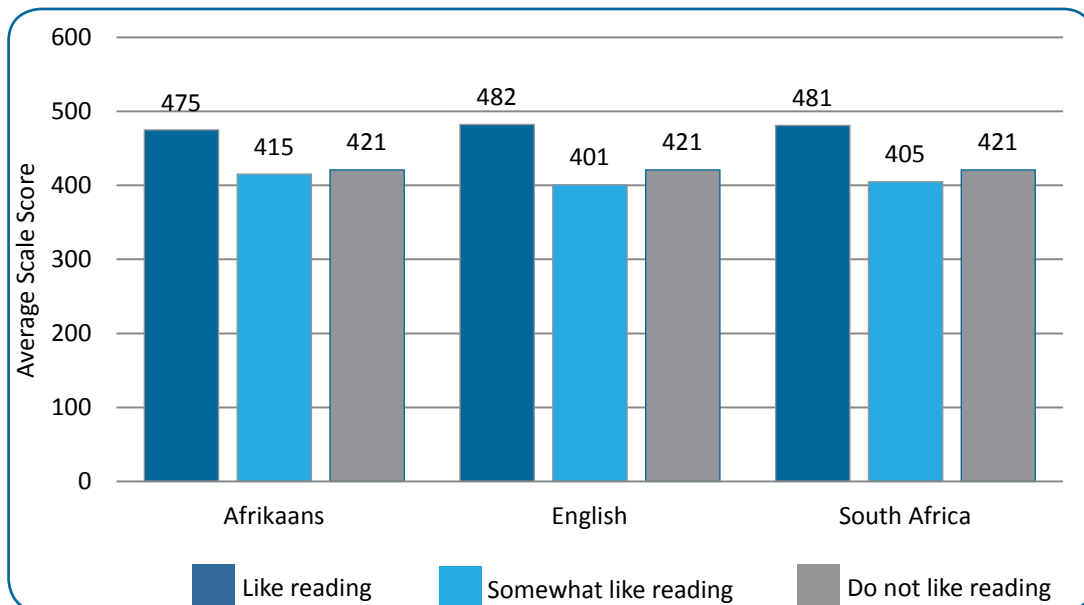


Figure 6.18: PIRLS 2011 Grade 5 Learner Reading Enjoyment and Achievement

### 6.5.2 PIRLS 2011 Learner Motivation to Read

Overall, most Grade 5 PIRLS 2011 learners (78%) were *motivated* to read, with only 6% who were *not motivated* to read (see Figure 6.19). As with Grade 4, the international experience, and reports of reading enjoyment and achievement, the learners who were *motivated* to read tended to achieve higher achievement scores. A higher percentage of learners tested in Afrikaans (82%) were *motivated* compared to those tested in English (76%).

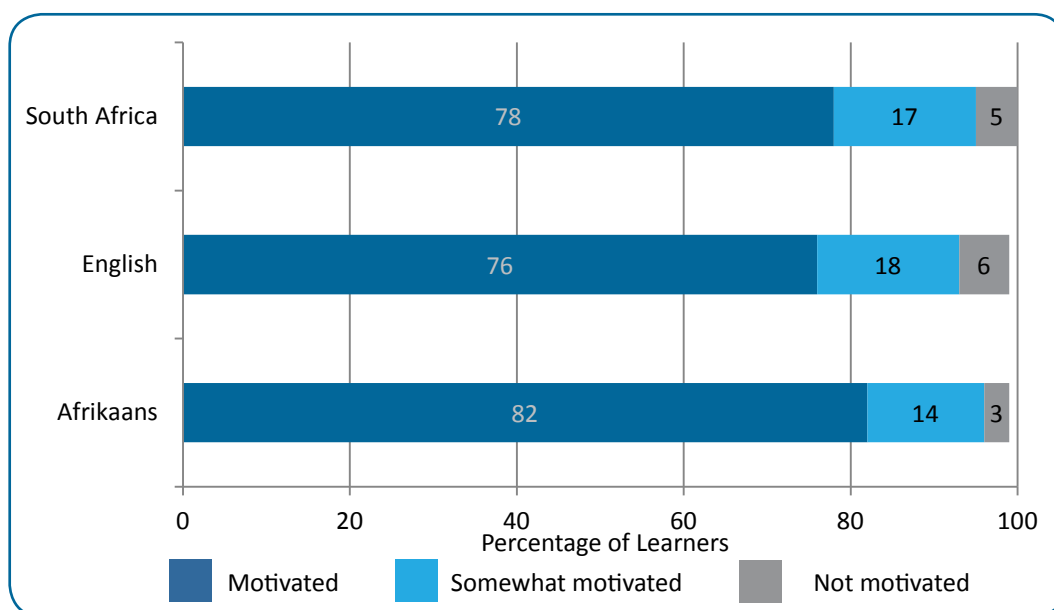


Figure 6.19: PIRLS 2011 Grade 5 Learner Motivation to Read

As illustrated in Figure 6.20, South African learners who were *motivated* to read attained the highest reading achievement (441) and those who were *not motivated* achieved the lowest scores of the three categories of *motivation* (348) indicating a strong relationship to achievement.

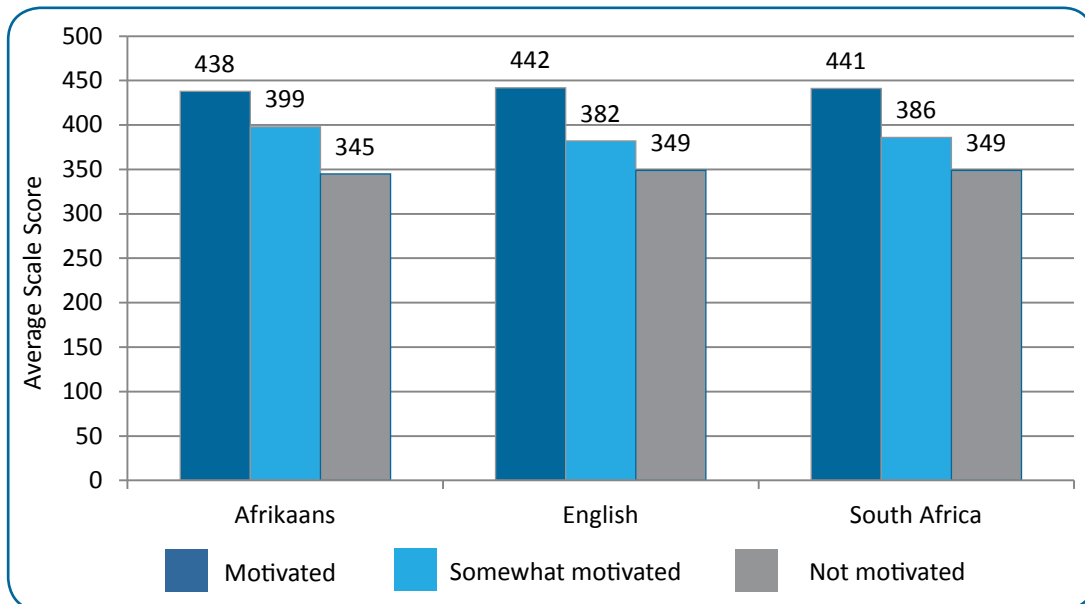


Figure 6.20: PIRLS 2011 Grade 5 Motivation to Read and Achievement

In both languages tested, the difference between the *motivated* and *not motivated* Grade 5 learners was nearly 100 points.

### 6.5.3 PIRLS 2011 Learner Confidence in Reading

In South Africa, only 26% of Grade 5 learners who participated in PIRLS 2011 expressed *confidence* in their reading, with more than half (58%) indicating being *somewhat confident* (see Figure 6.21).

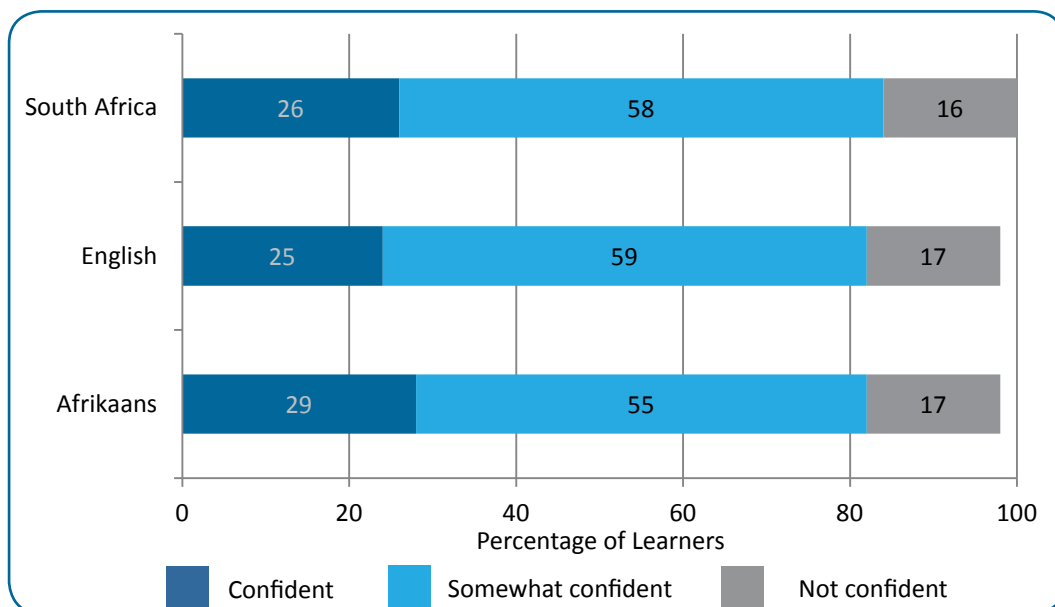


Figure 6.21: PIRLS 2011 Grade 5 Learner confidence in Reading

For the 26% of learners who reported being *confident* in reading, average achievement scores were highest at 502 (see Figure 6.22). In contrast, learners who were *not confident* about their reading achieved a low 365 points (a difference of 137 points). The pattern was similar for both languages, with the *confident* learners achieving higher scores than those lacking *confidence*.

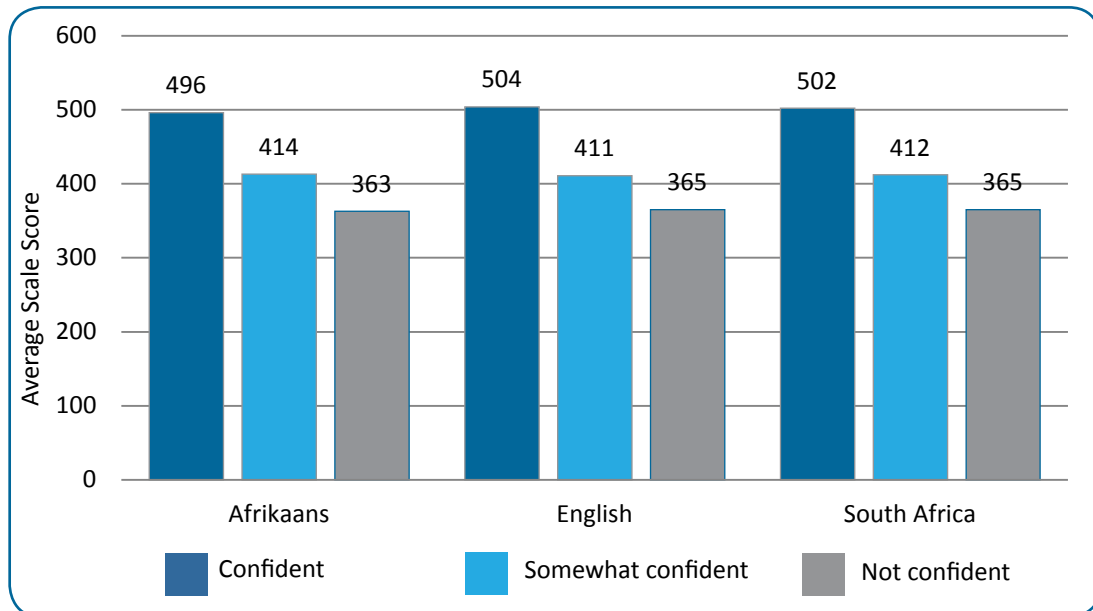


Figure 6.22: PIRLS 2011 Grade 5 Learner confidence in Reading and Achievement

## 6.6 PIRLS 2011 Home Support for Learners

Parents of Grade 5 learners were also asked for information about the availability of three important home resources which are internationally highly related to reading achievement, namely parents' education, parental occupation and the number of children's books in the home.

### 6.6.1 PIRLS 2011 Home Resources for Learning

As described in Section 6.3.1, information was gathered about the home resources. Internationally, only 18% of Grade 4 learners had many resources at home compared to 9% having few. However, the achievement gap was 123 points, between those with *many resources* (571 points) and those with *few* (448 points).

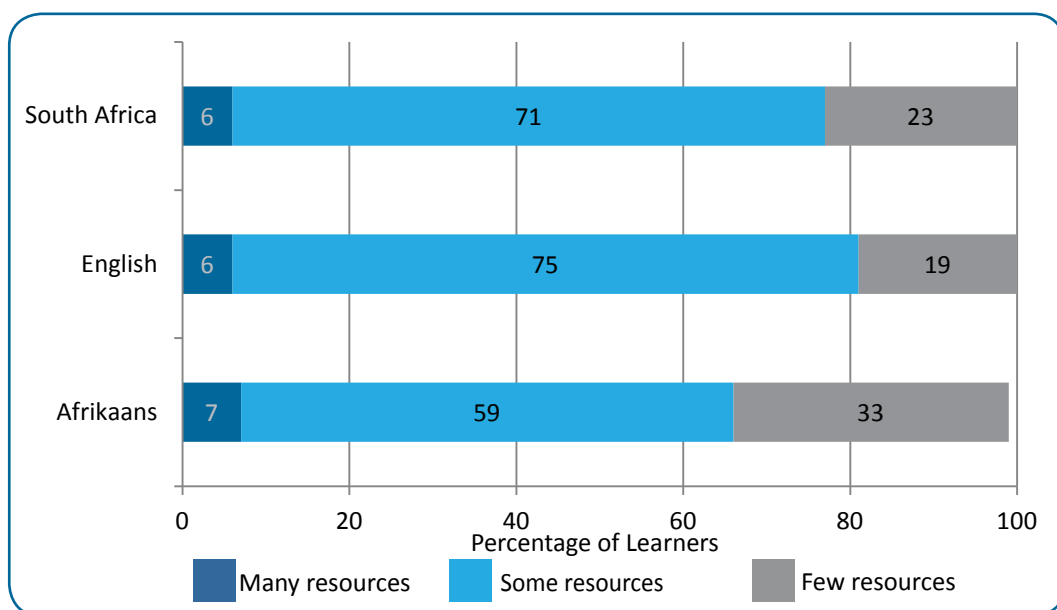


Figure 6.23: Grade 5 Learners' Resources at Home

In PIRLS, far fewer Grade 5 learners in South Africa (6%) can be categorised as living in homes with many resources than internationally (see Figure 6.23).

As was the case in Grade 4 and internationally, there was a relationship between achievement and the extent of the resources at home ( see Figure 6.24). The achievement gap was substantial with those having *many resources* achieving 219 points more than those with *few*. This achievement gap represents the largest difference in the PIRLS and prePIRLS study, although it should be noted that countries such as Botswana, Honduras and Morocco had insufficient data to report on this indicator.

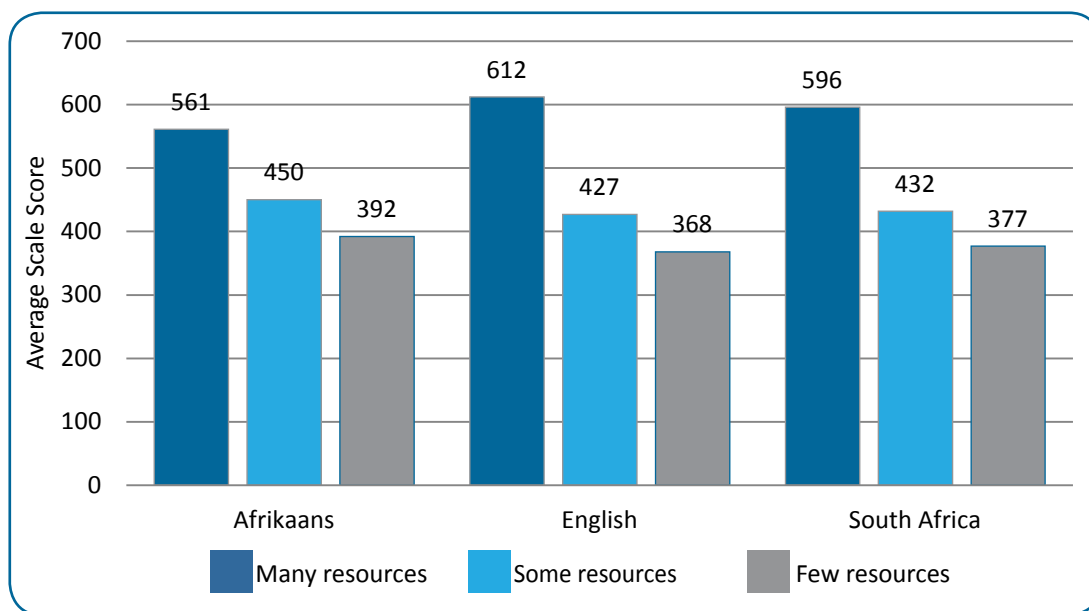


Figure 6.24: Grade 5 Learners' Resources at Home and Achievement

The greatest difference in achievement was found in the English group, with learners from home with *many resources* achieving 612 points compared to 368 points with those who had *few*, a difference of 244 points (four years in education terms). There was also a substantial difference of 169 points in the Afrikaans group.

### 6.6.2 Parents' Attitudes towards Reading

As mentioned in 6.3.3, parental attitudes towards reading are very important. Internationally, about 32% of learners had parents who *like* reading as opposed to 11% who had parents who *do not like* reading. The children of parents who *like* reading (535) tended to achieve higher scores than those who *did not like* reading (487).

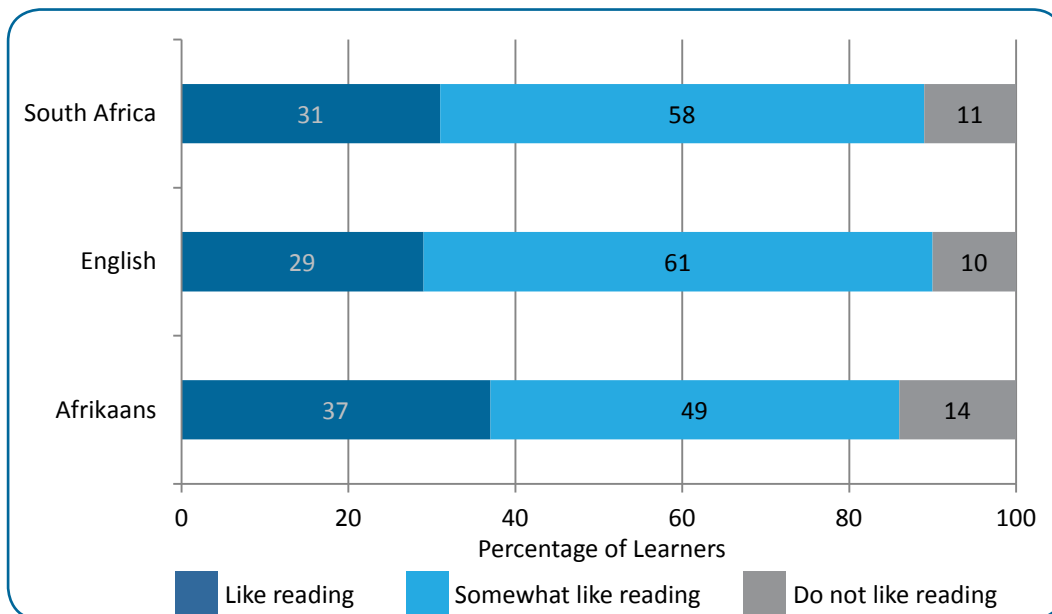


Figure 6.25: Parental Attitudes towards Reading

The percentage of South Africa learners with parents who *like* reading was similar to the international profile (see Figure 6.25). South African learners whose parents *like* reading (31%) achieved 79 points more than those whose parents *do not like* reading. However, greater differences in achievement (92 points) were found amongst the English group than within the Afrikaans group (52 points) (see Figure 6.26).

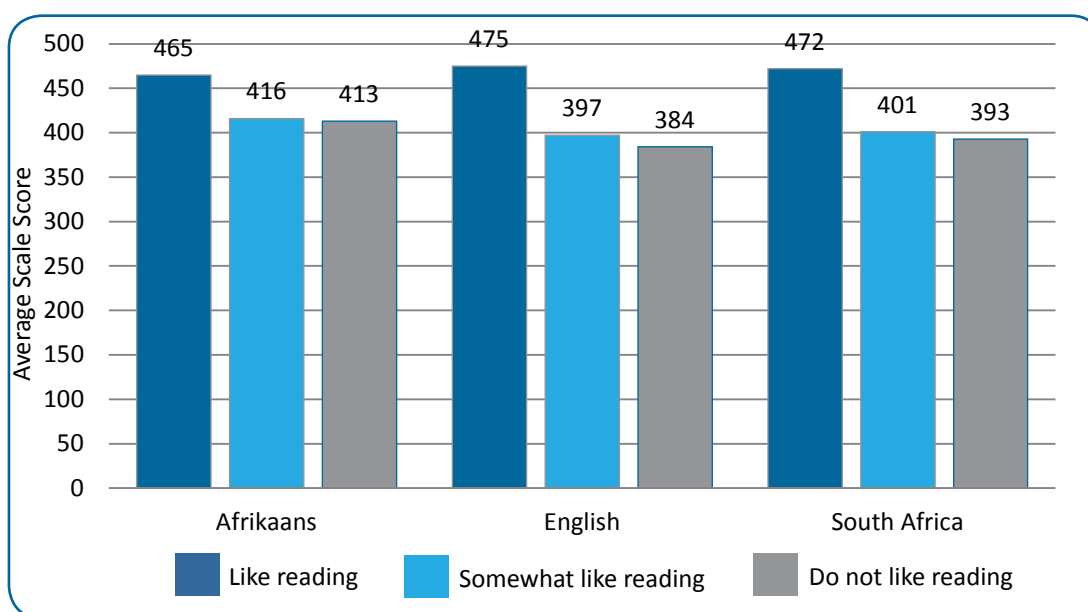


Figure 6.26: Parental Attitudes towards Reading and Grade 5 Learner Achievement

### 6.6.3 Parents' Educational Expectations for their Children

Internationally, the parental expectations appeared to be very high with about 34% of learners having parents expecting them to graduate from university. A positive relationship was also found between these aspirations and learner achievement, resulting in a 78-point difference between those learners with parents with aspirations for their children to obtain postgraduate degrees and those learners with parents expecting their children only to attend secondary school or less, as reported above.

