

Howie, S.J., Combrinck, C., Roux, K., Tshele, M., Mokoena, G.M., and McLeod Palane, N.

## What is PIRLS?

The *Progress in International Reading Literacy Study* (PIRLS) assesses reading comprehension and monitors trends in reading literacy at **five-year intervals**. PIRLS has assessed fourth year reading comprehension in over **60 countries** since 2001 and set international benchmarks for reading comprehension. To monitor **learner reading and comprehension**, PIRLS assessments offer the **opportunity to track progress** in reading comprehension within and across **languages** as well as in **provinces**. The PIRLS international scale has a range that is set from 0 to 1 000, a centre point of 500 and a Standard Deviation of 100 (reading literacy achievement scale).

## Participation in PIRLS cycles

**2006:** Grade 4 and Grade 5 learners were assessed in all 11 languages. In Grade 4, a total of 16 073 learners were assessed and in Grade 5, 14 657 learners. The sample was nationally representative and stratified by language and by province.

**2011:** Grade 4 learners were assessed in all 11 languages using prePIRLS (now known as PIRLS Literacy). Grade 5 learners in English and Afrikaans schools wrote the PIRLS assessment. 15 744 Grade 4 learners participated and 3 515 Grade 5 learners. The sample was nationally representative but was only stratified by language.

**2016:** Grade 4 learners were assessed using PIRLS Literacy passages, new passages translated into 10 official languages. The PIRLS Literacy Study also included PIRLS passages. Grade 5 learners wrote PIRLS and were assessed in Afrikaans, English and isiZulu schools which included PIRLS Literacy passages. 12 810 Grade 4 learners were assessed and a total of 5 282 Grade 5 learners. The sample was nationally representative and stratified by language and by province.

## PIRLS Literacy Objectives

- To assess how well South African Grade 4 learners read **and to identify possible associated contextual factors**.
- To compare the reading literacy of Grade 4 South African learners both **internationally** and on a **national** level for all 11 languages and nine provinces.



## Achievement Assessments

Each child completes an assessment booklet. Each booklet has 2 passages:

- Literary (fiction) passage
- Informational (non-fiction) passage

Passages were translated into 10 languages. The international versions in US English were changed to UK English and the English passages were also contextualised for South Africa. Each passage is followed by about 13-15 questions. There are 12 passages used per study (PIRLS and PIRLS Literacy), and the passages are spread across 16 different booklets in a Rotated Test Design. Children seated next to one another answer different booklets.

Learners are tested in the language of learning and teaching (LoLT) used in Grade 1-3 in their school. Main data collection for Southern Hemisphere countries took place at the end of 2015.

## Two types of PIRLS Achievement Assessments

1. **PIRLS:** passages and items which assess reading literacy at the international fourth year level.
2. **PIRLS Literacy:** passages and items which assess reading literacy at the lower end of the reading comprehension scale (easier passages and items).

## Questionnaires (Contextual)

There were five questionnaires:

- Learning to Read Survey* (parent/guardian/home)
- School Questionnaire* (principal)
- Teacher Questionnaire* (classroom)
- Learner Questionnaire* (student)
- Curriculum Questionnaire* (national)



## Grade 4 PIRLS Literacy Attained Sample

A total of **12 810** Grade 4 learners in **293 Schools** were assessed. The learners were representative of the 11 official Languages and nine Provinces. South Africa's participation rate was **94%** (after replacements). The PIRLS samples are drawn to be representative of the population. The percentages of learners are reported based on the total weighted percentage (for example, 13% of learners wrote the assessment in Gauteng, but they represent 17% of the Grade 4 population in that province). Below in Table 1 the spread of languages are shown.

Table 1: Grade 4 test languages

Language	% of population
English	23,0%
isiZulu	21,8%
isiXhosa	15,9%
Sepedi	9,3%
Afrikaans	9,2%
Setswana	7,1%
Sesotho	5,2%
Xitsonga	3,8%
siSwati	2,3%
Tshivenda	2,2%
isiNdebele	0,3%

**English (23%), isiZulu (22%) and isiXhosa (16%)** are the three largest language groups represented in the sample.

Figure 1 shows the percentage from each province represented in the sample.

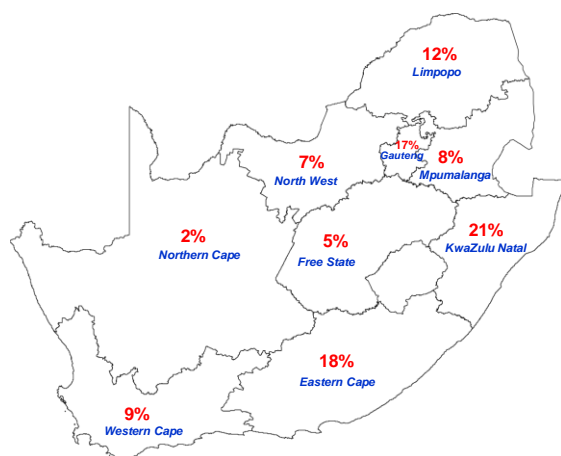


Figure 1: Grade 4 Provincial samples

The largest percentage of learners represented **Kwazulu Natal (21%)**, **Eastern Cape (18%)** followed by **Gauteng (17%)**.

## Grade 4 Achievement in PIRLS Literacy 2016

South African results are shown in Figure 2, as compared to those that wrote the PIRLS Literacy assessment in the study (see Appendix A for achievement of all countries).

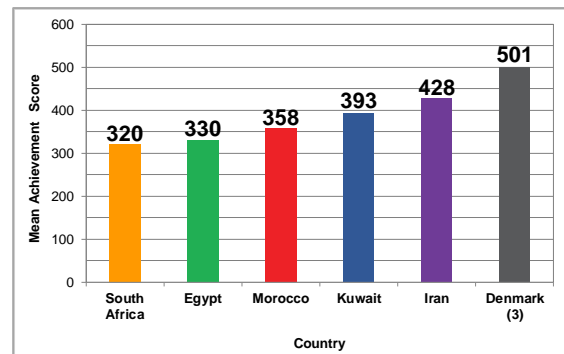


Figure 2: South African Grade 4 achievement compared to the PIRLS Literacy countries

South Africa was **placed last out of all 50 countries** who participated in PIRLS 2016. South Africa's performance was similar to that of Egypt (not statistically different).

The Russian Federation (highest performing country) (not shown), achieved approximately **260 points more** than South Africa. South Africa at 320 score points is **significantly below** the PIRLS centre point of 500.

## Grade 4 Performance Languages

As can be seen in Figure 3, the highest performing test languages were **English (372)** and **Afrikaans (369)**.

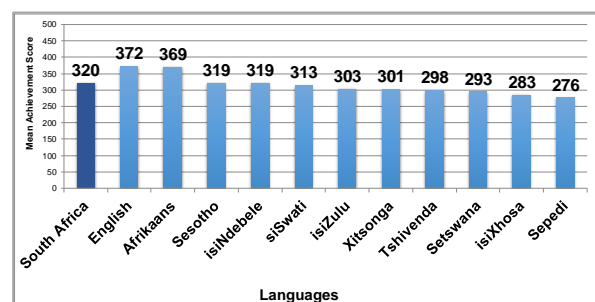


Figure 3: Grade 4 PIRLS Literacy achievement by language of test

The lowest performing languages were **isiXhosa (283)** and **Sepedi (276)**. The learners writing in English and Afrikaans **achieved significantly higher scores** than the African languages which do not differ statistically from one another.

## Grade 4 Performance in Nine Provinces

The highest achieving province was **Western Cape (377)** and the lowest performing province was **Limpopo (285)**, as shown below in Figure 4.

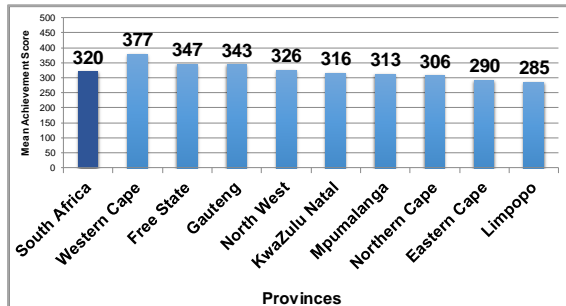


Figure 4: Grade 4 PIRLS Literacy achievement by province

A difference of almost 100 points was found between the two provinces. Both the **Eastern Cape and Limpopo** achieved mean scores **below 300 points**.