South African parents of Grade 5 learners, similar to those of Grade 4 learners, have exceptionally high aspirations compared to the international average for PIRLS. A much higher proportion of South African learners (54% - see Figure 6.27) had parents who aspired to their children undertaking postgraduate education compared to the international average (34%), which is already considered high. These clearly unrealistic expectations are of concern as parents are unable to plan for their children's future appropriately. Very few parents saw alternatives to university education.

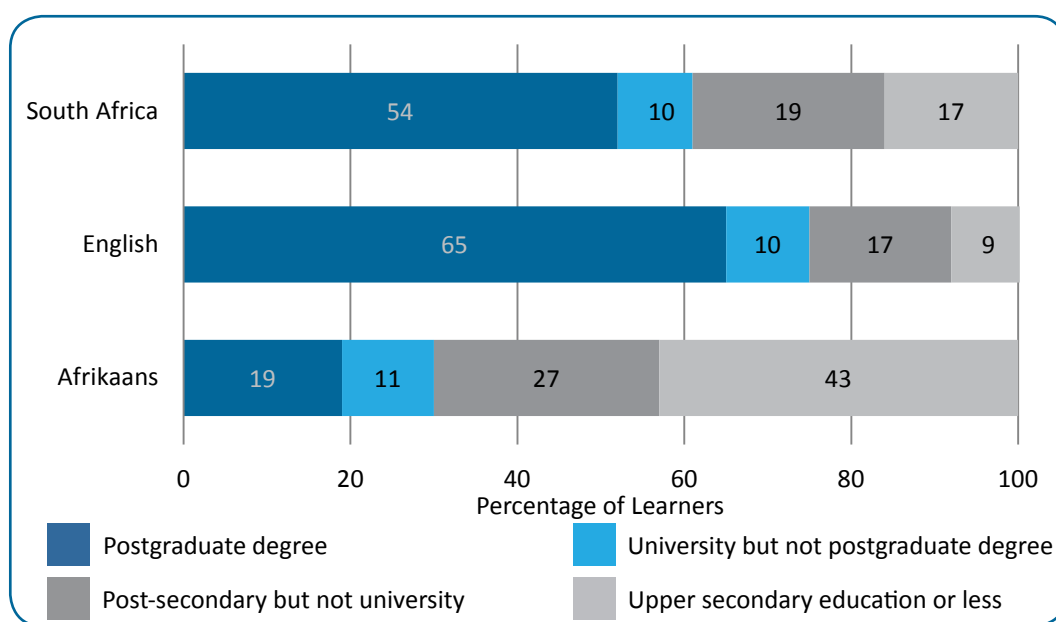


Figure 6.27: Parental Aspirations for Education of their Grade 5 Children

In relation to achievement, patterns of discernment between educational levels are visible between language groups (see Figure 6.28). Amongst parents of learners writing in Afrikaans or English there appears to be a relationship between achievement and parents aspiring to higher levels of education for both test groups. Children of parents who aspired to university education for their children achieved higher scores than those who aspired to secondary education levels, with the difference being up to 100 points.

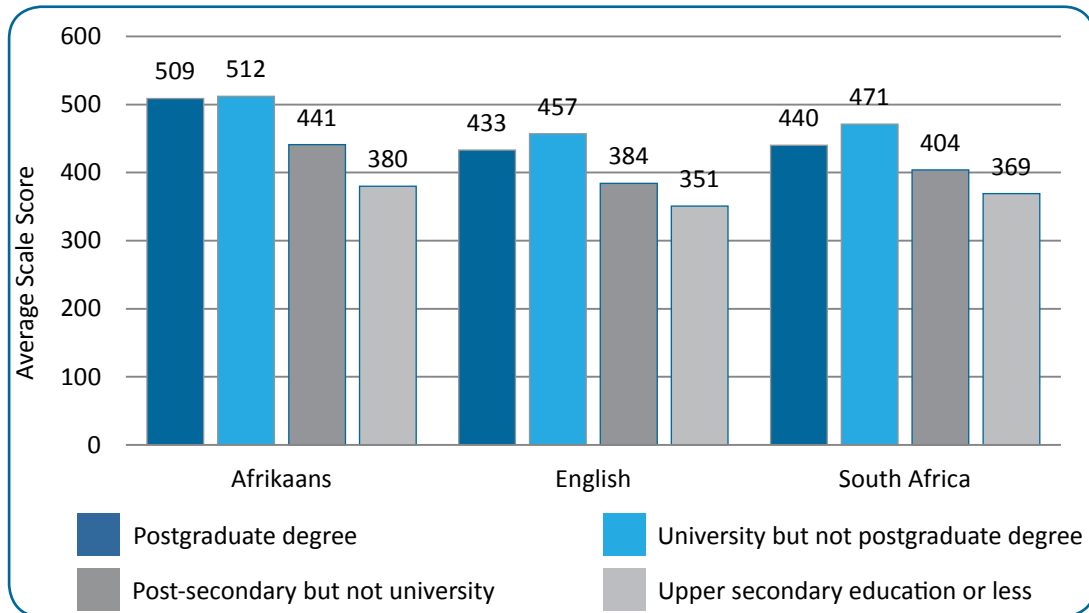


Figure 6.28: Parental Aspirations for their Children and Grade 5 Learner Achievement

## 6.7 Conclusions

This chapter was devoted to describing the findings related to the learners' enjoyment of reading, motivation to read and confidence in reading and how these related to reading achievement as well as their home environment and what support was available for their reading. Internationally, positive attitudes towards reading can be associated with higher reading achievement scores. This chapter provided evidence for similar patterns that could be found for South African Grade 4 learners who participated in prePIRLS 2011 across all 11 official languages, as well as Afrikaans and English Grade 5 learners who participated in PIRLS 2011.

South African households have on average few resources compared to many countries in PIRLS 2011 and learners from homes that are well resourced in education terms achieve higher reading achievement scores. Grades 4 and 5 learners who liked reading were motivated to do so and were confident readers, achieving higher scores than those who did not like reading, were not motivated to read and were not confident in their reading. Whilst in general in PIRLS 2006, large percentages of learners felt positive towards reading, the effect was not visible in the results (see Howie et al., 2008) where learners expressing high levels of motivation and confidence, still achieved low results on average. For the smaller percentages of learners from both prePIRLS 2011 and PIRLS 2011 who indicated strong positive feelings to reading enjoyment, motivation and confidence, achievement results tended to be higher, thus confirming international results and patterns of strong positive attitudes fostering higher reading achievement. Moreover, children of parents who liked reading achieved on average higher scores than those whose parents who did not like reading. Finally, South African parents have exceptionally high aspirations for their children's education levels and aspire to their undertaking postgraduate education.



## CHAPTER 7

# SCHOOL CLIMATE, CURRICULUM AND ORGANISATION FOR READING

In this chapter, the environment of the schools in which learners were tested is discussed, and recognised internationally as a major explanatory factor in educational achievement. Ascertaining whether or not a school is conducive to learning is very important for understanding the achievement levels present in prePIRLS and PIRLS 2011. Firstly, the 'climate' of the school is described in terms of its emphasis on academic success, after which the leadership is analysed in relation to the activities and time spent on them. Thereafter, safety, order and discipline are discussed, as is the issue of bullying amongst learners.

Having established the background, the matters pertaining to school organisation of reading and curriculum are discussed. Levels of school resources are important in identifying conducive learning environments, particularly for children whose socio-economic backgrounds include their scarcity at home. The factors discussed in this chapter include the reading resources available in the schools, shortages, working conditions, and availability of library books and computers, learners' entry literacy skills, and emphasis in the early grades on reading skills and strategies.

### 7.1 School Climate

Before analysing the school environment, known as school climate, it is important to describe the location of schools. Internationally, the location has an effect on achievement, with Grade 4 learners, or their equivalent, in urban schools having the highest average reading achievement, whilst in South Africa it is closely related to the access to resources. In the prePIRLS study, 7% of Grade 4 learners were in schools in urban areas (see Figure 7.1), 11% in the suburbs, 19% in townships and 42% in remote rural areas. Some of the languages tested were common to remote rural areas, namely siSwati (71%), Tshivenda (66%) and Xitsonga (68%).

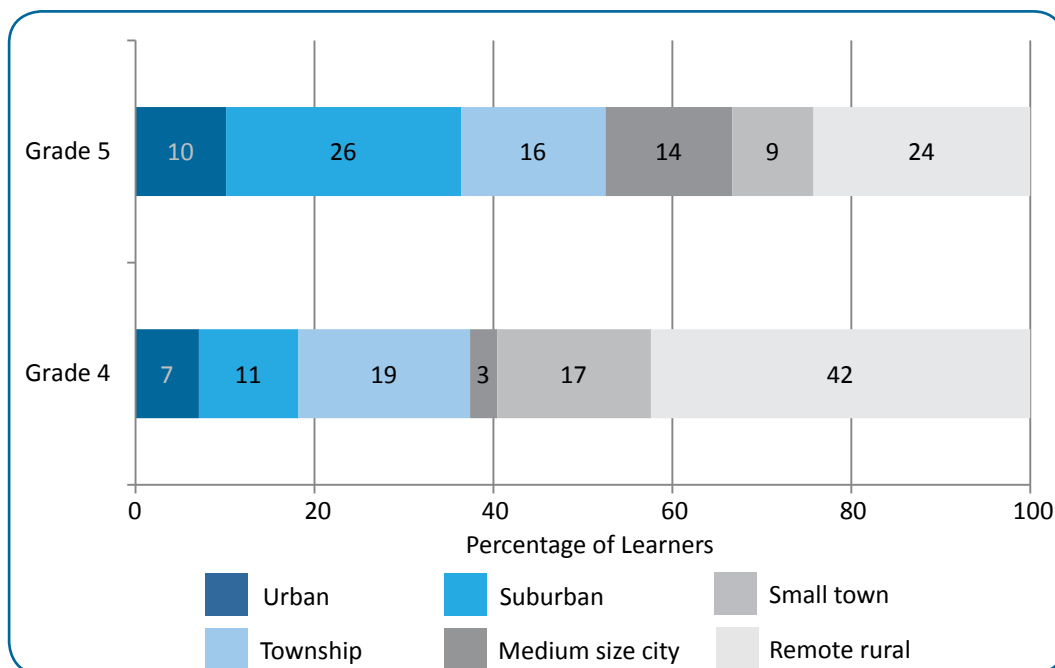


Figure 7.1: School Location of Grade 4 and Grade 5 Learners in prePIRLS and PIRLS

In contrast, the Grade 5 learners were mainly in urban areas, with 24% from remote rural areas and 26% from the suburbs. In terms of the Grade 4 achievement, there was a 100-point difference between scores from urban and suburban areas and those from remote rural areas (see Figure 7.2). However, learners tested in Afrikaans or English in township schools achieved lower scores than those in remote rural areas. Amongst the African languages, the remote rural schools tested in Sepedi and Setswana achieved higher scores than did the urban/suburban schools.

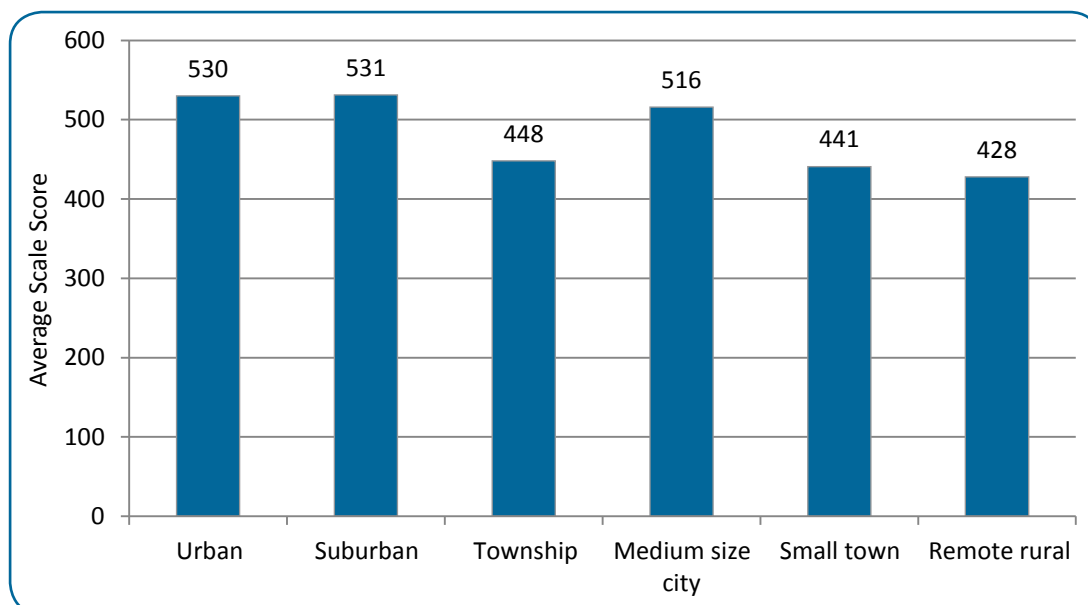
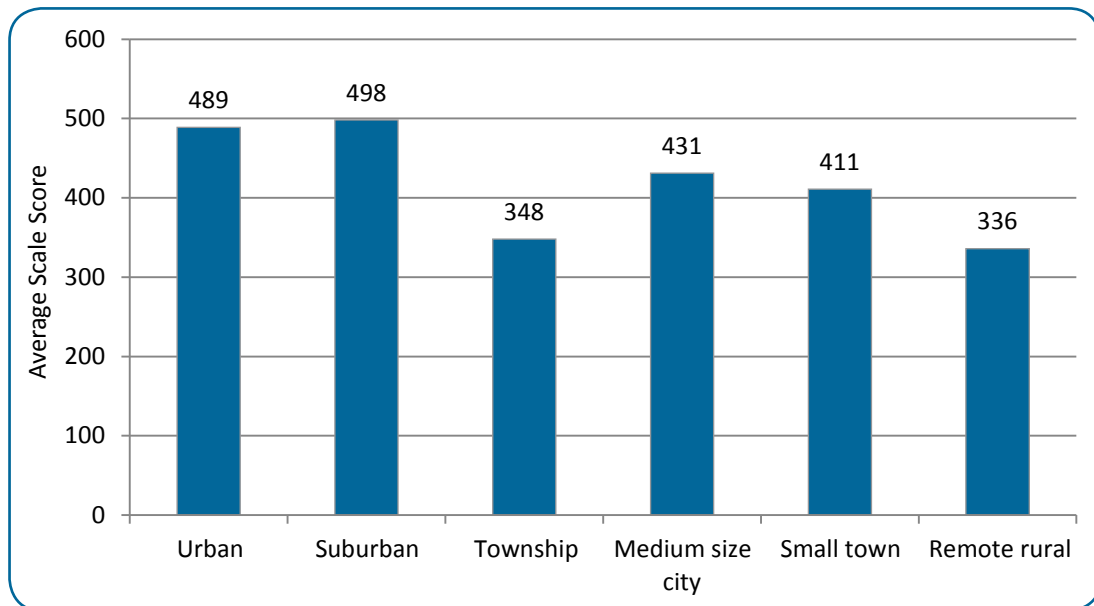


Figure 7.2: School Location of prePIRLS Learners and Achievement

In terms of the Grade 5 learners, a similar result was found (see Figure 7.3), despite only 25% coming from remote rural areas. The gap was larger, with those from suburban schools achieving the highest results of 498 points in PIRLS, compared to 150 points for remote rural areas. This is a highly significant finding, indicating that rural education is two to three years behind that of the suburbs.



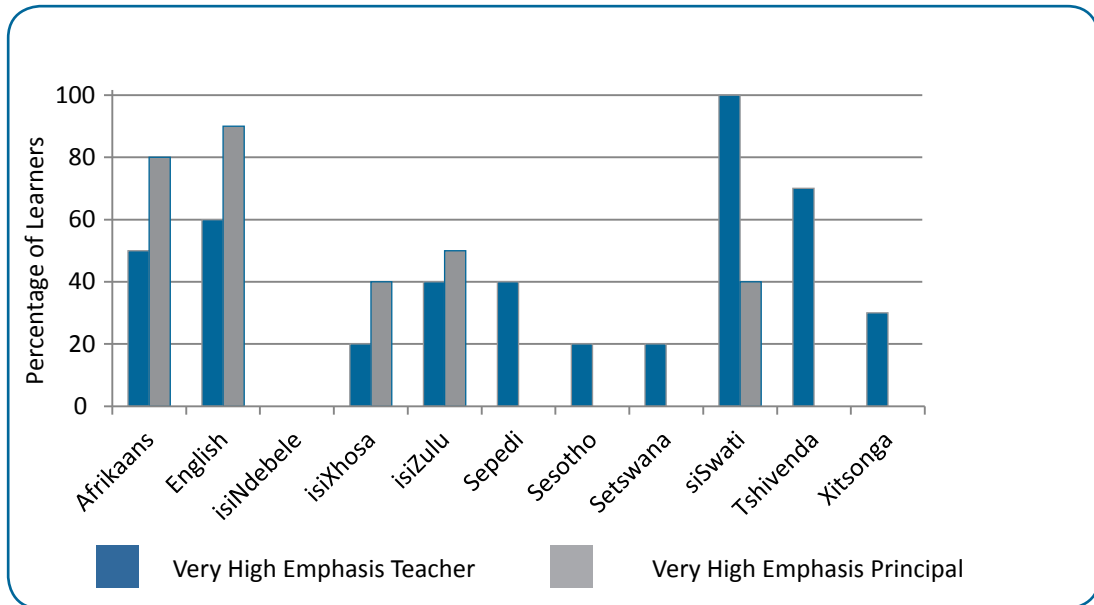
**Figure 7.3: School Location of PIRLS Learners and Achievement**

The learners tested in Afrikaans achieved the highest scores in densely populated urban environments, with about a 100-point difference in scores with remote rural learners. Amongst the learners tested in English the gap was wider, with learners in suburban schools achieving nearly 200 points more than those in remote rural schools.

### 7.1.1 School Emphasis on Academic Success: Teacher and Principal Reports

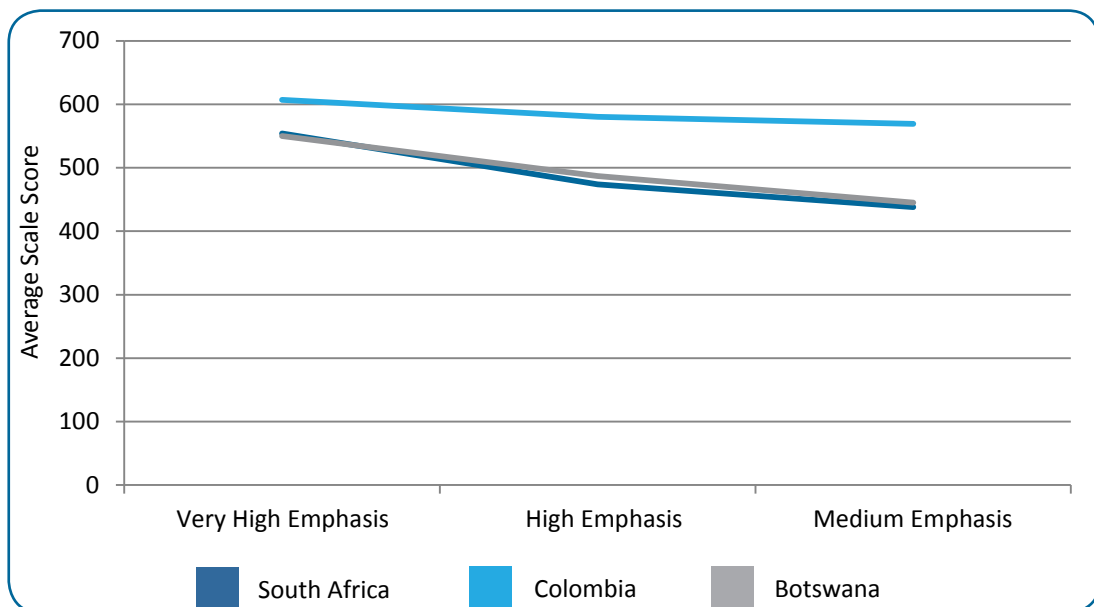
A school's educational values are reflected by the teachers, school leadership, the learners and the learners' parents. A positive atmosphere can be a strong determinant of high achievement and academic excellence, even in the face of challenges, shortages and less than ideal teaching circumstances (Mullis et al., 2012).

PrePIRLS 2011 asked Grade 4 teachers and principals about the extent to which schools emphasised academic success, defined as academic optimism and characterised by teachers' understanding of the curricular goals, the degree of success in implementing the curriculum, their expectations of learner achievement, parental support for learner achievement, and learners' desire to do well in school (Mullis et al., 2012).



**Figure 7.4: PrePIRLS 2011 Teacher and Principal Reports on Emphasis of Academic Success being Very High**

Overall, 4% of the learners had principals and teachers who reported that the school placed *Very High Emphasis* on academic success. Principals of Grade 4 learners tested in Sepedi, Sesotho, Setswana, Tshivenda and Xitsonga did not regard emphasis on academic success as being *Very High*, yet a small percentage of learners in these languages had teachers who did. Neither teachers nor principals of learners tested in isiNdebele regarded their schools as placing *Very High Emphasis* on academic success (see Figure 7.4).



**Figure 7.5: Teacher and Principal reports on Emphasis placed on Academic Success at School and Achievement**

At Grade 5 level, there was a *higher* emphasis on academic success and, overall, 9% of learners had teachers and principals who viewed the emphasis on academic achievement as very *high* (see Figure 7.5). As with Grade 4, the achievement was higher when schools placed a *higher* emphasis on academic success (509, S.E = 66.0) and significantly lower when there was a *lower* emphasis (371, S.E = 11.6). Whilst national patterns suggest that emphasis on academic success within the school is positively associated with average reading achievement scores, no teachers of Grade 5 Afrikaans learners reported a very *high* emphasis on academic success.

### 7.1.2 School Principal Reports on Time spent on Leadership Activities

Grade 4 principals were asked to indicate the extent to which time was spent on a number of leadership activities.