There was **no significant difference** between the **Western Cape** and **Gauteng's** performance. Compared to provinces other than Gauteng, the Western Cape had a significantly higher mean achievement.

## Grade 4 Performance by Gender

At **347 score points**, girls achieved 52 score points higher than **boys (295)**, which was statistically significant. Across all languages, girls consistently performed better than the boys.

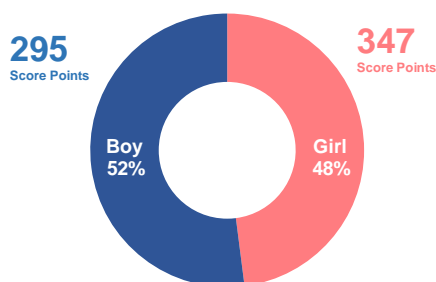


Figure 5: Grade 4 PIRLS Literacy achievement by gender

South Africa has the **second largest achievement gap (52 points)** internationally between boys and girls, other than Saudi Arabia (where girls scored more by 65 points).

## Grade 4 Performance by School Location

The mean achievement scores are shown per school location in Figure 6.

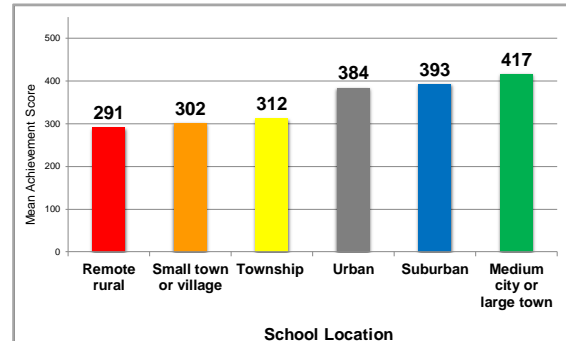


Figure 6: Grade 4 PIRLS Literacy achievement by school location

Remote rural settings achieved **significantly below (291)** the learners attending schools in densely populated urban and suburban areas who achieved between **384 - 393 points**. Learners in **township areas** also tended to achieve low scores (**312**), only 21 points higher than learners in remote areas and more than 100 points below the highest performing group.

## Grade 4 Performance if Learner spoke Language of Test at Home

In Figure 7 the frequency of speaking the test language at home is shown as well as the associated scores.

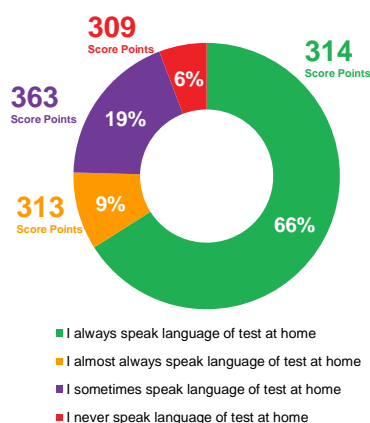


Figure 7: Frequency of speaking test language at home

Only 6% of learners said they never speak the language of the test at home. There is **no clear, linear association** between the frequency of speaking the language of the test at home and achievement.

Table 2 below is the percentage of learners who said they speak the language of the test at home and their mean reading literacy achievement score.

Table 2: Percentage of Grade 4 learners who speak the language of the test at home and mean achievement

Language	Speak at home %	Mean
<b>English</b>	<b>21%</b>	<b>445</b>
Afrikaans	89%	372
Sesotho	83%	322
isiNdebele	75%	319
siSwati	83%	315
isiZulu	86%	305
Tshivenda	87%	304
Xitsonga	80%	302
Setswana	75%	295
isiXhosa	91%	285
Sepedi	82%	275

In the majority of the languages most of the learners (**75% to 91%**) spoke the language of the test at home, as is shown in Table 2.

However, **English is the opposite** of the other languages. Of the Grade 4 learners who wrote the test in English, **only 21%** speak the language at home. In most of the languages, learners achieved higher reading literacy scores if they wrote in their home language, but the difference was only significant for two languages: **English and Tshivenda**.

In Figure 8, the difference in achievement is shown.

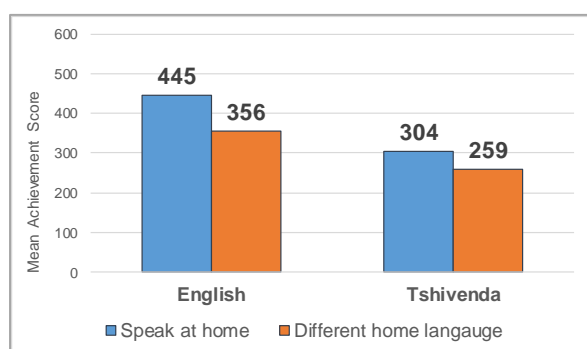


Figure 8: Grade 4 PIRLS Literacy achievement for English and Tshivenda to compare spoken language at home to speak a different language

Learners who wrote the test in English and spoke the language at home, had a score of **445** which was **significantly higher** than those who spoke a different language at home (**356**).

In Tshivenda, the **87%** who spoke the language at home had a significantly higher mean score (**304**) than those who did not speak it (**259**).

## PIRLS International Benchmarks

Four international benchmarks provide information about what children can do at certain score point ranges.

- **Those learners that did not reach the lowest benchmark (below 400 points):** cannot read for meaning or retrieve basic information from the text to answer simplistic questions
- **Low International Benchmark (400 - 474):** can read to locate and retrieve explicit information
- **Intermediate Benchmark (475 - 549):** begin to interpret and identify obvious reasons events in text as well as giving basic explanations for actions or information
- **High International Benchmark (550 - 625):** make intricate connections between events in the text. Identify crucial features and make generalisations. Interpret complex text and tables
- **Advanced International Benchmark (625 and above score points):** integrate ideas as well as evidence across a text to appreciate overall themes, understand the author's stance and interpret significant events

## Grade 4 Benchmark Attainment

**78% of South African Grade 4 children were not able to reach** the lowest benchmark compared to **4%** internationally. In Figure 9, the attainment of benchmarks for South Africa is shown in comparison to the international median.

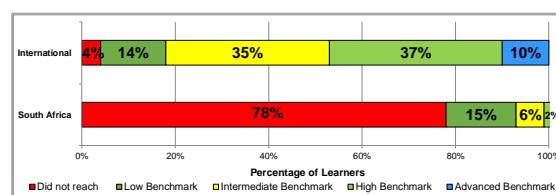


Figure 9: Grade 4 benchmark attainment compared to international

Learners who did not reach the lowest benchmark could not locate explicit information or reproduce information from a text at the end of Grade 4. A total of **0.2%** of South African learners did attain the **Advanced Benchmark** (too small to represent on the graph) compared to 10% internationally.

## Benchmarks by Test Languages

More than 80% of learners who wrote in one of the nine African languages **did not reach** the Low Benchmark, as can be seen in Table 3.

Table 3: Did not reach and in the Low Benchmark category by test language

	Did not Reach	Low Benchmark
<b>Sepedi</b>	<b>93%</b>	<b>7%</b>
<b>Setswana</b>	<b>90%</b>	<b>10%</b>
Tshivenda	89%	11%
isiXhosa	88%	12%
Xitsonga	88%	12%
isiZulu	87%	13%
isiNdebele	87%	13%
siSwati	84%	16%
Sesotho	82%	18%
<b>English</b>	<b>57%</b>	<b>43%</b>
<b>Afrikaans</b>	<b>56%</b>	<b>44%</b>

The disparity between those who wrote in an African language is very large compared to learners who wrote in English or Afrikaans. More than **half the learners** who completed the assessment in English (57%) or Afrikaans (56%) were unable to attain the Lowest Benchmark.

## Benchmarks reached per Province

In every province, **more than 50%** of children were unable to reach the Lowest Benchmark and lack basic literacy skills by the end of Grade 4. Table 4 shows the benchmark attainment per province.