One of the most frequent occurring activities for principals from all language backgrounds was the maintenance of an orderly atmosphere, confirmed by 91% of learners whose principals reported this in the PIRLS 2011 international report (see Mullis et al., 2012). However, activities such as advising teachers and undertaking projects did not occur with regular frequency.

Across the language groups, principals of learners tested in Afrikaans and Setswana backgrounds respectively spent most of their time maintaining an orderly atmosphere at school and addressing disruptive behaviour. Those from schools tested in English and Tshivenda spent most of their time on activities related to developing goals and maintaining an orderly atmosphere. Principals of Grade 4 learners tested in IsiXhosa, Sesotho and siSwati backgrounds spent most of their time maintaining an orderly atmosphere and on professional development, while principals from Sepedi and Xitsonga schools spent most of their time maintaining an orderly atmosphere and monitoring learners. Principals of Grade 4 learners of isiNdebele backgrounds spent time on setting goals and promoting the vision for their schools, while also maintaining an orderly atmosphere at school. Principals of learners tested in isiZulu backgrounds reportedly spent most of their time maintaining an orderly atmosphere and implementing goals.

Leadership activities include:

- *Promoting the vision and goals for the school*
- *Developing goals*
- *Implementing goals*
- *Monitoring learners*
- *Maintaining an orderly atmosphere at school*
- *Addressing disruptive behaviour*
- *Advising teachers*
- *Initiating projects*
- *Professional development*

Similar patterns were seen in those schools participating in PIRLS and principals of the Grade 5 learners tested in Afrikaans centred on maintaining an orderly atmosphere at school (80%) and addressing behaviour (66%). Principals of Grade 5 learners tested in English also centred on maintaining an orderly atmosphere at school (91%) and addressing behaviour (69%). Activities that principals were not apparently spending much of their time on (as reported by smaller percentages of learners) included advising teachers, initiating projects and professional development.

### 7.1.3 School Safety, Order and Discipline

For purposes of PIRLS 2011, a Safe and Orderly School scale was developed (Mullis et al., 2012), where teachers were asked the degree to which they agreed or disagreed with five statements (see text box).

Over a third of Grade 4 learners (35%) in prePIRLS 2011 had teachers who categorised their schools as safe and orderly. Only 14% had teachers who thought that their schools were not safe and orderly.

Teachers were asked the degree to which they agreed or disagreed with five statements:

- *This school is located in a safe neighbourhood*
- *I feel safe at this school*
- *The school's security policies and practices are sufficient*
- *The learners behave in an orderly manner*
- *The learners are respectful of the teachers*

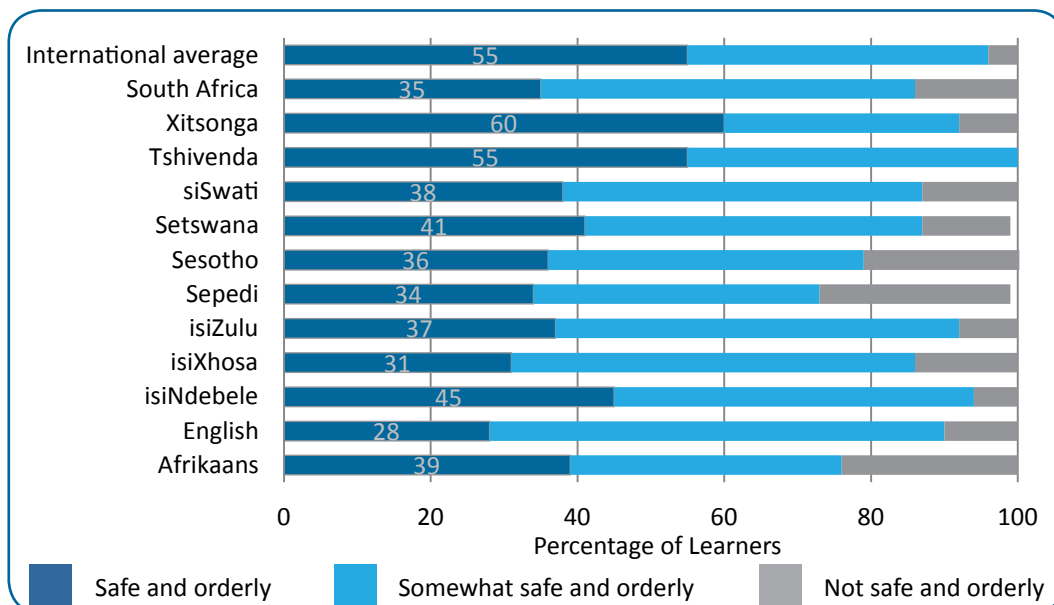
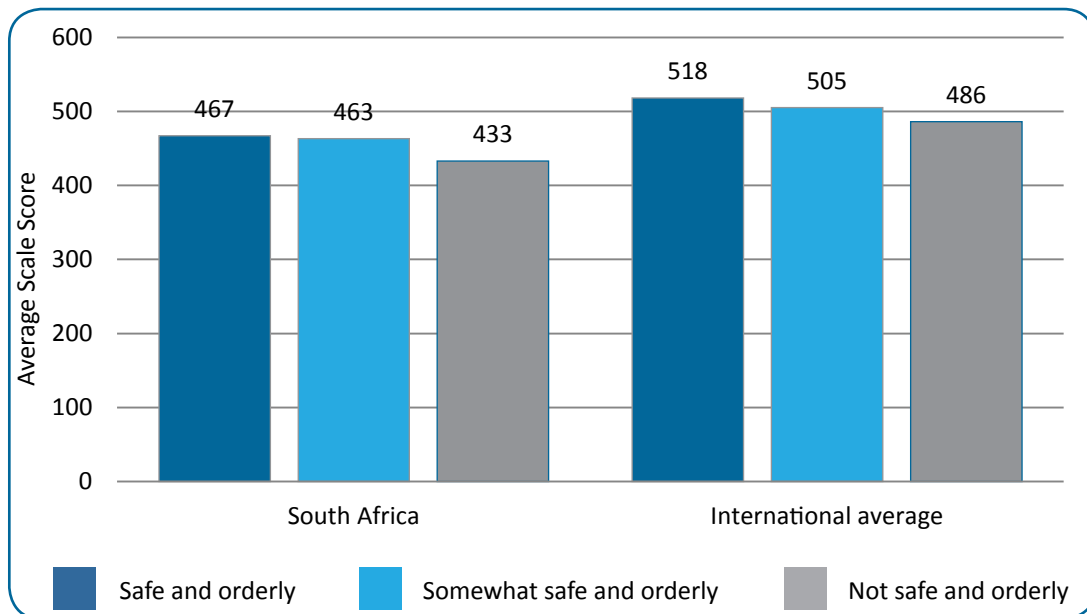


Figure 7.6: prePIRLS 2011 Teacher Reports on School Safety, Order and Discipline

While a pattern of declining achievement would be expected as safety and orderliness increases in schools, it does not hold true for all languages, as can be seen specifically in schools with learners tested in isiXhosa, Sepedi, Sesotho and siSwati. All of the learners from Tshivenda schools had teachers who regarded their schools as safe and orderly.

Overall, there appeared to be a relationship between the perceptions of safety in the school and the achievement of prePIRLS learners in Grade 4, both in South Africa and internationally (see Figure 7.7).



**Figure 7.7: prePIRLS 2011 Teacher Reports on School Safety and Order, Discipline and Achievement**

Similar findings emerged for Grade 5 and internationally in PIRLS, with 41% of learners attending schools judged to be somewhat safe and orderly. Afrikaans schools defied the national and international patterns as learners from schools in the category of *somewhat safe and orderly* achieved higher levels of reading achievement (448, S.E= 17.9) than those in *safe and orderly* schools. In contrast, learners from schools tested in English demonstrated a strong relationship with achievement, and there was a 159 point difference between *safe and orderly* and not *safe and orderly* schools (see Table 7.1).

**Table 7.1: PIRLS 2011 Grade 5 Teacher Reports on School Safety and Order and Discipline**

|                  | Safe and orderly |                     | Somewhat safe and orderly |                     | Not safe and orderly |                     |
|------------------|------------------|---------------------|---------------------------|---------------------|----------------------|---------------------|
|                  | % of learners    | Average achievement | % of learners             | Average achievement | % of learners        | Average achievement |
| <b>Afrikaans</b> | 28               | 410                 | 54                        | 448                 | 18                   | 376                 |
| <b>English</b>   | 45               | 472                 | 45                        | 405                 | 10                   | 313                 |

Coinciding with reports of safety and orderliness, more than half of the Grade 4 learners (56%) had principals who said their schools experienced disciplinary problems to some extent. See Figure 7.8 for per language breakdown Again, achievement overall was negatively affected. As school discipline problems increased, there tended to be a decline in reading achievement from 493 points for schools with no discipline problems, to a reading achievement of 437 points for schools with moderate discipline problems.

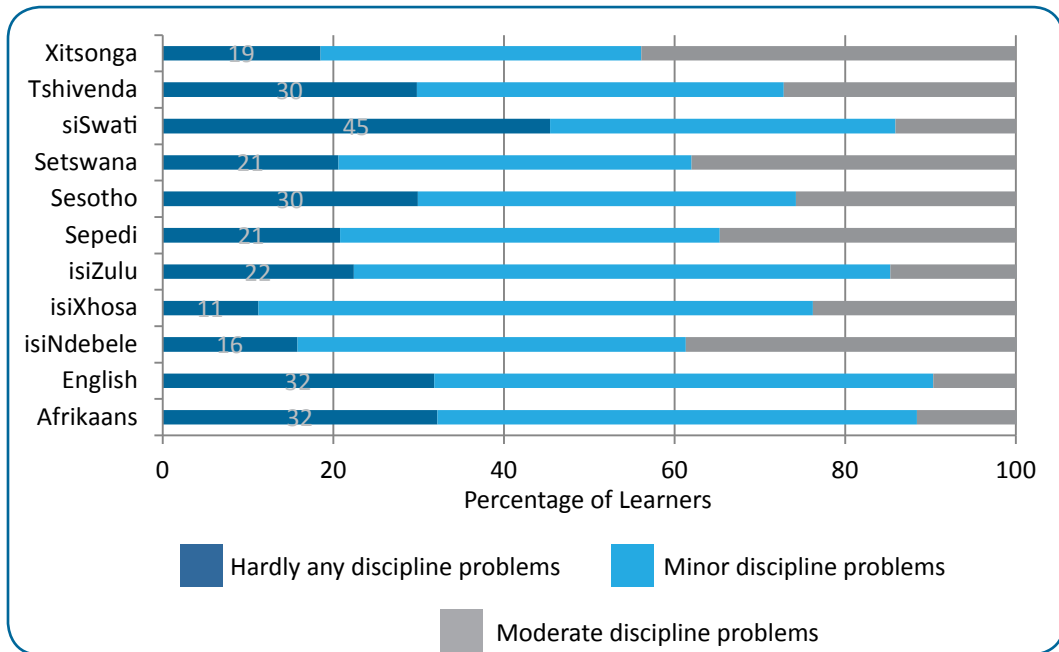


Figure 7.8: prePIRLS 2011 Principal Reports on Discipline Problems

While a pattern of declining achievement would be expected as discipline problems increase in schools, it does not hold true for all languages, as can be seen specifically for schools testing in English, isiNdebele, isiXhosa, isiZulu, Sepedi, Setswana, Tshivenda and Xitsonga (see Figure 7.9). Moderate discipline problems<sup>25</sup> do not seem to be negatively associated with reading achievement scores, however it is suspected that a more pronounced pattern may be observed once serious discipline problems are encountered.

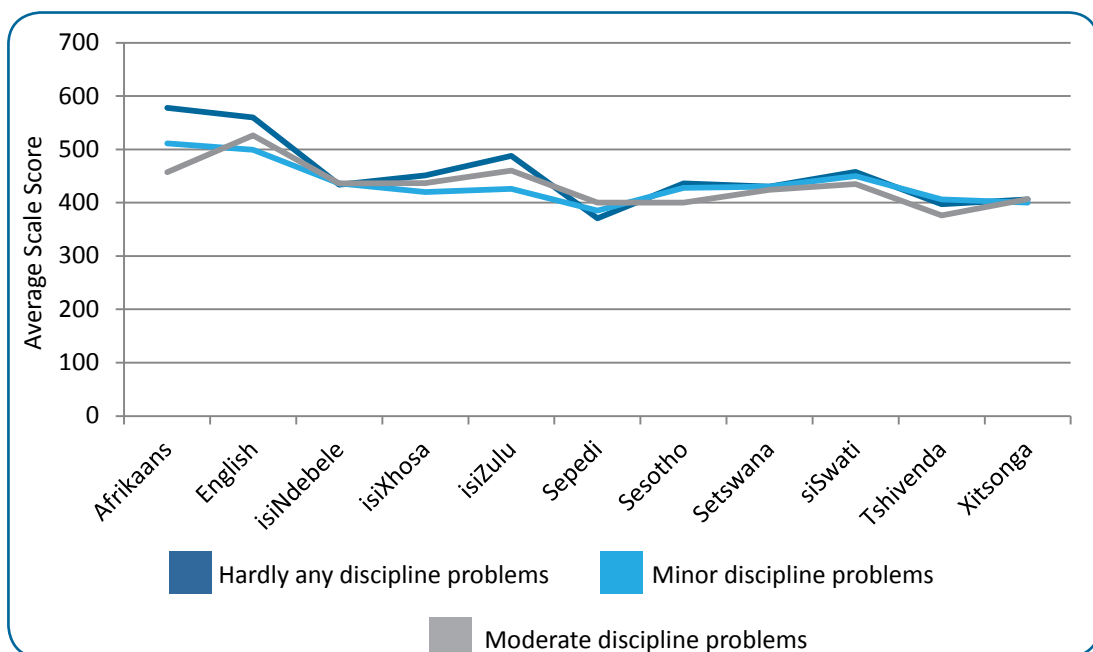


Figure 7.9: prePIRLS 2011 Principal Reports on Discipline Problems and Achievement

25. As measured for purposes of prePIRLS 2011 by limited occurrences of late arrival for school, absenteeism, classroom disturbance, cheating, profanity, vandalism, theft, intimidation among learners, including texts and e-mails, physical fights and learners' intimidation of teaching staff.



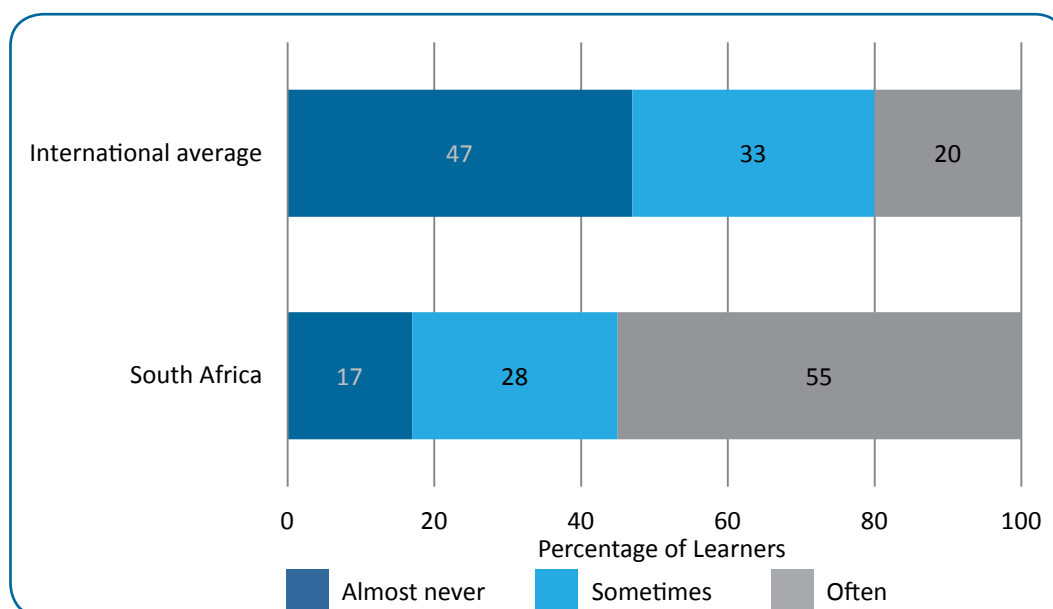
The relationship between discipline and achievement seemed more pronounced amongst the schools tested in PIRLS and Grade 5. More than half of the principals of Grade 5 learners (54%) had principals who reported discipline as a *minor problem* in their schools. For learners in schools where discipline was a *moderate problem*, reading achievement was negatively affected at 336 points (SE=27.6), compared to reading achievement of 470 (SE=14.5) for learners in schools where discipline was *hardly* a problem.

**Table 7.2: PIRLS 2011 Principal Reports on Discipline Problems**

|                  | Hardly any discipline problems |                     | Minor discipline problems |                     | Moderate discipline problems |                     |
|------------------|--------------------------------|---------------------|---------------------------|---------------------|------------------------------|---------------------|
|                  | % of learners                  | Average achievement | % of learners             | Average achievement | % of learners                | Average achievement |
| <b>Afrikaans</b> | 27                             | 467.0               | 65                        | 432                 | 8                            | 395                 |
| <b>English</b>   | 32                             | 470                 | 51                        | 399                 | 17                           | 327                 |

#### 7.1.4 Learners Bullied at School

Internationally, 47% learners are almost *never bullied* at school, while 20% are bullied *about weekly*. PIRLS 2011 introduced measures of bullying at schools to indicate the frequency of bullying as *non-occurring, occurring about monthly or occurring about weekly*.



**Figure 7.10: Frequency of Bullying of Grade 4 Learners Internationally and in South Africa**

However, nationally, 55% of Grade 4 learners who participated in prePIRLS 2011 indicated that they were bullied at least weekly.

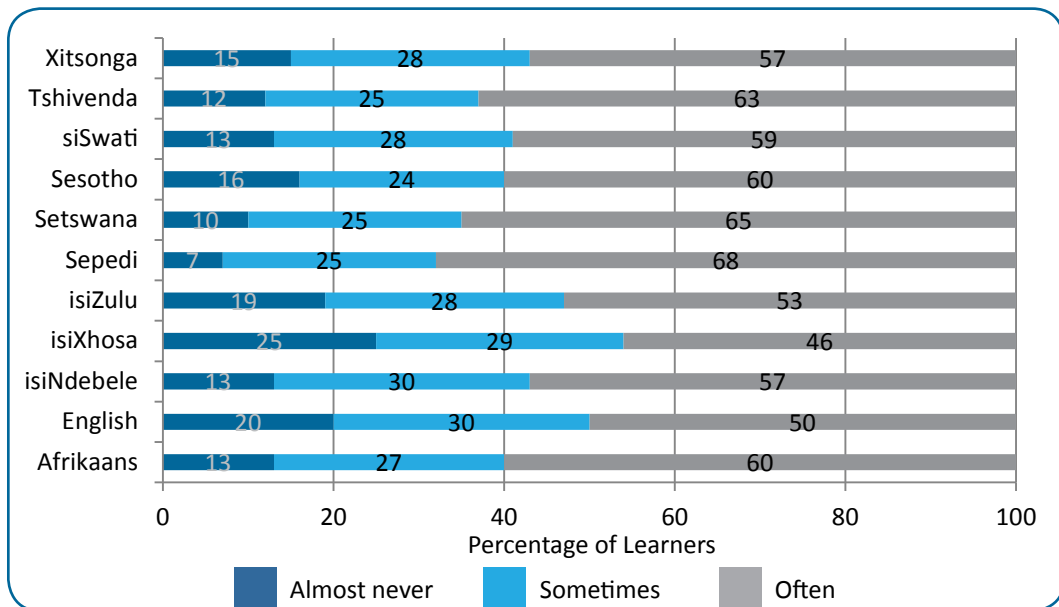


Figure 7.11: prePIRLS 2011 Grade 4 Learner Reports on Bullying at School

At least half of the learners across all the languages tested (see Figure 7.11), (except for isiXhosa) experienced bullying on a weekly basis. While the current data provides information on the frequency of bullying, it does not provide insight into the intensity of such bullying or whether recent tendencies, as regularly reported by the media, of cyber- and text-bullying plays a role in primary schools.

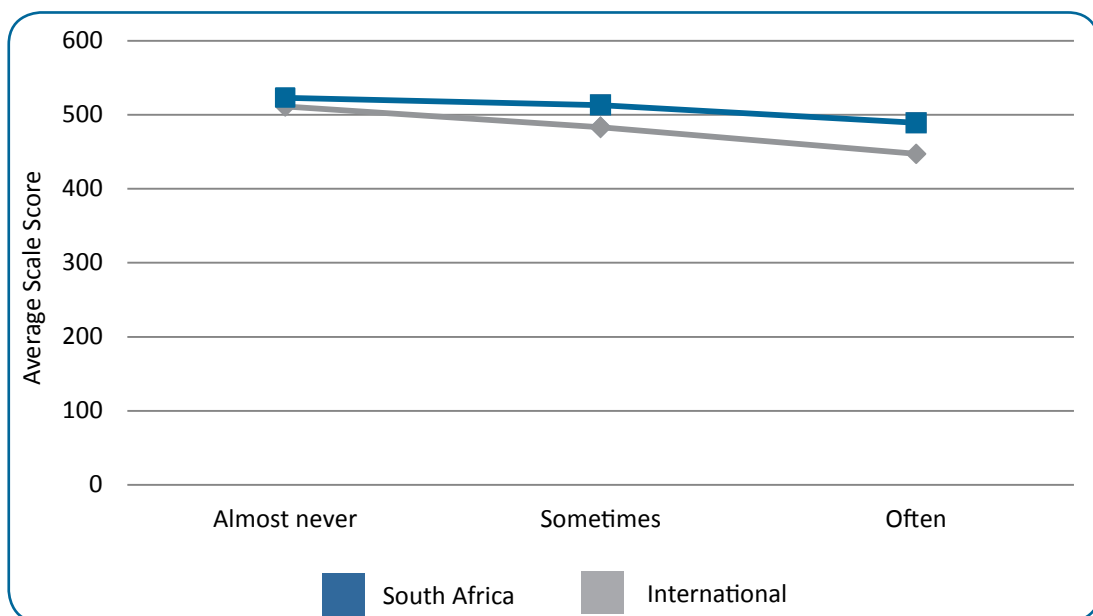


Figure 7.12: Grade 4 Learner Reports on Bullying at School and Achievement Internationally and Nationally

A similar finding was obtained from the Grade 5 data. In South Africa, just under a half (48%) of Grade 5 learners reported that they were bullied almost weekly. Achievement patterns for the overall PIRLS 2011 sample shows that where bullying did not occur, reading achievement could be expected to be at 500 points (SE=9.3), whereas bullying on a weekly basis coincided with an overall score of 386 points (SE=8.4). The results for Grade 5 differ for Afrikaans and English learners, revealing more frequent bullying taking place amongst the former (see Figure 7.13).

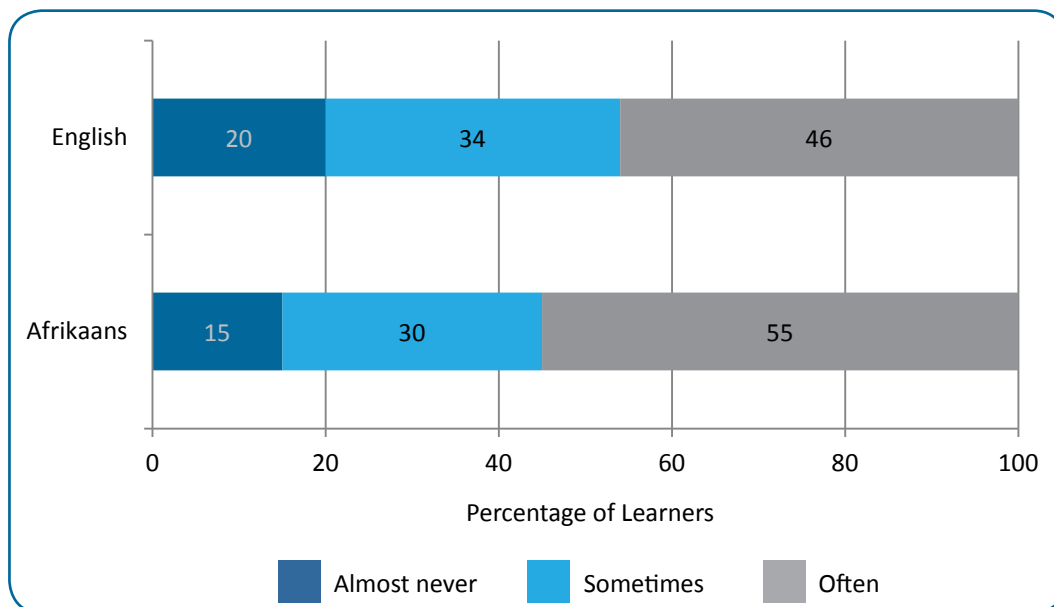


Figure 7.13: PIRLS 2011 Grade 5 Learner Reports on Bullying at School

## 7.2 prePIRLS and PIRLS 2011 School Resources for Teaching Reading

In this section, the school resources available for the teaching of reading to Grades 4 and 5 learners, as well the achievement of the learners in prePIRLS and PIRLS are presented. It includes reports on shortages of reading resources, the working conditions for teachers, and availability of library books and computers.

### 7.2.1 Reading Resource Shortages

The principals were asked about school and classroom resources and the extent to which teaching reading was affected by shortages thereof. In the South African schools tested in prePIRLS, almost all learners (96%) were affected (only 4% considerably) by shortages, with only 4% not affected. The achievement shows a strong relationship to the shortages (see Figure 7.14), with schools not affected by shortages achieving more than 100 points more (547 points) than those affected a lot (414 points).

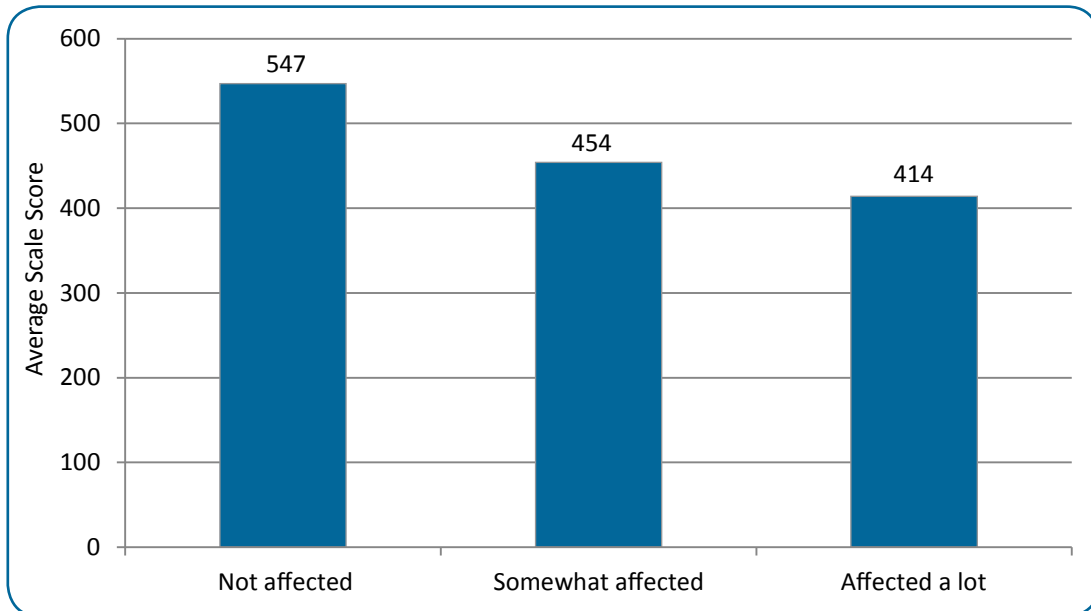


Figure 7.14: The Extent to which prePIRLS Schools are Affected by Shortages and Achievement

Amongst the African languages, the prePIRLS schools learners affected by the shortages were those tested in isiXhosa (12%), Setswana (13%) and Xitsonga (14%). Figure 7.16 provides a breakdown of achievement per language linked to reports on shortages.

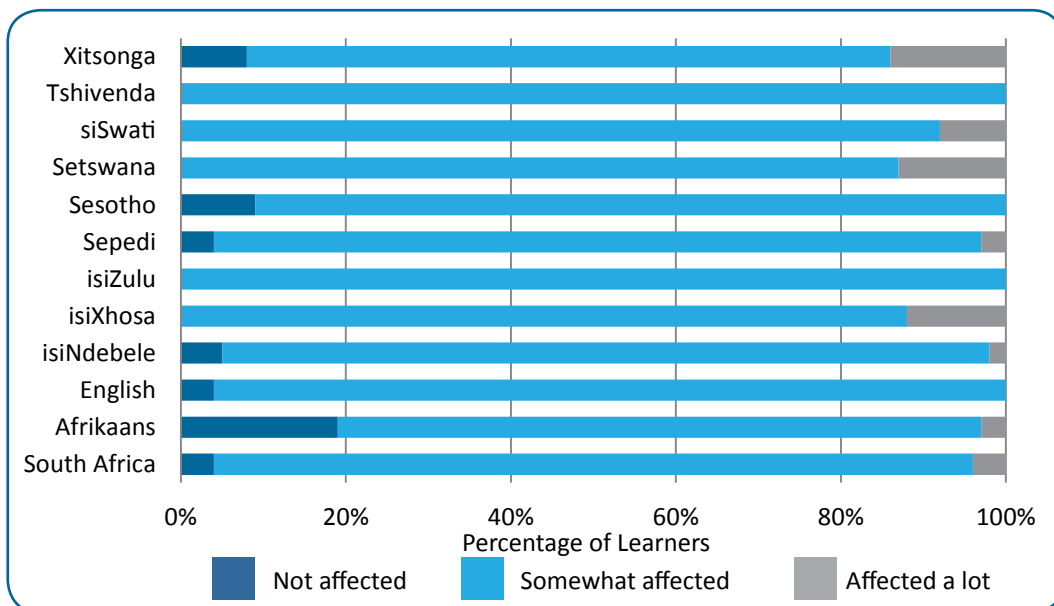


Figure 7.15: The Extent to which prePIRLS Schools are Affected by Shortages

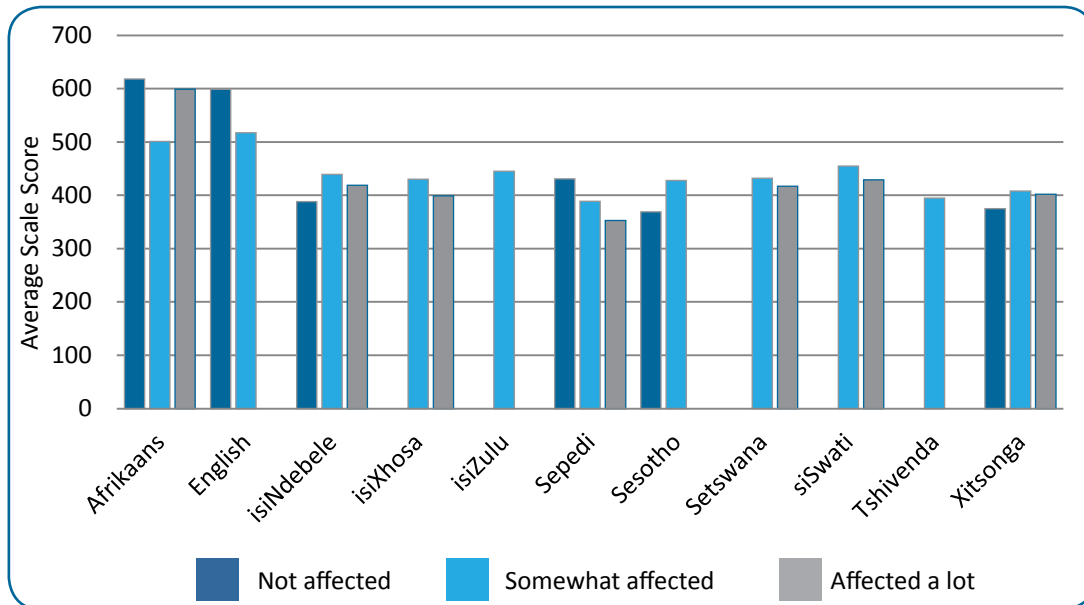


Figure 7.16: The Extent to which prePIRLS Schools are Affected by Shortages and Achievement

The PIRLS schools in both tested language groups also had some learner percentages *affected a lot*, by reading shortages, (3% for Afrikaans and 6% for English). The overall Grade 5 results for PIRLS and those for the English group, appear to be associated with the shortages. Schools not affected had learners who achieved the highest scores whilst those affected a lot had learners who achieved lower scores. However, the Afrikaans group did not follow this pattern, with the learners from schools *not affected* and those *affected a lot* achieving similar scores (see Figure 7.17).

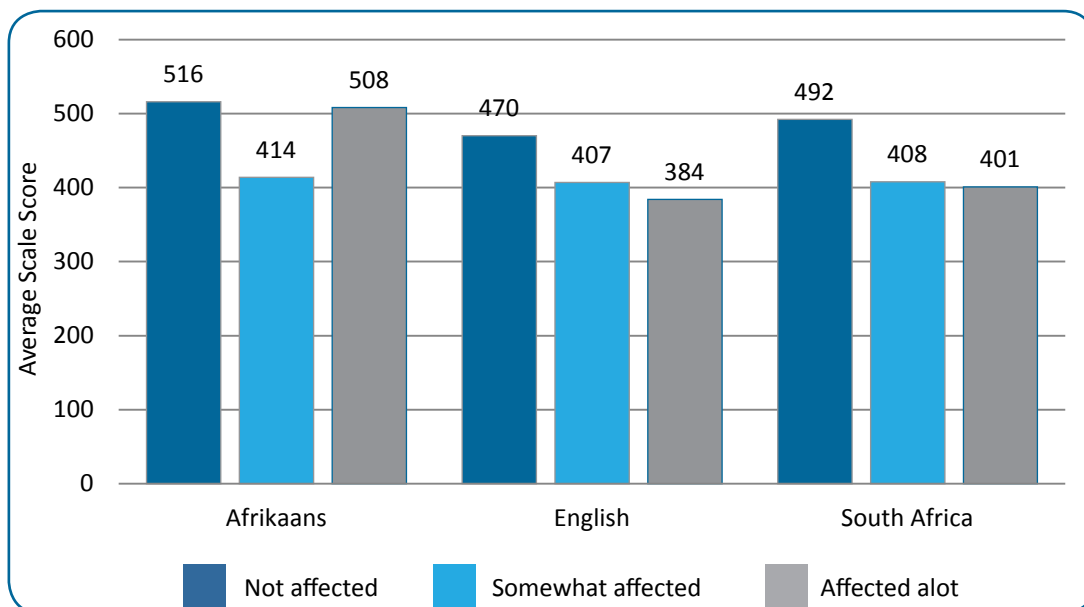


Figure 7.17: The Extent to which PIRLS Schools are Affected by Shortages and Achievement

## 7.2.2 Teacher Reports on Working Conditions

The international report (Mullis et al., 2012) suggests that poor working conditions may be linked to teacher shortages. As teacher shortages are an important policy and planning issue, PIRLS collected information about the teachers' working conditions around five potential problem areas (see textbox). Internationally, there was a diverse response, but only 27% of learners were in schools in which teachers had hardly any problems, with a further quarter in those which had moderate problems.

Whilst this was also the case for the Grade 5 South African PIRLS participants, who followed the international pattern, the Grade 4 prePIRLS schools were different. Overall, only 12% of learners had teachers who reported hardly any problems, while almost half of the learners were in schools in which there were moderate problems.

The scale on working conditions asked teachers about:

- *The school building needing significant repair*
- *Classrooms being overcrowded*
- *Teachers having too many teaching hours*
- *Teachers not having adequate workspace*
- *Teachers not having adequate instructional materials and supplies*

However, the situation varied considerably across the schools tested, from 28% of English learners to 81% of the Sepedi learners in schools reporting moderate problems. Tshivenda, isiZulu, English and Afrikaans groups seemed to have a higher percentage of learners than the other languages who had hardly any problems (see Figure 7.18).

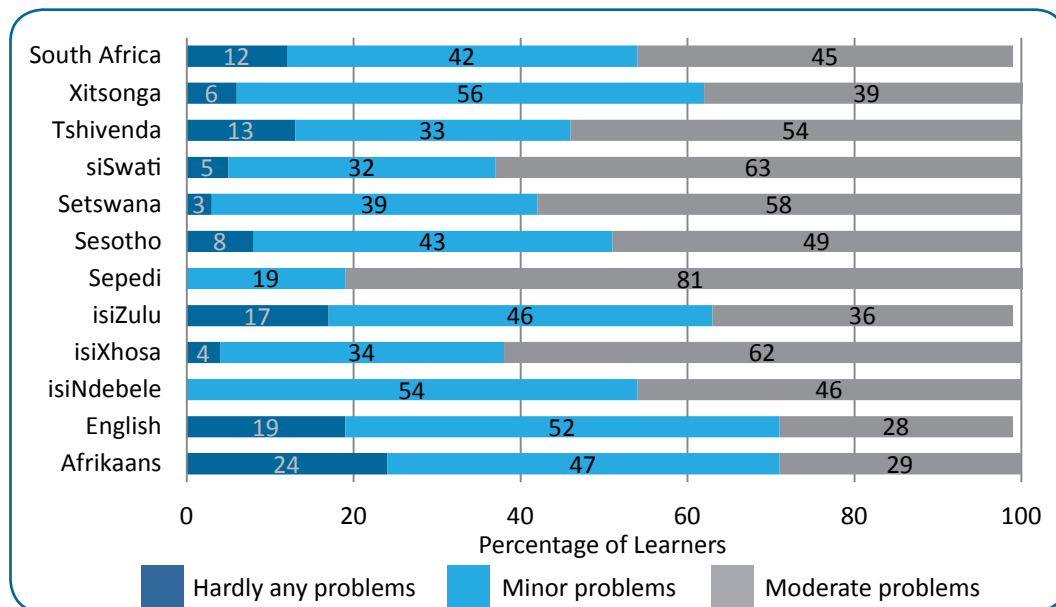


Figure 7.18: Grade 4 Teachers Report on Extent of Problems in Working Conditions

Internationally, learners whose teachers reported *moderate problems* achieved lower scores than those in schools with *hardly any problem*. The national findings are similar, with learners in schools with hardly any problems achieving 60-95 points more than those in schools with moderate problems. This pattern was also visible for Afrikaans, English, isiZulu, siSwati and Xitsonga, but not for the other languages, where no relationship was observed (see Figure 7.19).

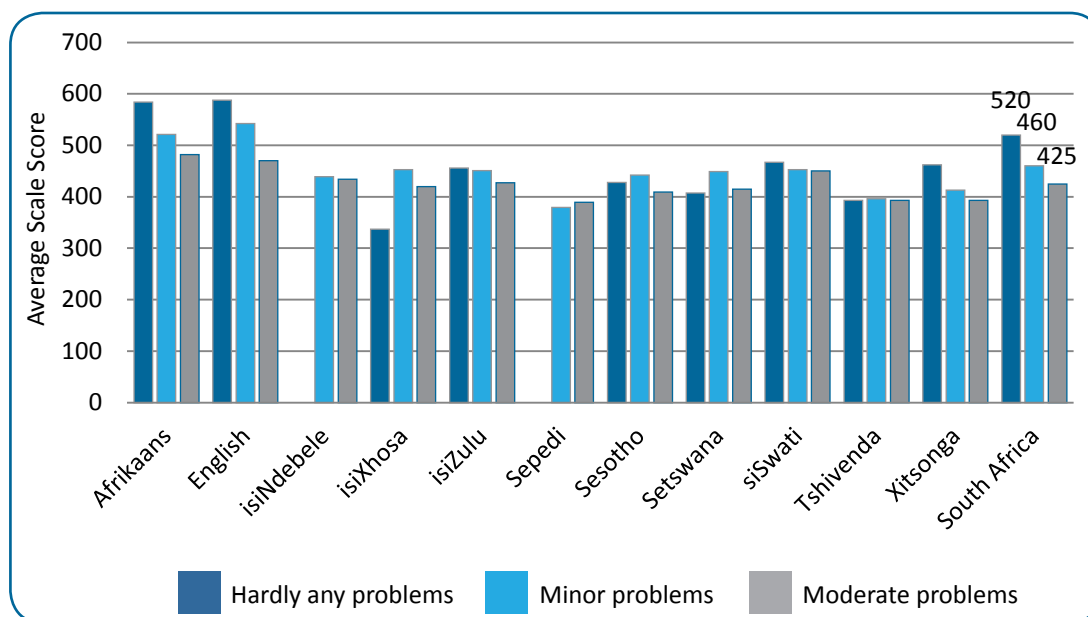


Figure 7.19: Grade 4 Teachers Report on Extent of Problems in Working Conditions

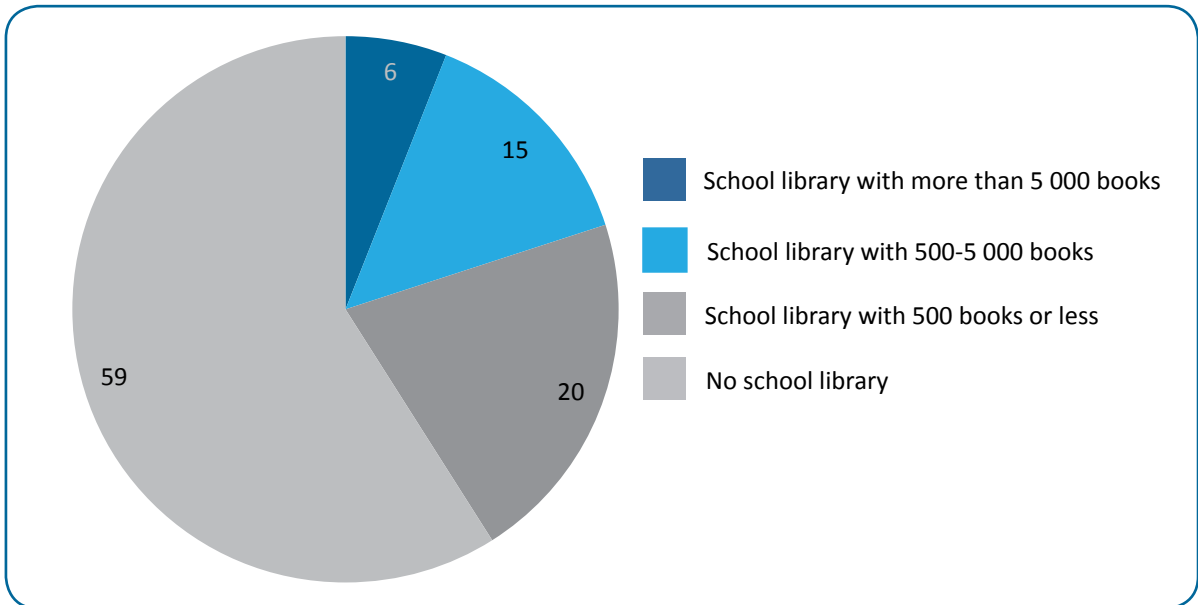
Findings for Grade 5 South African teachers were very similar to the international experience, and learners in classes where teachers reported *hardly any problems* achieved 520 points compared to 454 points achieved by learners in classes where *moderate problems* were found.

### 7.2.3 Availability of School Libraries and Library Books

Libraries provide an important and essential resource for education to schools, teachers, learners and members of the community. Internationally, evidence reveals that library users are much more likely to read above their expected level, enjoy reading, and have positive attitudes to reading (Clark, 2010, in Mullis et al., 2012).

Primary schools tend to have smaller libraries than do secondary schools, which should be considered in the light of the PIRLS findings. Internationally, 28% of learners were in schools which well-resourced library (5 000+ books). Only 14% of learners are at schools with no library.