Table 4: Grade 4 Benchmark attainment by province

	Did Not Reach	Low Benchmark	Intermediate Benchmark	High Benchmark	Advanced Benchmark
<b>Limpopo</b>	<b>90,8%</b>	<b>9,2%</b>	<b>1,0%</b>	<b>0,1%</b>	<b>0,0%</b>
Eastern Cape	84,6%	15,4%	4,6%	0,8%	0,1%
Mpumalanga	82,9%	17,1%	4,4%	0,7%	0,1%
KwaZulu Natal	81,6%	18,4%	3,9%	0,7%	0,1%
Northern Cape	80,6%	19,4%	6,5%	0,9%	0,1%
North West	78,3%	21,7%	7,3%	1,9%	0,0%
Free State	73,4%	26,6%	8,7%	2,0%	0,1%
<b>Gauteng</b>	<b>68,5%</b>	<b>31,5%</b>	<b>14,7%</b>	<b>4,7%</b>	<b>0,7%</b>
<b>Western Cape</b>	<b>55,0%</b>	<b>45,0%</b>	<b>19,0%</b>	<b>5,2%</b>	<b>0,6%</b>
<b>South Africa</b>	<b>77,9%</b>	<b>22,1%</b>	<b>7,5%</b>	<b>1,9%</b>	<b>0,2%</b>

NOTE: The table should be read as follows: Don't not reach together with Low benchmark represent the 100% of learners for each province. Learners reaching Intermediate, High and Advanced benchmark are included in the figure of Low benchmark as in order to reach the higher benchmarks, the Low benchmark is assumed.

In **Limpopo**, 91% of learners **did not reach** the Lowest Benchmark. Western Cape had the most reaching it (45%) followed by Gauteng (31%).

## Grade 4 Benchmark Attainment by Gender

A very high percentage (84%) of boys did not reach the lowest benchmark (see Table 5).

Table 5: Percentage of learners who Did not reach and those in the Low Benchmark category by gender

	Did not Reach	Low Benchmark
<b>Boys</b>	<b>84%</b>	<b>11%</b>
Girls	72%	19%

## 5-year National Trend in PIRLS Cycles: 2011-2016

Trend analysis of achievement results is possible between the 2011 and 2016 participation for PIRLS and PIRLS Literacy (for more information see Howie, et al., 2017). In the 2006 cycle, the South African Grade 4 PIRLS mean scores were very low and results from the African languages could not be utilised. However, the Afrikaans and English Grade 4 measurements from 2006 were sufficiently robust and can be used for trend comparisons.

### Comparisons possible for Grade 4:

- 2011 and 2016 all 11 languages
- 2006, 2011 and 2016 Afrikaans and English

In Figure 10, the performance in **2011** and **2016** can be seen.

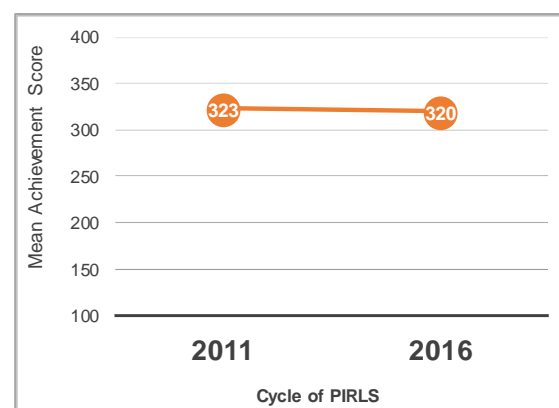


Figure 10: South African Grade 4 PIRLS Literacy mean achievement scores for 2011 and 2016



There is **no statistically significant** difference between the two rounds of participation for 2011 (323 score points) and 2016 (320 score points).

## 10-year Trend in PIRLS cycles: Grade 4 Afrikaans and English

There were **no significant** differences for learners writing in Afrikaans and English in the 10 years across three cycles (see Figure 11).