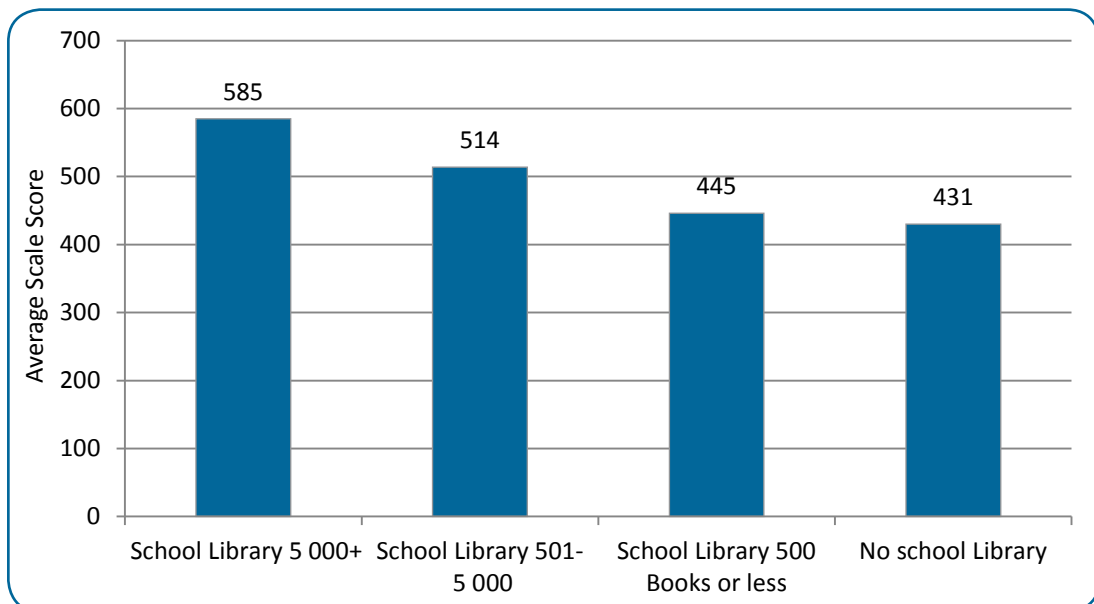
In South Africa, only 6% of Grade 4 learners attended schools with well-resourced libraries, while 22% of the Grade 5 learners went to schools with well-resourced libraries. More than half (59%) of South African Grade 4 learners were in schools without school libraries, and nearly a third (31%) of Grade 5 learners were in a similar position.



**Figure 7.20: prePIRLS Grade 4 Learners in Schools with Libraries**

The large differences between the Grade 4 and Grade 5 schools may well reflect the difference in the two samples. The Grade 4 was a nationally representative sample for all languages, however the Grade 5 was only a national representative sample for schools where the LoLT is Afrikaans and English.

Nonetheless, a positive relationship exists between achievement and the existence of school libraries at both Grade levels, as can be seen in Figures 7.21 and 7.22.

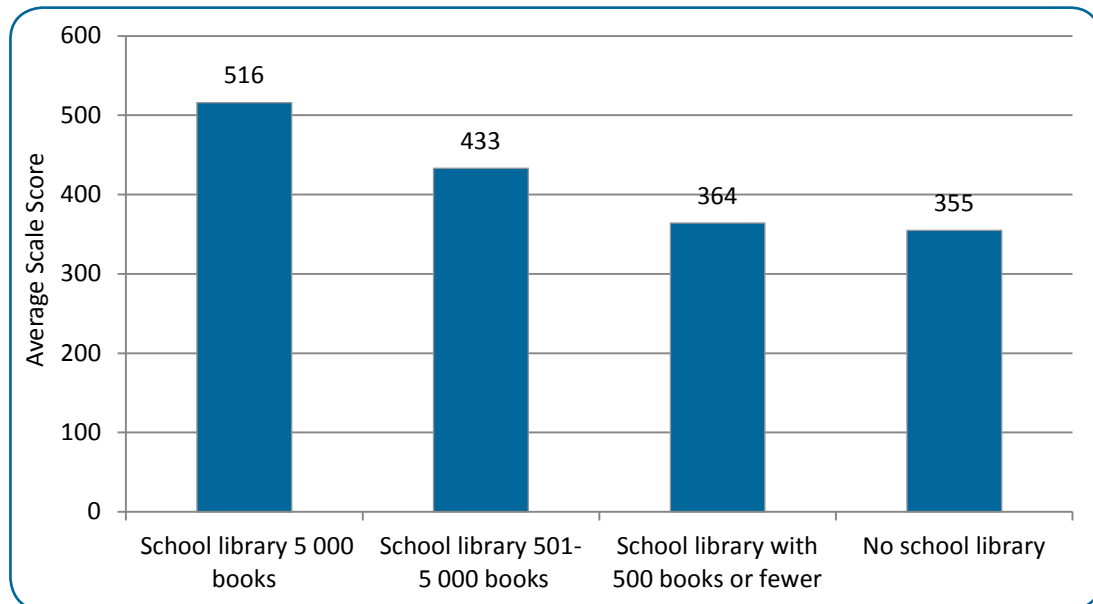


**Figure 7.21: prePIRLS Grade 4 Learners at Schools with School Libraries and Achievement**



There was a 155-point difference in the Grade 4 reading achievement between learners at schools with school libraries. Those at schools with the most resourced library attained 585 points, which was comparable to the achievement of the top performing countries in PIRLS. In contrast, schools with no library resources achieved 430 points. At the Grade 5 level, this difference was 161 points. The learners from schools with well-resourced libraries attained 516 points compared to 355 points achieved by learners at schools with no libraries.

These substantial differences far exceed anything seen in the international data and probably reflect the inequalities that still exist in the education system and in society generally.



**Figure 7.22: PIRLS Grade 5 Learners at Schools with School Libraries and Achievement**

### 7.3 Conclusions

Almost half of the Grade 4 learners came from schools in remote rural areas and achieved more than 100 points less than their urban peers. About a quarter of the learners in Grade 5 were in remote rural schools. One in five learners attended a school where the inadequacy of the resources was reported to be hampering teaching and learning. However, internationally it was reported that there were countries where significantly more learners were negatively affected and where almost 4 out of 5 learners were affected in this way. Learners in schools where teaching and learning is negatively affected by shortages of reading resources, achieved more than 100 points less than learners in school which were not affected by shortages. More than half of the learners in the Grade 4 sample attend schools with no school libraries and these schools achieved, on average 155 points less than schools with libraries.

Almost half of the learners attended schools where there were “moderate” problems with teachers’ working conditions. Learners in schools where teachers had hardly any problems with their conditions achieved between 60-95 points more than those learners whose teachers had moderate problems. Learners in schools where a very high emphasis was placed on academic expectations by the principals and teachers achieved much higher scores than those in schools where expectations were lower.

More than half of the learners in Grade 4 experienced being bullied weekly, which is substantially different to all the other countries in the study. These children on average tended to achieve more than 50 points less than learners who were not bullied as often. Children who were frequently bullied tended to live in rural or township environments, be in large classes and come from low socio-economic home backgrounds.

## CHAPTER 8

# INSIDE THE CLASSROOM: TEACHER, INSTRUCTION, RESOURCE AND LEARNER FACTORS

Classroom teaching and learning is a central focus for change. Teacher attributes, their teaching practices, classroom resource access and managing the impact of learner factors on the quality of instruction are crucial to the successful implementation of the reading literacy curriculum. Teachers interpret the curriculum to formulate their own roles in classroom activities based on their backgrounds and experience. Moreover, their teaching is based on their use of the resources available and in consideration of the characteristics of the learners in their classes.

In this chapter, teacher background, instructional, resource and learner attribute considerations are presented from the PIRLS/prePIRLS 2011 data at Grades 4 and 5. Firstly, teacher experience, age profiles, highest level of formal education and feelings about the teaching profession are deliberated. In terms of their classroom instruction, teacher reports on time spent on language and reading, the development of reading skills and strategies, and homework assignments are discussed. School level indications of when reading strategies are introduced are also provided to shed light on school curriculum implementation structures, which may impact classroom practices. Thereafter, the potential impact of selected learner factors on classroom instructional quality is considered via reports on learner engagement in reading activities and the prevalence of learners lacking prerequisite knowledge. Finally, reports on the availability of reading instructional resources, in the form of reading materials and a classroom library in teachers' classes, are presented.

### 8.1 Teacher Experience, Training and Feelings about the Profession

In this section, findings related to teachers' years of experience and age profiles, their formal education and training and indicators of their reported levels of career satisfaction are considered.

#### 8.1.1 Teachers' Years of Experience and Age Profiles

Mirroring the international averages for both studies, the teachers of the learners who completed the Grade 4 prePIRLS and Grade 5 PIRLS assessments had on average 17 years of teaching experience overall. This is two years more than the reported average of 15 years from PIRLS 2006.

In a country where future replenishment of teachers is a critical issue, it is important to consider the reported age ranges of teachers who taught both the Grade 4 prePIRLS and Grade 5 PIRLS samples of learners (see Figure 8.1). Fewer than 2% of the Grade 5 learners and 1% of the Grade 4 learners were taught by teachers under the age of 25 years. Five percent of Grade 4 learners and 8% of Grade 5 learners had teachers in the age range of 25 to 29 years. Many of learners at Grade 4 (51%) and Grade 5 (46%) had teachers in the age range of 40 to 49. Congruent with the results for PIRLS 2006, the highest performing learners in Grade 4 and Grade 5 were taught by teachers younger than 29 and older than 60 years.

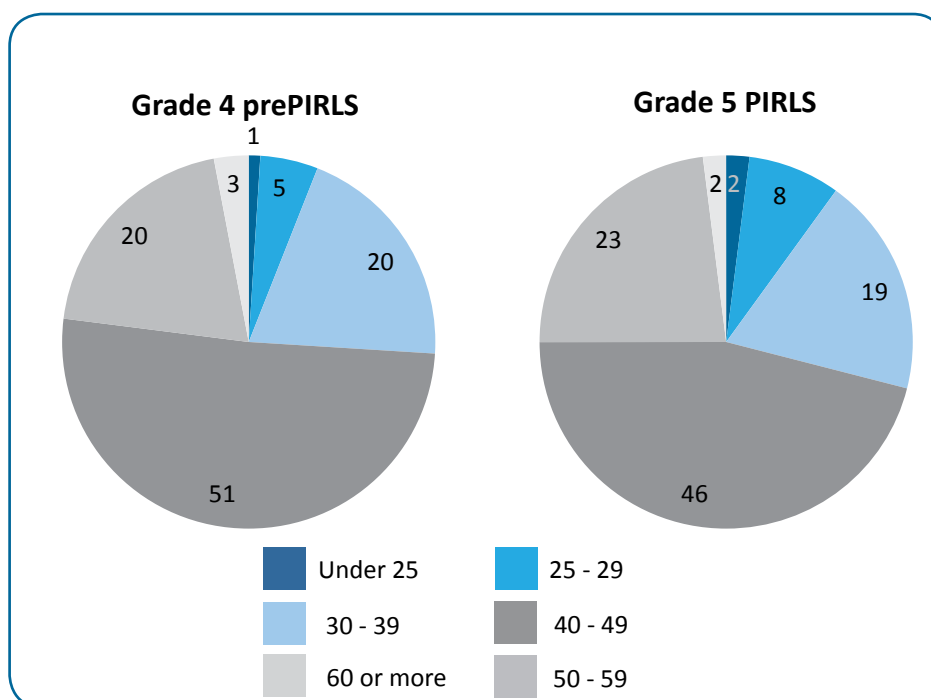


Figure 8.1: Percentage of 2011 prePIRLS Grade 4 and PIRLS Grade 5 Learners, Teachers Age Profile

### 8.1.2 Teachers' Formal Education and Training

On average internationally, 26% of learners were taught by reading teachers with a postgraduate university degree. More than 60% of South African prePIRLS Grade 4 learners were taught by teachers whose highest level of formal education completed was either post-secondary training for example, college (33%) or a first degree (32%). Similarly, most PIRLS Grade 5 learners (77%) were also taught by teachers whose highest level of education was post-secondary training (37%) or a first degree (40%). Notably, 15% of the Grade 4 learners and 9% of the Grade 5 learners had teachers who indicated that their highest level of formal education was the completion of Grade 12.

Grade 4 learners taught by teachers with a university degree attained the highest mean scores. In the case of the Grade 5 learners, those taught by teachers with an honours degree achieved the highest reading achievement.

### 8.1.3 Teacher Career Satisfaction

Teacher reports regarding their career satisfaction revealed their generally positive dispositions towards aspects of their teaching careers. The majority of Grade 4 and 5 learners had teachers who *agreed a lot* that they were content in their profession, satisfied being a teacher at their school and planned to continue their careers as teachers. Teachers were also generally positive about the social support in their schools. The majority of the learners at both grades had teachers who indicated that they did not feel isolated in their teaching roles and did not feel that they lacked support from their colleagues.

Importantly, nearly all of the Grade 4 (97%) and Grade 5 (99%) learners had teachers who *agreed a lot* that their work as a teacher is important. Nevertheless, 50% of Grade 4 and 49% of Grade 5 learners had teachers who *agreed a lot* that they had more enthusiasm at the start of their teaching careers than at the time of the survey. Moreover, in comparison to the other very positive reporting for these career satisfaction indicators, far fewer Grade 4 (46%) and Grade 5 (42%) learners had teachers who *disagreed (a lot)* when asked about feelings of frustration as a teacher, which may mean that there are elements of the teachers' careers that are not as positive as they could be.

To give indications of teachers' satisfaction with their work, in both the prePIRLS 2011 and PIRLS 2011 teacher questionnaires, they were asked the degree of agreement with a number of statements, including

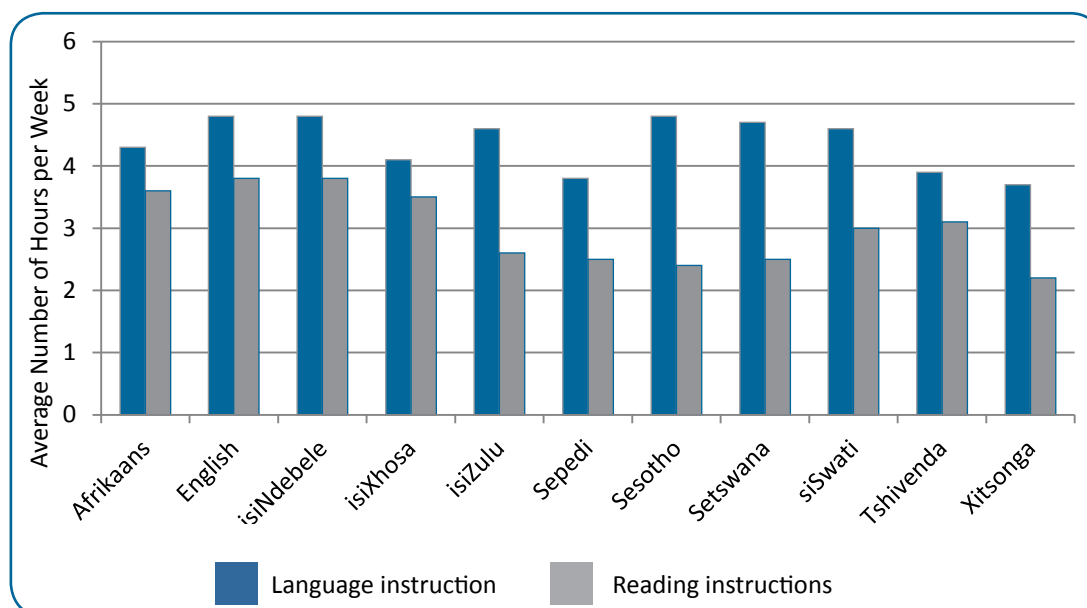
- *I am content with my profession as a teacher*
- *I am satisfied with being a teacher at this school*
- *I had more enthusiasm when I began teaching than I have now*
- *I do important work as a teacher*
- *I plan to continue as a teacher for as long as I can*
- *I am frustrated as a teacher*
- *I feel isolated in my teaching role*
- *I receive no support for teaching from my colleagues*

## 8.2 Selected Classroom Reading Literacy Instructional Factors

This section presents findings on reported instructional time spent on language and reading, teacher reports on the development of reading skills and strategies, principal reports on when emphasis is placed on reading skills and strategies in the early grades and reports on the amount of homework assigned for reading.

### 8.2.1 Teacher Reports on Instructional Time spent on Language and Reading

Results from PIRLS 2006 showed that a third of Grade 4 teachers undertook reading instruction with learners every day. However, the PIRLS 2006 results showed little relationship between hours taught and achievement due to complex factors such as instructional time not spent in effective and productive ways in (Howie et al., 2008). As part of curricular implementation, reading instruction is generally embedded within the Language curriculum for Intermediate Phase instruction. Figure 8.2 illustrates prePIRLS 2011 teacher reports on the number of hours per week spent on reading and language for each language.



**Figure 8.2: Average Number of Hours Per Week spent on Language and Reading Instruction by Language**

As aligned to curriculum structuring, across all 11 languages, average language instruction time allocation takes precedence over reading instruction time. The greatest differences between the two were observed for teachers of isiZulu, Sepedi, Sesotho and Setswana learners. The average number of hours for instruction in the language per week does not exceed five hours for teachers from any of the languages, while reading instruction specifically (regardless of whether formal reading instruction time is available to the teacher) is lower, with as little as 2.5 hours spent per week on average by teachers of isiZulu, Sepedi, Sesotho and Setswana learners.

Figure 8.3 illustrates the average number of hours per week spent on language and reading instruction respectively as reported by teachers of Grade 5 learners who participated in PIRLS 2011. The average number of hours per week spent on language and reading instruction, by teachers of Grade 5 learners tested in both Afrikaans and English remains disappointingly low. These small amounts of time are accentuated considering that the averages represented here include any reading that takes place in the classroom, regardless of formally scheduled time that is set aside specifically for that purpose.

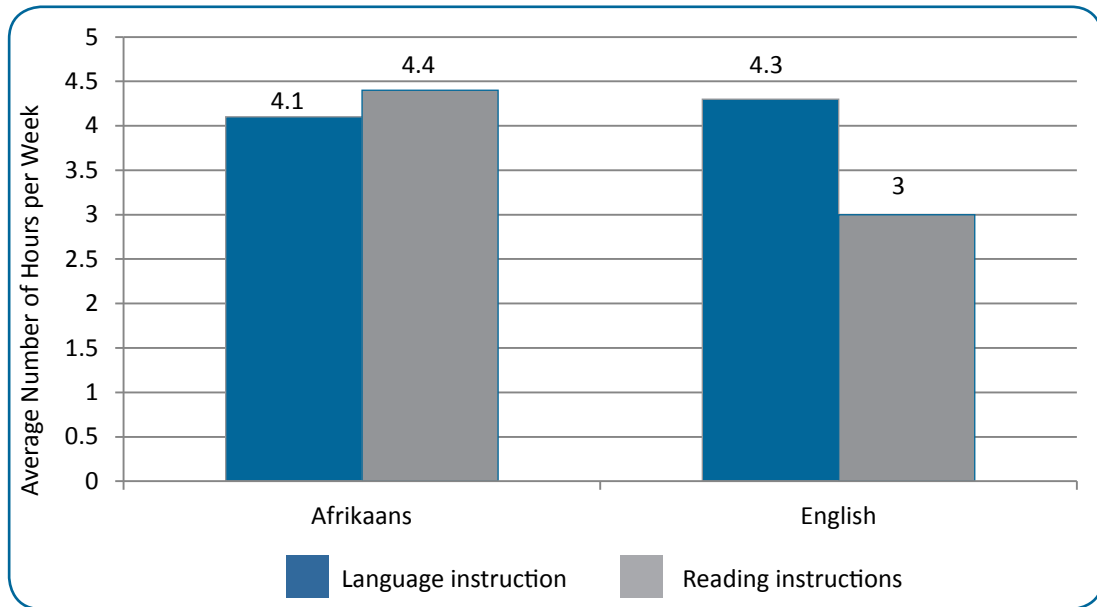


Figure 8.3: Average Number of Hours Per Week spent on Language and Reading Instruction by Language

### 8.2.2 Teacher Reports on The Development of Reading Skills and Strategies

Comprehension skill and strategy development is crucial for successful reading literacy progression. Teaching even one comprehension strategy can improve learners' comprehension (Gill, 2008). In spite of this, comprehension skill and strategy instruction has not been sufficiently foregrounded in South African curriculum documents meaning that the fundamental need to develop learners' higher order thinking and reasoning abilities for learning throughout schooling is not adequately accentuated (Zimmerman, 2010).

To give indications of the frequency of learners' opportunities to develop their comprehension skills and strategies, teachers were asked how often (every day or almost every day; once or twice a week; once or twice a month; never or almost never) they asked learners to do these activities:

- a) Locate information within the text
- b) Identify the main ideas of what they have read
- c) Explain or support their understanding of what they have read
- d) Compare what they have read with experiences they have had
- e) Compare what they have read with other things they have read
- f) Make predictions about what will happen next in the text they are reading
- g) Make generalisations and draw inferences based on what they have read
- h) Describe the style or structure of the text they have read
- i) Determine the author's perspective or intention
- j) Ask learners their feelings about the text
- k) Ask learners their personal opinions about the text
- l) Ask learners to discuss the title, plot, characters, setting of the text

For prePIRLS and PIRLS 2011, teachers were asked about the frequency of twelve activities to develop learners' reading comprehension skills and strategies (see items a to l) in the text box alongside. Most learners' teachers reported either doing these activities every day or almost every day or once or twice a week. Thus, frequent daily or weekly teaching of most skills and strategies for reading comprehension development is reportedly undertaken at Grades 4 and 5. Skills and strategies a) to d) were very prominent in terms of the combined percentages of learners whose teachers developed these either daily or weekly (84% and more learners at each grade for each item). Skill and strategy development by means of: e) comparison with other reading; j) asking feelings about the text; and k) asking personal opinions about the text, were the next most frequent daily and weekly activities (76% plus learners at each grade). For the Grade 4 prePIRLS learners, approximately 79% also reportedly made predictions (f) on a daily or weekly basis compared to 68% of their counterparts at Grade 5.

### 8.2.3 Principal Reports on the Emphasis in Early Grades on Reading Skills and Strategies

Principal reports on the emphasis on similar reading development foci at earlier grades shed further light on the importance of these skills and strategies for achievement. Indeed, teachers at Grades 4 and 5 levels may be dealing with a backlog caused by a lag in the introduction of these skills and strategies.

Principals gave responses about the earliest grade at which each of eleven reading skills and strategies first received attention. A scale was compiled in which the grade at which the 11 skills and strategies were emphasised was determined.

Internationally, on average, 68% of Grade 4 learners were in schools where these skills and strategies were emphasised at Grade 3. For prePIRLS at Grade 4 (61%) as well as for PIRLS at Grade 5 (65%), a Grade 3 emphasis on these skills and strategies is also apparent for the majority of South African learners. As Figure 8.4 below points out, an exception to this overall pattern in emphasis in South African primary schools is Sepedi, where the majority of Grade 4 learners had principals who reported that the 11 skills and strategies were emphasised at Grade 4 or later on average. More principals, on average, indicated that the emphasis occurred at Grade 4 or later for Xitsonga (41%) and isiNdebele (44%) learners than for the other languages. Figure 8.5 presents the skills and strategy implementation emphasis for the PIRLS Grade 5 learners.

Principals were asked at which grade (grade 1, grade 2, grade 3, grade 4, not in these grades) the following reading skills and strategies first received a major emphasis in instruction at their school:

- *Reading isolated sentences*
- *Reading connected text*
- *Locating information within the text*
- *Identifying the main idea of a text*
- *Explaining or supporting understanding of a text*
- *Comparing a text with personal experience*
- *Comparing different texts*
- *Making predictions about what will happen next in the text*
- *Making generalisations and drawing inferences based on the text*
- *Describing the style or structure of a text*
- *Determining the author's perspective or intention*



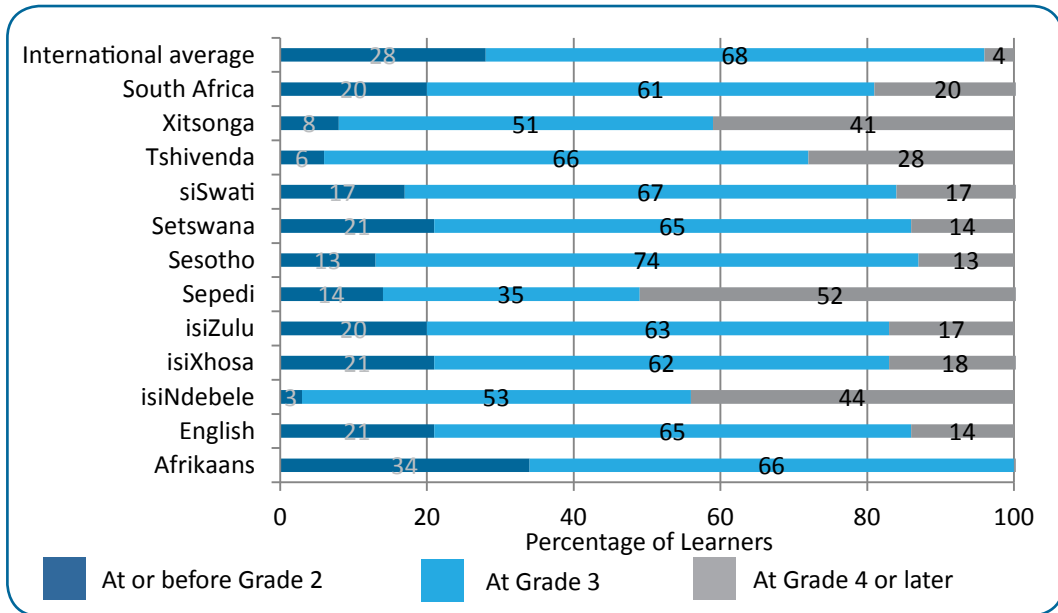


Figure 8.4: prePIRLS 2011 Grade 4 Emphasis in Early Grades on Reading Skills and Strategies

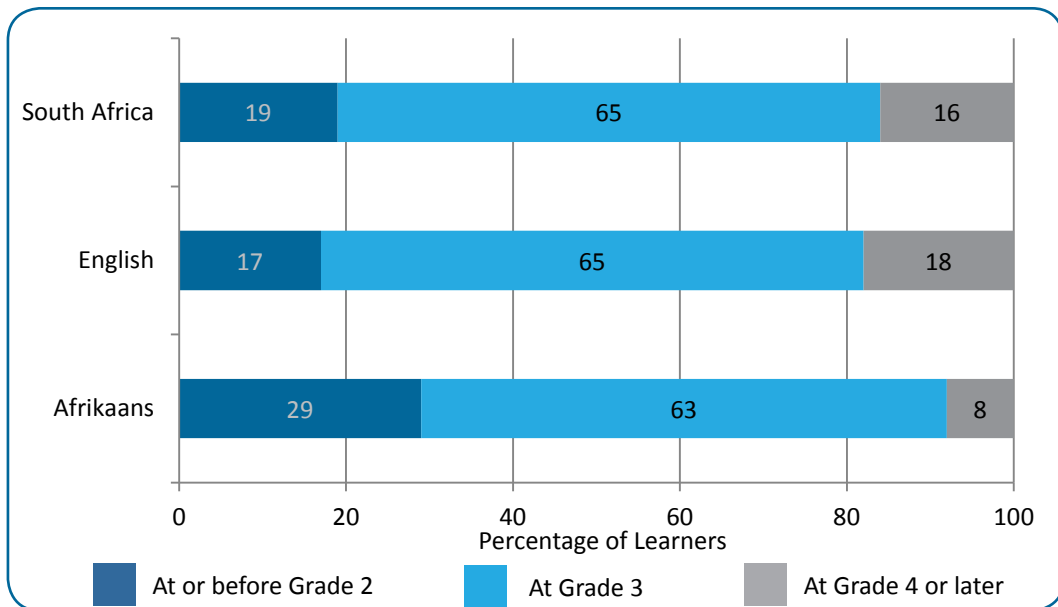


Figure 8.5: PIRLS 2011 Grade 5 Emphasis in Early Grades on Reading Skills and Strategies

As shown in Figures 8.6 and 8.7, average achievement internationally for PIRLS was higher for learners who had principals who reported that these strategies received emphasis at or before Grade 2 and lower for those learners in schools where these strategies were emphasised at Grade 4 or later. The same achievement profile is evident for prePIRLS at Grade 4 and PIRLS at Grade 5 in South Africa.

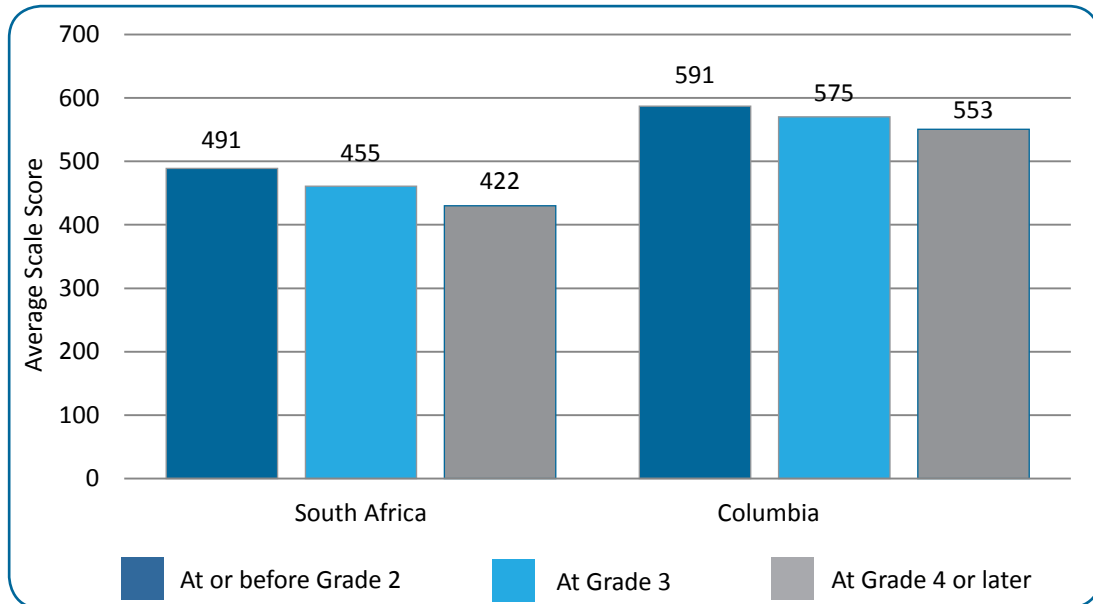


Figure 8.6: prePIRLS 2011 Grade 4 Achievement Profile by Emphasis in Early Grades on Reading Skills and Strategies

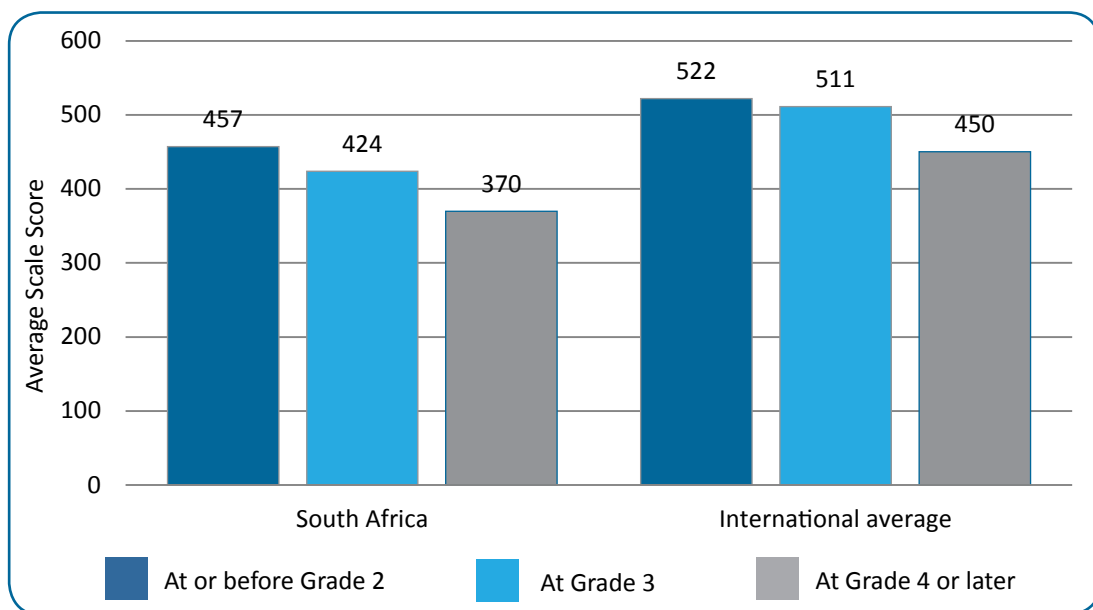
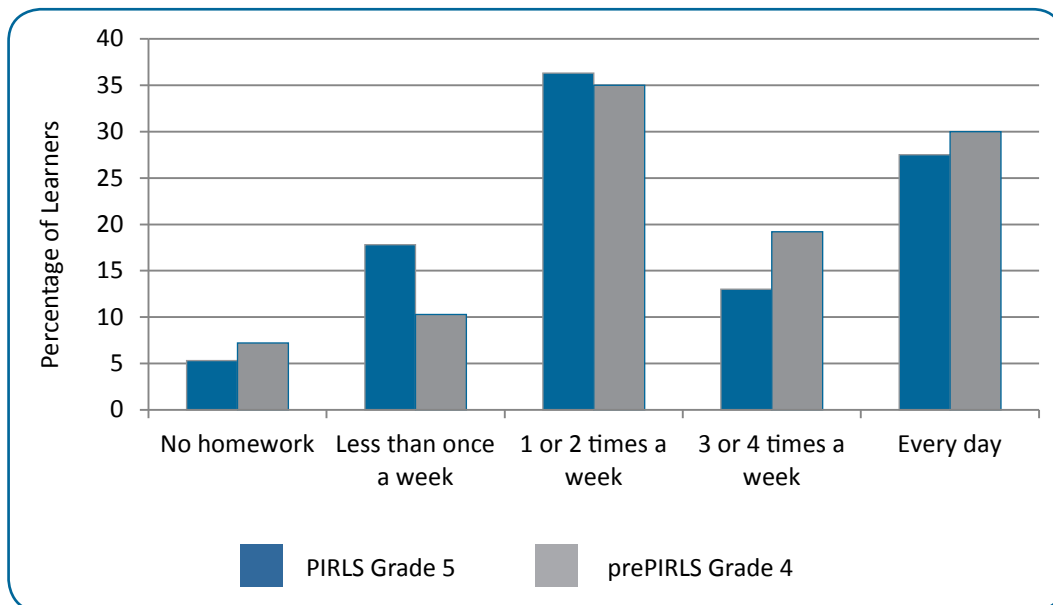


Figure 8.7: PIRLS 2011 Grade 5 Achievement Profile by Emphasis in Early Grades on Reading Skills and Strategies

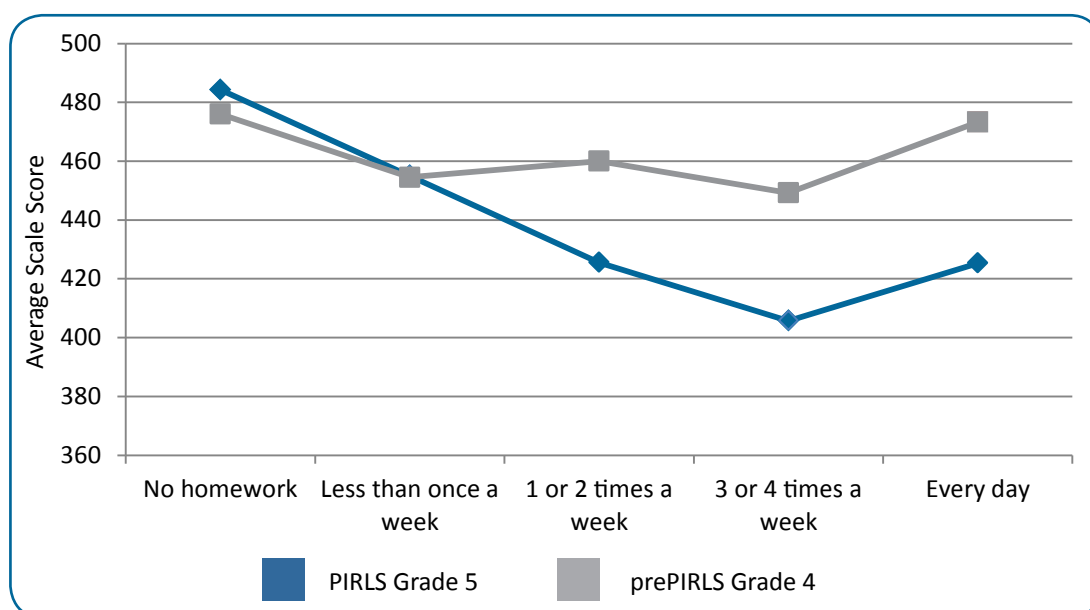
### 8.2.4 Teacher Reports on Homework Assignment

The teachers who participated in prePIRLS and PIRLS 2011 reported how often they assigned reading as part of homework (for any subject). Further investigation into the Grade 4 PIRLS 2006 findings (Zimmerman 2010), revealed that the majority of learners in classes with averages at the lowest achievement benchmarks received far less homework (*never, less than once a week or only one or two times a week*) for reading than the majority of their peers in classes with average performance levels at the PIRLS international benchmarks who were assigned reading for homework every day or 3 or 4 times a week. Figure 8.8 provides a breakdown of reporting on the frequency of homework assignment for the 2011 study.



**Figure 8.8: prePIRLS and PIRLS 2011 Teacher Reports on Assigning Reading as part of Homework**

For the learners who participated in PIRLS 2011, the highest percentage (36%) had teachers who reported assigning homework once or twice a week. A further 28% of the learners reportedly had homework assigned every day. For the prePIRLS 2011 learners, similar teacher allocations were evident with 35% of the learners being assigned homework once or twice a week and another 29% of the learners being given reading homework every day. As shown in Figure 8.9, a greater frequency of reading homework assignment did not necessarily link to higher learner achievement in either study. Reasons for this are not clear. Nevertheless, as lower achievement patterns are generally aligned to more reading homework assignment, this could indicate teachers’ acknowledgement of the need for more at home reading practice for struggling learners.



**Figure 8.9: prePIRLS and PIRLS 2011 Learner Achievement and Assigning Reading as part of Homework**

### 8.3 Learner Factors Influencing Teaching and Learning

In this section, reports about the learning profile characteristics of learners in their classes, which could limit the quality of teaching and learning, are presented. These characteristics include: learners' level of engagement during reading lessons and their levels of prerequisite knowledge.

#### 8.3.1 Learner Reports on their Level of Engagement during Reading Lessons

A learner scale *engaged in reading lessons* for their engagement during reading lessons was compiled from their degree of agreement with seven statements .

Forty-seven percent of Grade 4 learners considered themselves *engaged* in class during reading lessons. This group of learners' achievement was also the highest at 493 points (S.E = 3.9), compared to achievement of 452 (S.E = 4.2) points for the 45% of learners who are *somewhat engaged*, and achievement of 409 (S.E =4.9) points for 8% of learners who are *not engaged*.

For the Engaged in Reading Lessons scale, Learners were asked the extent (agree a lot; agree a little, disagree a little, disagree a lot) to which they agreed with these seven statements about their reading lessons:

- *I like what I read about in school*
- *My teacher gives me interesting things to read*
- *I know what my teacher expects me to do*
- *I think of things not related to the lesson*
- *My teacher is easy to understand*
- *I am interested in what my teacher says*
- *My teacher gives me interesting things to do*

An indication of learner engagement per language for prePIRLS is presented in Figure 8.10.

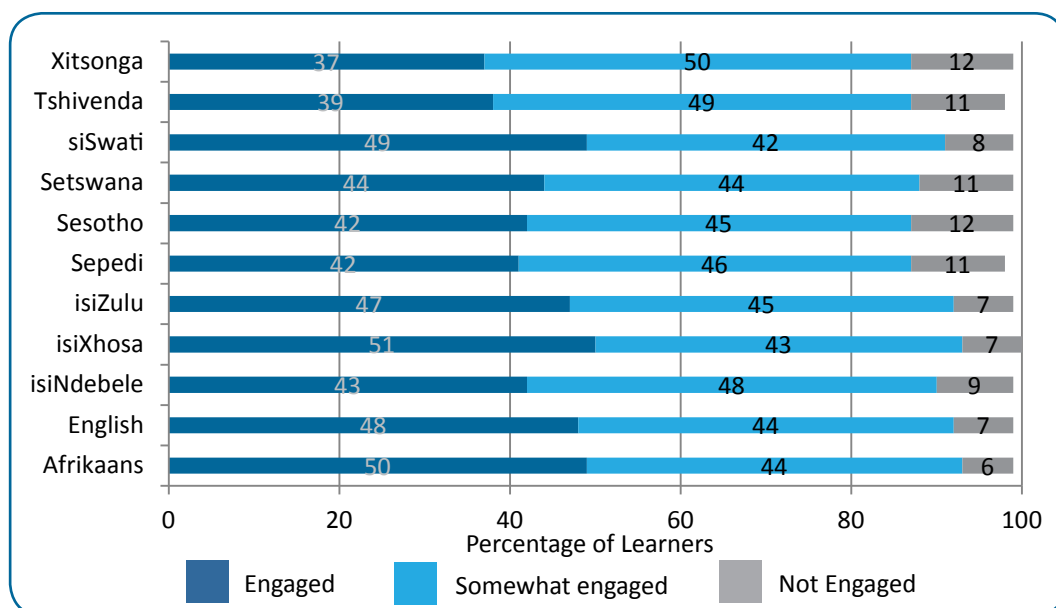


Figure 8.10: prePIRLS 2011 Grade 4 Learner Engagement in Reading Lessons

As indicated by Figure 8.11, learner reading achievement at Grade 4 was higher across all languages when learners are engaged in their reading lessons. While small percentages of learners were classified as not being engaged (at most 13% for Sesotho and Xitsonga learners), it is worth taking note of the negative effect of such a lack of engagement on these learners' reading achievement scores.

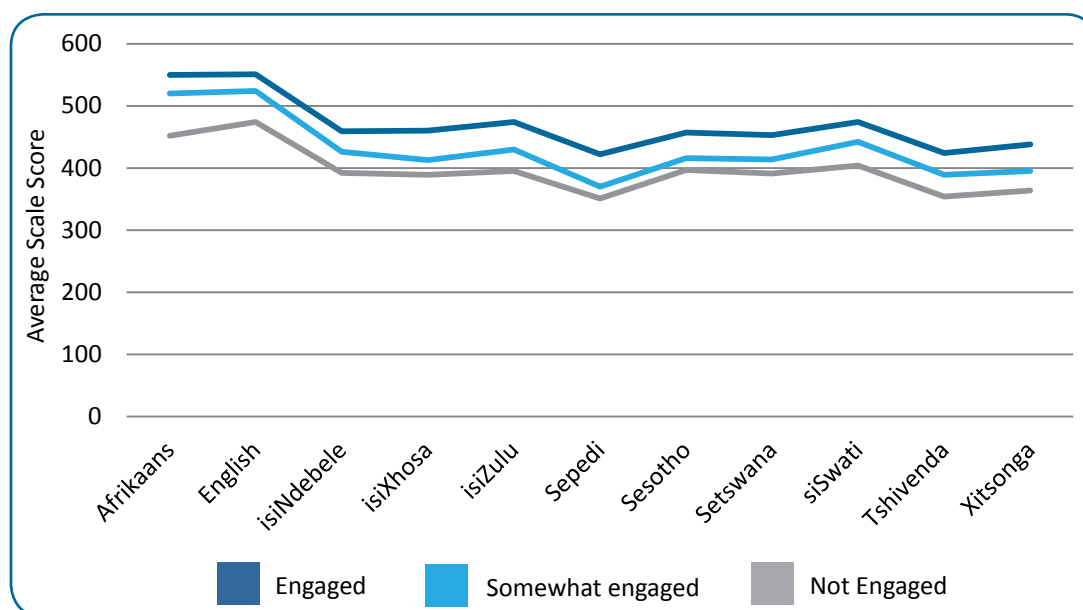


Figure 8.11: prePIRLS 2011 Grade 4 Learner Engagement in Reading Lessons and Achievement

Approximately 45% of the PIRLS Grade 5 learners considered themselves *engaged* in their reading lessons, and 7% *not engaged*. There seems to be a relationship between levels of engagement and achievement with *engaged* learners overall achieving an average of 440 (SE=6.4), and *unengaged* learners achieved the lowest average of 391 (SE=16.8) points. Table 8.1 indicates levels of engagement of the sampled learners tested in English and Afrikaans.

Table 8.1: PIRLS 2011 Grade 5 Learner Engagement in Reading Lessons

|                  | Engaged       |                     | Somewhat engaged |                     | Not engaged   |                     |
|------------------|---------------|---------------------|------------------|---------------------|---------------|---------------------|
|                  | % of learners | Average achievement | % of learners    | Average achievement | % of learners | Average achievement |
| <b>Afrikaans</b> | 54            | 440                 | 40               | 421                 | 5             | 373                 |
| <b>English</b>   | 42            | 440                 | 50               | 416                 | 8             | 395                 |

Consistent with the overall South African profile, the majority of Afrikaans and English learners regard themselves as *engaged* or *somewhat engaged* in their reading lessons, with small percentages of learners not being engaged. Mirroring overall patterns of achievement, higher English and Afrikaans learner achievement in PIRLS 2011 are associated with higher levels of engagement (see Figure 8.12).

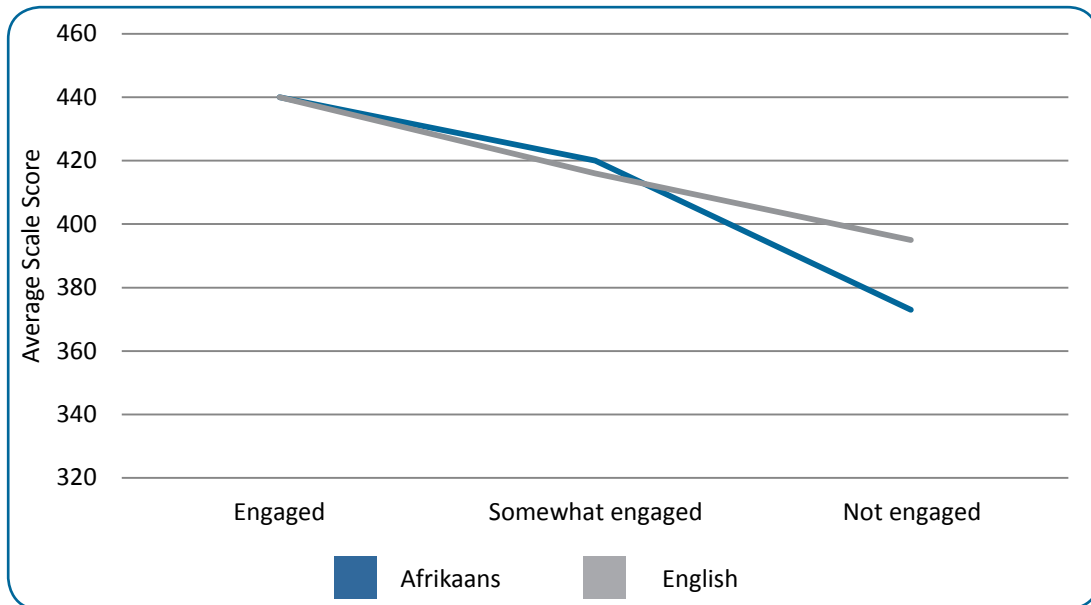


Figure 8.12: PIRLS 2011 Grade 5 Learner Engagement in Class and Achievement

### 8.3.2 Teacher Reports on Learners' Levels of Prerequisite Knowledge and Skills

Learners need prerequisite knowledge and skills to make achievement gains. Internationally, on average, 11% of learners were in classes where the teacher reported that instruction was limited a lot by learners' lack of prerequisite knowledge and skills (Mullis et al., 2012). Approximately a quarter of Grade 4 (26%) South African learners were in classes where the teachers reported this shortfall hampered their instruction *a lot* as well. A further majority of 63% of prePIRLS Grade 4 learners had teachers who reported that their teaching was limited to *some* extent by learners lacking prerequisite knowledge or skills. Figure 8.13 shows a breakdown of teacher reports regarding learners' lack of prerequisite skills and knowledge per language at Grade 4.

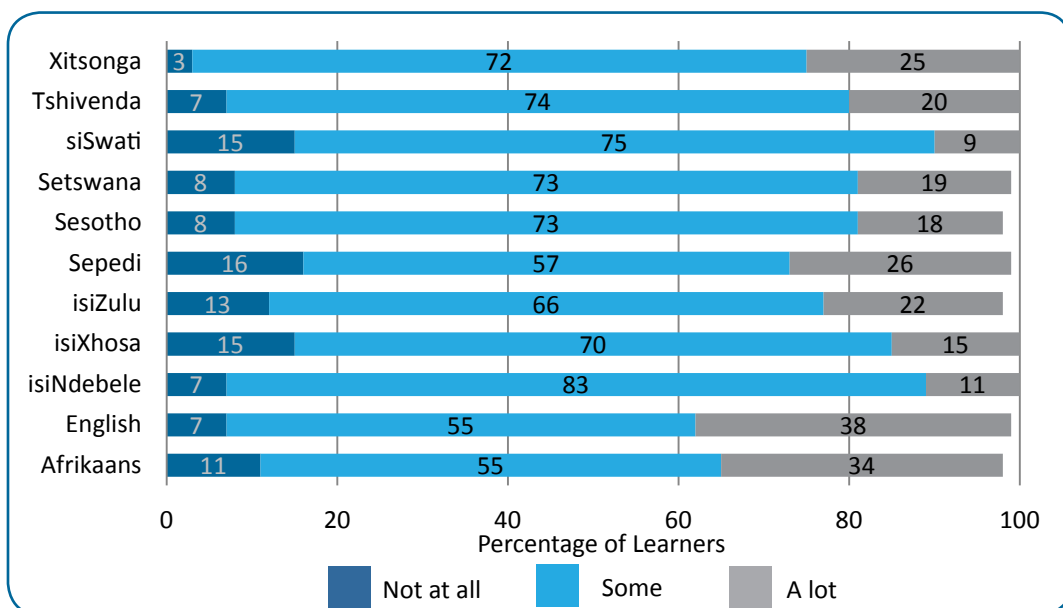
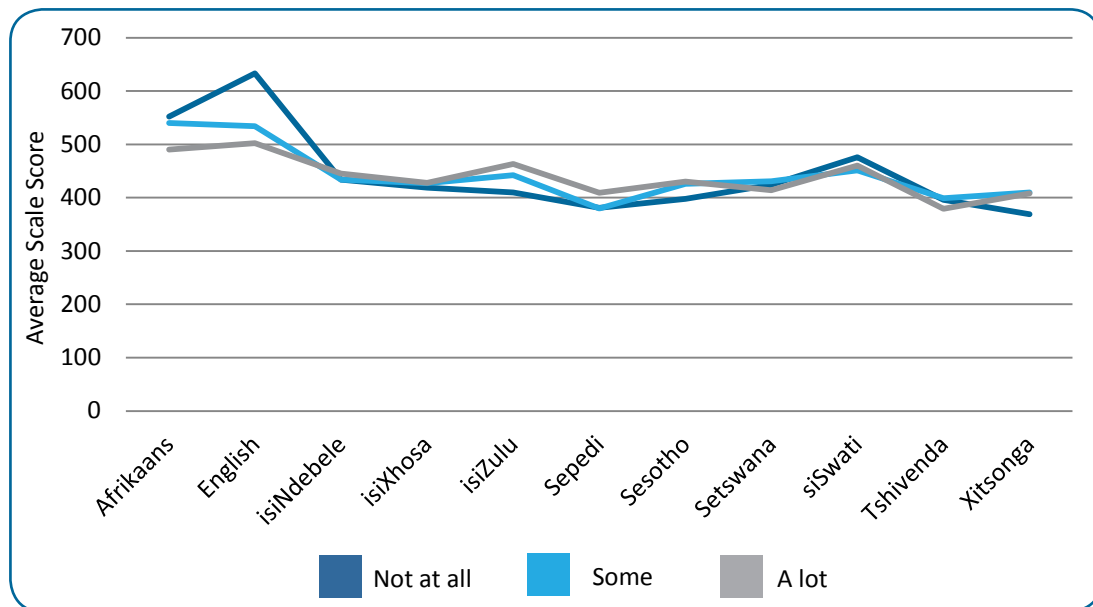


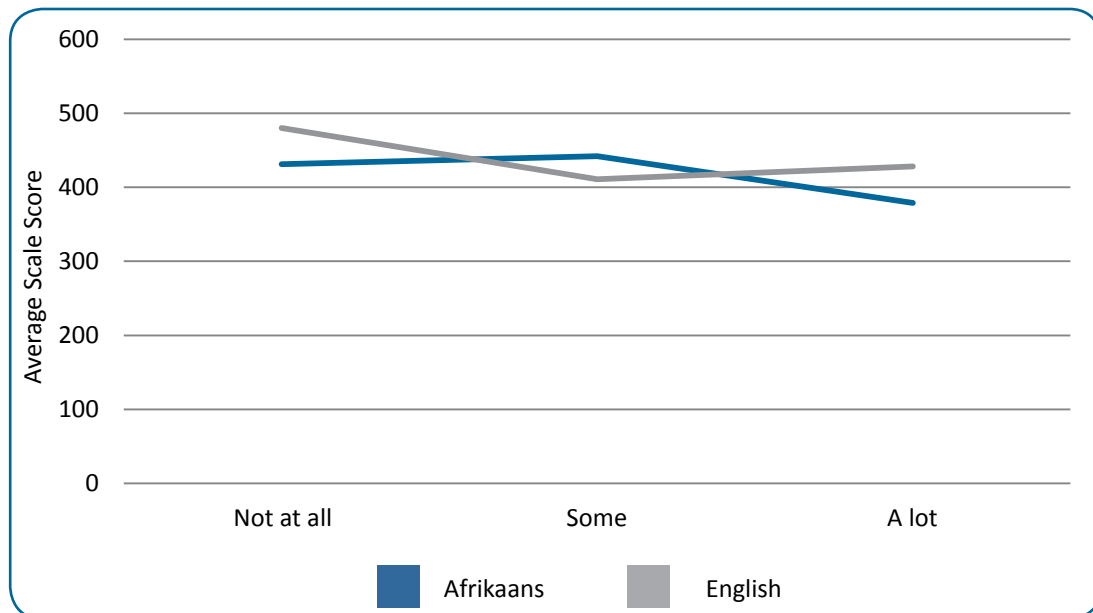
Figure 8.13: prePIRLS 2011 Teacher Reports on Grade 4 Learners Lacking Prerequisite Skills and Knowledge



**Figure 8.14: prePIRLS 2011 Teacher Reports on Grade 4 Learners Lacking Prerequisite Knowledge and Skills and Achievement**

In terms of those learners whose teachers reported that their teaching was limited a lot by learners' lack of required knowledge and skills, it is interesting to note the English and Afrikaans profiles as the highest percentages (38% and 34% respectively) are reported here when compared to the other languages reported. While teachers from African language backgrounds' teaching seem to be less severely affected, as indicated by smaller percentages of learners with teachers reporting that their teaching is affected of which by such lack of knowledge, these teacher reports may be under-reported or reflective of an issue of which teachers are not as explicitly aware in their classrooms. Moreover, it could be that learners are more homogenous in terms of their knowledge and skill profiles in these classes, meaning that teachers do not experience this as an impediment to their teaching practices as instruction needs less differentiation.

This observation is reinforced in the light of reading achievement being higher for isiNdebele, isiXhosa, isiZulu, Sepedi, Sesotho and Xitsonga learners when teachers report their teaching to be severely affected by learners' lack of prerequisite knowledge (see Figure 8.14). The observation is also supported by the very small achievement differences in the African languages as opposed to the English and Afrikaans profiles, which point to greater heterogeneity in terms of learner skills.



**Figure 8.15: PIRLS 2011 Teacher Reports on Grade 5 Learners lacking Prerequisite Knowledge and Achievement**

About 13% of the Grade 5 learners had teachers who reported not being affected at all, with 23% being severely affected. Achievement correlates positively with reports on inadequate prerequisite knowledge to the extent that achievement is 470 points (S.E =24.8) for learners with teachers for whom it is *not* a problem, 419 points (S.E = 9.6) for learners with teachers who report it as *somewhat* problematic, and 413 points (S.E = 15.4) for learners with teachers who are affected by it a lot. Revealing similar response distributions for the two languages in the study, Table 8.2 further outlines teacher reports on the extent of the instructional impact of learners lacking prerequisite knowledge and skills for English and Afrikaans Grade 5 PIRLS learners.

**Table 8.2: PIRLS 2011 Teacher Reports on Grade 5 Learners lacking Prerequisite Knowledge and Achievement**

|                  | Not at all    |                     | Some          |                     | A lot         |                     |
|------------------|---------------|---------------------|---------------|---------------------|---------------|---------------------|
|                  | % of learners | Average achievement | % of learners | Average achievement | % of learners | Average achievement |
| <b>Afrikaans</b> | 11            | 431                 | 61            | 443                 | 28            | 380                 |
| <b>English</b>   | 13            | 480                 | 65            | 411                 | 21            | 429                 |

Learners' lack of prerequisite skills and knowledge seems to be somewhat of a problem for the majority of teachers of Afrikaans and English Grade 5 learners, with approximately two-thirds of teachers for each language respectively indicating so. However, average reading achievement is higher for Afrikaans Grade 5 learners whose teachers their knowledge and skills basis as somewhat of a problem, and higher for English Grade 5 learners whose teachers report it being a serious problem.



## 8.4 Availability of Reading Resources to Teachers in Class

In this section, classroom library or reading corner availability and frequency of use of reading teaching resources are considered.

### 8.4.1 Library and Reading Instruction Materials

In alignment with 72% of learners internationally, 70% of South African Grade 4 learners and 71% of Grade 5 learners had teachers who indicated that they had a library or reading corner in their classrooms. Achievement was higher (471, SE=5.3) for those Grade 4 prePIRLS learners who did have access to a classroom library than for their peers who did not have access (438, SE=6.3). The Grade 5 achievement average was also higher for Grade 5 learners with a classroom library (436, SE=10.1) as opposed to those learners without access (401, SE=16.9). Nevertheless, only 30% of the Grade 4 learners and 29% of the Grade 5 learners whose teachers reported having a classroom library, had access to more than 50 books in this library. Thus, the quality of the provisioning within classroom libraries is still of concern.

### 8.4.2 Availability of Resources to Teachers in Class

For PIRLS 2006, textbooks were the most often used reading instruction materials followed closely by workbooks and worksheets and reading series (Howie et al., 2008). For prePIRLS 2011 in South Africa, the majority of learners had teachers who reported using workbooks or worksheets (63%) or textbooks (60%) as a basis for instruction. Reading series were used as a supplement for instruction for 50% of the learners, and, 64% of the learners reportedly had teachers who used a variety of children's books as a supplement for instruction too. Computer software for reading instruction was not as readily used by teachers, with only 20% of learners reportedly using this as a supplement for instruction. Table 8.3 indicates the most frequently used resources as reported by teachers of Grade 4 learners per language.

**Table 8.3: prePIRLS 2011 Teacher Reports on Resources used to Teach**

|                   | Percentage of Learners whose Teachers use              |                                    |   |  |  |
|-------------------|--|------------------------------------|---|--|--|
|                   | A variety of children's books as basis for instruction | Textbooks as basis for instruction | Reading series as basis for instruction | Workbooks or worksheets as basis for instruction | Computer software as basis for instruction |
| <b>Afrikaans</b>  | 24   | 58                                 | 48                                      | 48   | 7  |
| <b>English</b>    | 22   | 50                                 | 40                                      | 66   | 6  |
| <b>isiNdebele</b> | 17   | 57                                 | 31                                      | 39   | 4  |
| <b>isiXhosa</b>   | 22   | 55                                 | 42                                      | 53   | 8  |
| <b>isiZulu</b>    | 33   | 73                                 | 52                                      | 75   | -  |
| <b>Sepedi</b>     | 19   | 66                                 | 31                                      | 56   | -  |
| <b>Sesotho</b>    | 24   | 70                                 | 43                                      | 77   | 0.8  |
| <b>Setswana</b>   | 25   | 55                                 | 31                                      | 67   | 5  |
| <b>siSwati</b>    | 19   | 57                                 | 45                                      | 60   | -  |
| <b>Tshivenda</b>  | 41   | 66                                 | 52                                      | 66   | 4  |
| <b>Xitsonga</b>   | 10   | 65                                 | 37                                      | 49   | 4  |

Textbooks, workbooks or worksheets are still the most frequently used resource across all languages. Textbook use is specifically pronounced for teachers to Grade 4 learners from IsiZulu (73%), Sepedi (66%), Sesotho (70%), Tshivenda (66%) and Xitsonga (65%) backgrounds. It may be hypothesised that textbooks remain the key reading material resource for classroom use for teachers of learners from these language backgrounds. Thus, developmentally appropriate, stimulating textbook content is crucial to ensure learners' reading literacy progression. Accompanying textbooks as main source of instruction, large percentages of Grade 4 learners also indicated the use of workbooks or worksheets, specifically learners from IsiZulu (75%), Sesotho (77%), Setswana (67%) and Tshivenda (66%) backgrounds. The use of computer software remains poor across all languages, with fewer than 10% of learners having teachers who reported its use as basis for instruction.

Table 8.4 provides information on the types of resources mostly available to teachers of Afrikaans and English Grade 5 learners who participated in PIRLS 2011. For Afrikaans learners, Grade 5 learners textbooks are used as a main source of instruction (54%), with reading series (30%) and workbooks or worksheets (37%) being used to a lesser extent. English Grade 5 learners reportedly textbooks (73%), reading series (39%) and workbooks or worksheets (67%) to a larger extent. Of interest is that 31% of English Grade 5 learners reported the use of a variety of children's books. Fewer than 10% of learners for both languages report ever using computers or computer software.

**Table 8.4: PIRLS 2011 Teacher Reports on Resources used to Teach**

|                  | Percentage of Learners whose Teachers use              |                                    |   |  |  |
|------------------|--|------------------------------------|---|--|--|
|                  | A variety of children's books as basis for instruction | Textbooks as basis for instruction | Reading series as basis for instruction | Workbooks or worksheets as basis for instruction | Computer software as basis for instruction |
| <b>Afrikaans</b> | 14   | 54                                 | 30                                      | 37   | 7  |
| <b>English</b>   | 31   | 73                                 | 39                                      | 67   | 9  |

## 8.5 Conclusions

This chapter summarised selected results from the prePIRLS and PIRLS 2011 data with regards to teachers, their reading instruction, resources and learner attributes which may impact the quality of classroom teaching and learning. A number of new indicators added to the prePIRLS and PIRLS 2011 Questionnaires provided information on teaching issues such as learner engagement in class and lack of prerequisite knowledge.

The participating teachers for both studies had on average 17 years of teaching experience overall. The majority of learners in both Grades 4 and 5 were taught by teachers whose highest level of formal education completed was either post-secondary training, for example, college or a first degree. The very small percentages learners taught by teachers under the age of 30 at both grades is still of concern in terms of the development of strategies to attract and retain young teachers into teaching. Grade 4 learners taught by teachers with a university degree attained the highest mean scores. For Grade 5 learners, those taught by teachers with an honours degree achieved the highest reading achievement.

Teacher reports regarding their career satisfaction revealed their generally positive dispositions towards aspects of their teaching careers with nearly all of the learners having teachers who recognised the importance of their work as teachers.

For both prePIRLS and PIRLS 2011, language instruction does not exceed 5 hours per week. Frequent daily or weekly teaching of most skills and strategies for reading comprehension development is reportedly undertaken by teachers at both focal grades. Key reading skills and strategies reportedly received the most emphasis at Grade 3 level for the majority of Grade 4 and 5 learners. Average achievement was higher for learners who had principals reporting that these strategies received emphasis at or before Grade 2 and lower for those learners in schools where these strategies were emphasised at Grade 4 or later. As such, these skills and strategies should be emphasised for instruction earlier than at Grade 3. Curriculum policy directives should also emphasise the importance of reading comprehension skill and strategy development (Zimmerman, 2010).

Just over a third of learners at both grades had reading homework assigned once or twice a week. Just under another third of learners reportedly had homework assigned every day. As lower achievement patterns are generally aligned to more reading homework assignment this could indicate teachers' acknowledgement of the need for more at home reading practice for struggling learners. As other studies have concluded (Zimmerman, 2010), policy directives should emphasise the importance of assigning frequent reading homework to learners.

The findings have also revealed the importance of learner engagement in reading lessons. Those learners considered to be engaged in reading lessons had the highest achievement in comparison to learners considered somewhat or not engaged. The need to provide a variety of stimulating, developmentally appropriate reading materials aligned to teaching practices that encourage active learning on the part of learners, is paramount in this regard. As shown by higher learner achievement linked to access to classroom libraries, reading material access can contribute to this aspect.

Similar to patterns found for PIRLS 2006, PIRLS 2011 results from teacher reports confirm that textbooks, workbooks and worksheets remain the most utilised sources as basis for instruction in classrooms, with very few learners having teachers who used computers or computer software in their teaching. Monitoring of the quality of textbooks, workbooks and worksheets and ensuring their provision and ongoing replenishment in schools, is essential.

prePIRLS 2011 teacher reports seem to indicate under-reporting of teachers' recognition of learners who lack prerequisite knowledge, specifically those teachers from African language backgrounds. It may be that teachers of these learners do not experience the lack of prerequisite knowledge as a problem yet, or simply do not have adequate skills to recognise, monitor and address lack of prerequisite knowledge when it arises. It could also be reflective of less heterogeneity in the learning profiles of these learners. Teachers need adequate guidelines to help them to ascertain whether or not their learners are progressing at an acceptable pace in terms of curriculum implementation (Zimmerman, 2010).



## CHAPTER 9

# CONCLUSIONS AND REFLECTIONS

The Progress in International Reading Literacy Study 2011 (PIRLS 2011) is an international comparative evaluation of reading literacy of Grade 4 (9 year-old) learners and was conducted in 49 countries with 325 000 learners in 2011. It is one of the largest, most complex and influential assessments of reading literacy internationally, and in South Africa, almost 20 000 learners from 433 schools in Grade 4 (341) and Grade 5 (92) participated. South Africa had also participated in PIRLS 2006, with more than 30 000 learners in more than 400 schools participating in all 11 languages in Grades 4 and 5, representing the largest and most ambitious national contribution to an international comparative study. The last results of PIRLS 2006 were released in 2007, revealing a very low level of achievement in South Africa. At both Grades 4 and 5, the average performance of learners was almost 200 points below the international average of 500 points at both grades.

These low achievement results led directly to a change in the national design for PIRLS 2011. At the Grade 4 level, a decision was made to assess the learners with an easier assessment, called prePIRLS, designed by the International Study Centre with the assistance of the national centres. Processes similar to those of PIRLS were followed in the design and development of prePIRLS, but designed as a shorter, easier test and at a lower cognitive level than that of PIRLS 2011. This prePIRLS 2011 represented a new baseline measure for South Africa for Grade 4 and was administered in all 11 languages. The African language groups were not assessed at Grade 5 level due to the very low levels of performance in PIRLS 2006 and the difficulty found in accurately measuring trends in those nine languages. Therefore, trend data was only reported for learners tested in Afrikaans or English at the Grade 5 level in PIRLS 2011.

PIRLS 2006 and PIRLS 2011 were both undertaken by the Centre for Evaluation and Assessment (CEA) at the University of Pretoria, which served as the National Research Centre. These studies were conducted under the auspices of the International Association for the Evaluation of Educational Achievement (IEA) that was responsible for the overall research design, encompassing the reading curriculum framework and the research questions. Very specific and high standards were instituted to guide the sampling process, quality assurance of the translation phase, the contextualisation of items and the data collection phase. The data cleaning and data analysis took place within both the National Research Centre (CEA) and at the IEA's International Data Processing Centre. The outcomes of all the quality assurance processes indicate that the data and the processes involved in the conduct of the study were both valid and reliable.

Whilst this report is only a summary of the main national report, to be released in 2013, it focuses primarily on significant factors linked internationally to the achievement of South African Grades 4 and 5 learners. This report presents only the first descriptive analysis of the PIRLS 2011 data which is still being analysed by the PIRLS 2011 team and will culminate in the main report, policy briefs and a number of postgraduate studies at master's and doctoral levels. In this report, the key findings are summarised, followed by some initial reflections and implications.

## 9.1 Key Findings

Internationally, out of 45 countries assessing Grade 4 learners, the top performing countries were Hong Kong SAR, the Russian Federation, Finland and Singapore. In particular, Hong Kong SAR and Singapore had used earlier results of PIRLS 2001 and PIRLS 2006 to implement systemic reforms in the reading curriculum, instructional materials and teacher education, as had the Russian Federation (the top performing country for PIRLS 2006) following structural changes. Furthermore, 10 countries had raised their levels of reading achievement between 2001 and 2011. Girls continued to outperform boys internationally.

Ninety-five percent of learners internationally have been educated to reach a basic level of reading (called the Low International benchmark). Some countries succeeded in reaching this benchmark universally or almost universally, such as the Netherlands with 100% of its learners reaching this benchmark and 99% of learners from the Russian Federation, Finland, Hong Kong SAR, Denmark and Croatia doing so. Impressively, almost one-fifth of learners from Singapore reached the highest level of achievement, the Advanced International benchmark.

In South Africa, the following conclusions were drawn:

### 9.1.1 Learner Achievement

#### Grade 4 prePIRLS

- Grade 4 learners, particularly those tested in African languages, achieved well below the International Centre point despite writing an easier assessment. They were still performing at a low level overall on an easier assessment than were their counterparts internationally. However, learners achieved scores similar to their Batswana neighbours.
- There is a significant gender gap in achievement, with Grade 4 girls outperforming boys overall.
- Learners tested in Afrikaans or English performed relatively well and above the International Centre point. However, those tested in all African languages, despite most writing in their home language, achieved very low scores with none reaching the International Centre point. Learners tested in Sepedi and Tshivenda had average scores more than 100 points below the International Centre point of 500 points and represented the poorest performing African language groups for purposes of the prePIRLS 2011 study.
- Most learners (71%) were able to reach a rudimentary level of reading and attain the Lowest International benchmark. However, few (6%) were able to read at an advanced level. Of concern is that more than half of the learners tested in Sepedi and Tshivenda could not read at a fundamental level and failed to reach even the Low International benchmark. This failure points to an inability to locate and retrieve explicitly stated detail when reading literary texts. When reading informational texts, not reaching the Low International benchmark also implies an inability to locate and reproduce two or three pieces of information from within the text, and to use subheadings, text boxes and illustrations to locate parts of the text when reading informational texts.

## Grade 5 PIRLS

- There is no significant difference in the overall achievement for learners in 2011 compared to 2006.
- Grade 5 learners tested in Afrikaans or English were still performing below the International Centre point of 500 fixed for the reading literacy of Grade 4 learners internationally, by approximately 80 points. However, 58% of the learners did not write in their home language.
- Achievements of Grade 5 learners (tested in Afrikaans or English) were on a similar level to Grade 4 learners in Saudi Arabia, Indonesia, Qatar and Botswana (Grade 6), and well above Grade 4 learners in Oman and Morocco, bearing in mind these countries' samples tested their populations whereas South Africa only tested part of its population.
- There is a significant gender gap in achievement, with Grade 5 girls outperforming boys overall.
- Forty-three percent of learners tested in Afrikaans and English were unable to reach the Lowest International benchmark and only 4% could reach the Advanced International benchmark, compared to 8% internationally.
- More learners tested in Afrikaans were able to attain the Lowest International benchmark than those writing in English.

### 9.1.2 Learners and the Home Environment

- South African households have on average fewer resources than do many countries in PIRLS 2011. However, they have considerably more than the poorest countries in the study, albeit South African learners do not attain the same achievement levels.
- PrePIRLS 2011 results reveal that most children were speaking the language of the test before they went to school and this did not seem to affect their achievement, with the exception of those who wrote in Afrikaans, English and isiXhosa at Grade 4 level. However, PIRLS 2011 results at Grade 5 level show that nearly half of the children did not speak the language of the test before school, also resulting in a significant difference in achievement.
- Grades 4 and 5 learners who liked reading, were motivated to read and were confident readers, achieving higher scores.
- Children of parents who liked reading achieved on average higher scores than those whose parents did not.
- South African parents have exceptionally high aspirations for their children's education levels. A much higher proportion of South African aspire to their children undertaking postgraduate education than the international average, which is already considered high.

### 9.1.3 Classroom and Teacher Factors

- Most Grades 4 and 5 teachers are quite experienced with on average 17 years of teaching experience. Almost all teachers regarded their work as important, although half reported being more enthusiastic about teaching at the onset of their career.

- The majority of teachers of Grade 4 and 5 learners held formal qualifications in Education, namely post-secondary college or university degrees and specifically Foundation Phase teaching. Almost a third of teachers reportedly spent less than six hours in in-service training that dealt with reading and teaching reading, specifically in the past year.
- The average prePIRLS 2011 class size is 40. Large average class sizes (>40) are found for learners who are taught in African languages, with only Afrikaans and English classes below the national average of 40.
- No relationship was found between instructional time and achievement in reading, possibly indicating a lack of effective teaching and learning. There is considerable variation across languages in terms of time on task for language and reading.
- Teacher spent most of their instructional time on basic reading skills and strategies and less time on more inferential types of skills.
- Teaching of more complex reading skills (such as making generalisations, describing text style and structure, and determining the author's perspective) is introduced at a much later stage for South African learners than internationally, especially for learners tested in Xitsonga and isiNdebele. Learners exposed at an earlier grade tended to achieve higher scores in reading.
- Reading homework was assigned to only one-third of the learners in Grade 4 on a daily basis and to Grade 5 learners weekly.
- Learners engaged in reading achieved higher scores.
- Learners lack of prerequisite skills and knowledge negatively affects instruction to some extent in most schools and particularly in schools where Afrikaans and English were tested.
- There are still problems with the provision of textbooks and learning materials and teachers reported being hampered by lack of resources.
- About 30% of learners are in classrooms with no classroom library or reading corner and a further 40% are in classes where there are very few books in the existing classroom library.
- With some exceptions, textbooks remain the dominant resource for both Grade 4 and Grade 5 teachers and few teachers use a variety of children's books as a basis for instruction.

#### 9.1.4 School Factors

- Almost half of the Grade 4 learners in the prePIRLS 2011 sample attended schools in remote rural areas and achieved more than 100 points fewer than their urban peers.
- More than half of the learners in the Grade 4 sample were in schools with no school library, and achieved on average 155 points fewer than those schools which that did have well resourced libraries.
- More than half of the learners in Grade 4 experienced being bullied weekly, which was substantially higher than all of the other countries in the study. These children on average tended to achieve more than 50 points fewer than learners who were not bullied as often. Children who were frequently bullied tended to be in rural or township environments, in large classes and from low socio-economic home backgrounds.
- One in five learners attended a school in which the inadequacy of the resources was reported by teachers and principals as hampering teaching and learning. However, there were countries



performing better in which significantly more learners (almost four out of five) were negatively affected.

- Learners in schools in which a very *high emphasis* was placed on academic expectations by the principals and teachers achieved much higher scores than those in schools in which expectations were lower.
- Learners in schools in which teaching and learning was negatively affected by shortages of reading resources achieved more than 100 points fewer than those that were not.
- Almost half of the learners were in schools in which there were *moderate* problems with teachers' working conditions. Learners in schools whose teachers had *hardly any* problems with their conditions achieved between 60-95 points more than those learners whose teachers had *moderate* problems.

## 9.2 Initial Reflections and Implications Arising

In this summary, a brief reflection is presented in terms of the main findings and their implications.

The curriculum and the language and reading policies that are in place form the background against which educational provision is shaped. It is interesting to study the South African curriculum and the language policies in light of the prePIRLS and PIRLS 2011 results. The intended curriculum (summarised in Chapter 2) reflects very closely the reading skills and strategies that are drawn from the PIRLS framework. There is, therefore, a direct alignment of the purposes of the PIRLS assessment and the assessment standards reflected in the *Revised National Curriculum Statement* in place at the time of the testing for prePIRLS and PIRLS 2011, suggesting that what should be attained at the Grades 4 and 5 levels is in fact assessed directly by the PIRLS assessment. If the reading instruction had been in line with curriculum standards, one could have expected the achievement to be much higher. Furthermore, the majority of learners in Grade 4 were assessed in their home language, so although the language, of instruction can negatively influence learner performance in a second language this does not apply for the majority of these learners. Although more than half of the learners in Grade 5 were largely tested in their second language, they achieved below the international centre point. Nevertheless, they performed relatively well compared to some other countries, suggesting that the schools in which they were tested had somehow managed to compensate in part for any language disadvantage by this stage of their education.

The contextual factors, namely the home, classroom and school, as well as the individual learner characteristics are evident in the design of the PIRLS studies, enabling the monitoring of the effects of different variables on reading. PIRLS studies are useful to monitor trends in reading, although in the absence of a baseline study, they cannot be linked directly to initiatives implemented between studies.

The international and national experience show that learners from educationally advantaged homes with more literary resources achieve higher reading scores than their less well-resourced peers, and the South African PIRLS 2011 data confirms this. This again highlights the important role of the school in compensating for minimal home opportunities offered to children from low socio-economic backgrounds. A strong link was found between reading achievement and home environments for almost every country in the PIRLS 2011 study. Factors, such as high parental regard for reading impact on learner results, as do children's enjoyment, confidence and motivation.

Factors relating to learners in South African classrooms and schools, most notably the lack of or shortage of resources, existence of a school library, good working conditions for teachers, an orderly and safe environment, and low levels of bullying, appear to be significant factors in the 2011 study that are positively associated with learner achievement. Schools that report the shortages of resources, a lack of infrastructure, and unsafe or disorderly environment are those in which learners are achieving least in reading. The fact that the majority of learners who participated in PIRLS came from disadvantaged homes, that the principals reported that inadequate resources which hamper instruction, and that there was no school or classroom library at more than half of the schools, all impacted on performance. South Africa had one of the lowest levels of library provision amongst all the countries participating, including systems which are economically more impoverished. Therefore, coupled with a dearth of public libraries in both township and rural areas, children and their teachers lack access to the resource base that is taken for granted in many countries. This lack of access both in the public environment and in public schools will inevitably widen the gap of reading achievement, first clearly visible in primary schools in South Africa in 2006 and again in 2011, unless addressed.

The urbanisation of South African society may be contributed to by parents sending their children to urban and suburban schools, which are achieving much higher scores than those in rural areas.

One serious matter of concern is that whilst there appear to be some movement and improvement in the Grade 5 data amongst the lowest achieving learners, and more children are able to attain the international benchmarks, in particular the Low International benchmark, there has been a drop in the percentage of female learners attaining the high and advanced levels of reading achievement. Whilst the agenda for attaining equity in schools is paramount, South Africa needs to ensure that its pockets of excellence (which are currently fewer than 10%) are maintained and further supported if they are to achieve even higher performance levels. Currently, sites of excellence are under strain in the public system, with increasing pressure to increase their class sizes, increasing diversity of learners' background, and abilities within classes and with stretched resources. With data revealing some possible risk of decreasing performance at the top end, this has to be addressed urgently.

South African learners' performance in the PIRLS assessments reinforces the need for reading instruction practices that address the difficulties in language and reading in both the Foundation and Intermediate Phases. Unless children are fully functional in the language of teaching and learning, they are at considerable risk of failure or repeated failure in primary school, and of dropping out of school at secondary level. Therefore, the continued and close monitoring of reading literacy in all the languages in which it is offered, as well as the teachers' competence to provide a high quality reading instruction, is critical for the successful development of all individuals in the schooling and training systems. There is a need to interrogate the quality of reading instruction in schools whilst attending to the Language in Education Policy (DoE, 1997) and its impact on learners' reading.

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# APPENDIX A

## NATIONAL STEERING COMMITTEE

| Names                | Institution  |
|----------------------|--|
| Carole Bloch         | PRAESA, University of Cape Town                                      |
| Masennya Dikotla     | The Molteno Project  |
| Cilla Dowse          | CEA, University of Pretoria  |
| Ana Ferreira         | Wits School of Education   |
| Paula Gains          | The Molteno Project  |
| Xolisa Guzula        | PRAESA, University of Cape Town                                      |
| Sarah Howie          | Chair, National Research Coordinator,<br>CEA, University of Pretoria |
| Janet Marx           | ZENEX  |
| Bertus Matthee       | READ   |
| Jerry Mojalefa       | Department of African Languages, University of<br>Pretoria           |
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| Margie Probyn        | University of the Western Cape                                       |
| Molefe Ralenala      | Limpopo Department of Education                                      |
| Jennifer Rault-Smith | Education Consultant   |
| Mishack Tshele       | CEA, University of Pretoria  |
| Surette Van Staden   | Co-National Research Coordinator,<br>CEA, University of Pretoria     |
| Brian Wafawarowa     | Publishers' Association of South Africa                              |
| Evans Zwane          | Mpumalanga Department of Education                                   |
| Lisa Zimmerman       | CEA, University of Pretoria  |

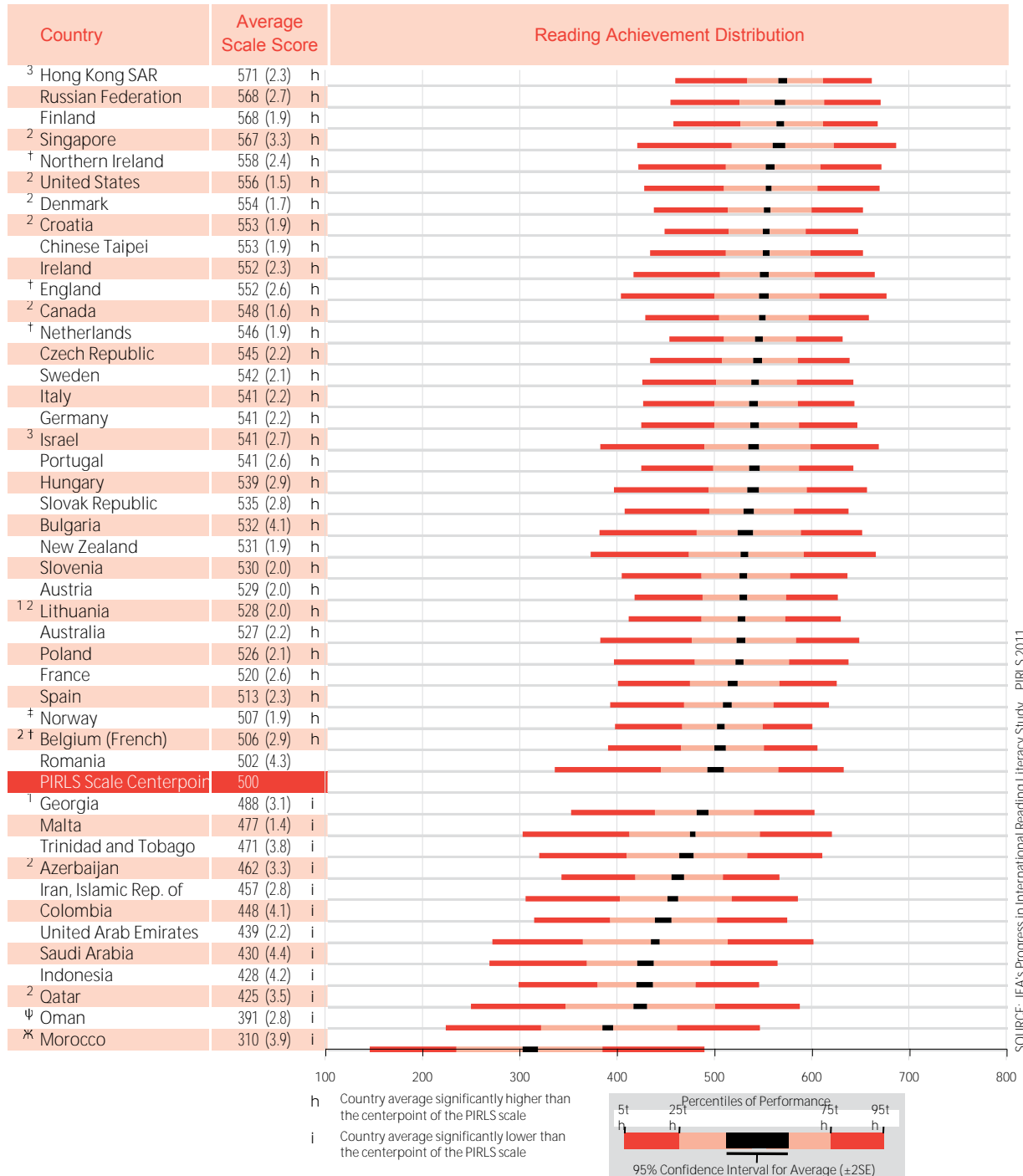
# APPENDIX B

## EXHIBIT 1.1 AND 1.2 FROM PIRLS 2011

### INTERNATIONAL RESULTS IN READING REPORT

Exhibit 1.1: Distribution of Reading Achievement

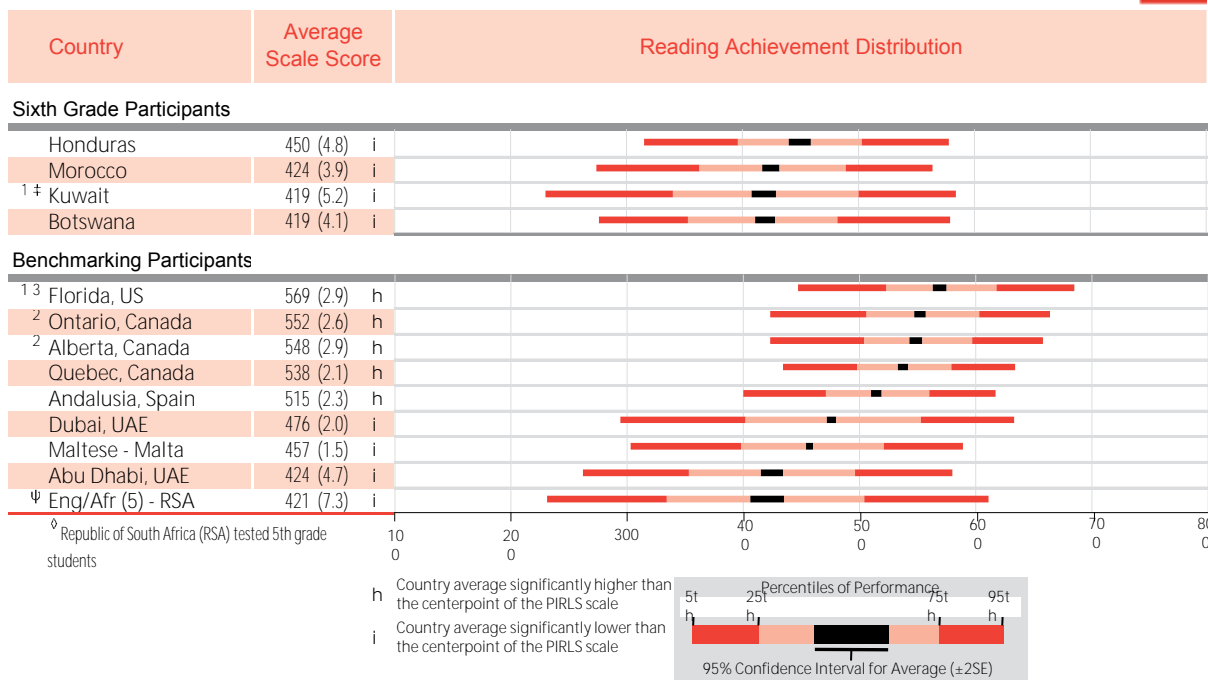
PIRLS 2011 **4<sup>th</sup>**  
Grade



SOURCE: IEA's Progress in International Reading Literacy Study - PIRLS 2011

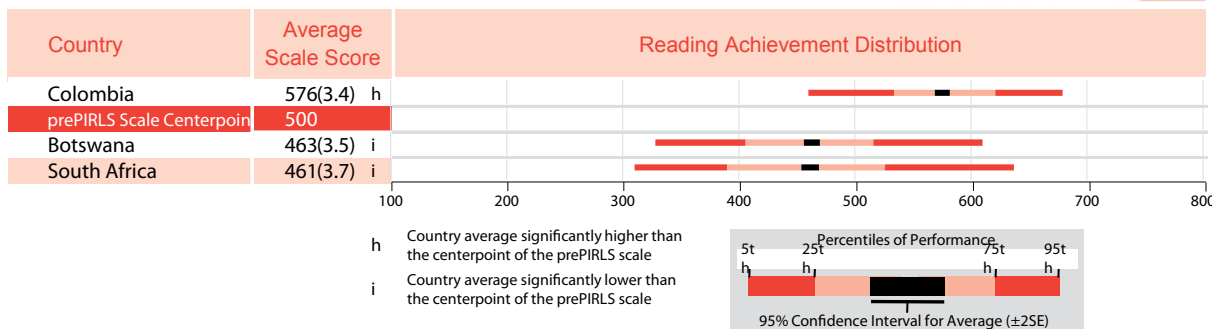
✱ Average achievement not reliably measured because the percentage of students with achievement too low for estimation exceeds 25%.  
 ψ Reservations about reliability of average achievement because the percentage of students with achievement too low for estimation does not exceed 25% but  
 See Appendix C.2 for target population coverage notes 1, 2, and 3. See Appendix C.5 for sampling guidelines and sampling participation notes † and ‡.  
 ( ) Standard errors appear in parentheses. Because of rounding some results may appear inconsistent.

Exhibit 1.1: Distribution of Reading Achievement (Continued)



SOURCE: IEA's Progress in International Reading Literacy Study - PIRLS 2011

Exhibit 1.2: Distribution of Reading Achievement



( ) Standard errors appear in parentheses. Because of rounding some results may appear inconsistent.

: IEA's Progress in International Reading Literacy Study - PIRLS











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