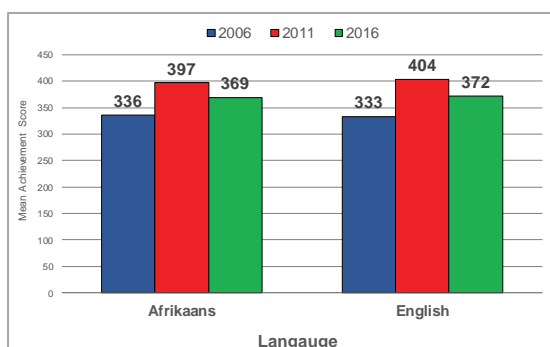


Figure 11: Grade 4 Afrikaans and English achievement in 2006, 2011 and 2016

**Afrikaans:** The 2006 and 2016 cycles were also not significantly different from one another, indicating no change over 10 years.

**English:** There was no significant difference in the achievement between 2006 and 2016 indicating no change over 10 years. Even though the 2016 score is lower, it is not statistically significant.

When the English and Afrikaans results are combined for each of the cycles, the average of the two languages in **2011 (401)** and **2016 (371)** are **significantly higher** than the average of **2006 (334)**. But the 2011 average of the two languages is **significantly higher** than their 2016 average.

## Trends in Achievement in 11 Languages in 2011 and 2016

In Table 6, the mean achievement scores are shown per language for 2011 and 2016.

Out of the 11 official languages, significant improvements were discovered in five languages between the cycles (marked in green with asterisk). **isiNdebele, Sepedi, Sesotho, Tshivenda** and **Xitsonga** had statistically **higher achievement** in 2016 compared to 2011. These five languages started from a very low base in 2011.

Table 6: Grade 4 participation in PIRLS cycles the mean scores per language

	2011	2016
English	403	372
Afrikaans	397	369
<b>Sesotho*</b>	<b>283</b>	<b>319</b>
<b>isiNdebele*</b>	<b>295</b>	<b>319</b>
siSwati	313	312
isiZulu	303	303
<b>Xitsonga*</b>	<b>262</b>	<b>301</b>
<b>Tshivenda*</b>	<b>249</b>	<b>298</b>
Setswana	286	293
isiXhosa	287	283
<b>Sepedi*</b>	<b>241</b>	<b>276</b>

## Trends by Gender in Cycles

Within each cycle, the **girls** achieved **significantly higher** scores than the boys (see Figure 12).

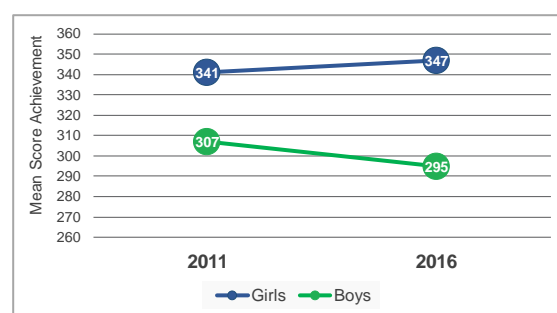
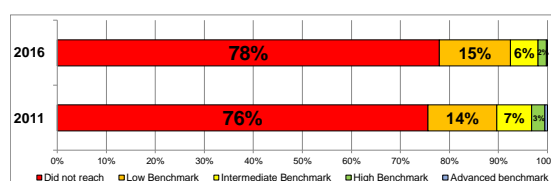


Figure 12: Gender achievement for Grade 4 per PIRLS cycle

There was no significant difference within each gender between 2011 and 2016.

## Grade 4 Benchmark Attainment per PIRLS Cycle

In 2016, **fewer learners** (22% compared to 24% previously) overall were able to attain the International Benchmarks as can be seen in Figure 13. There was a **drop at the top** of the distribution. **Only 1.9%** reached the top two benchmarks (Advanced and High Benchmarks) **in 2016** compared to **3.2%** in **2011**. Fewer learners attained the Low Benchmark.



Advanced Benchmark: 0.5% reached in 2011 and 0.2% reached in 2016

Figure 13: South African Grade 4 PIRLS Literacy attainment of benchmarks per PIRLS cycle

## Background Factors associated with Achievement

Selected variables from the *School, Teacher and Home Questionnaires* were analysed and are reported below. The average class size was 45 learners per Grade 4 class in South Africa, an increase from 40 in 2011.

In Figure 14, the school locations are shown. Most of the learners attended schools in **rural areas (39%)** and small towns or villages (**20%**) as well as townships (**18%**).

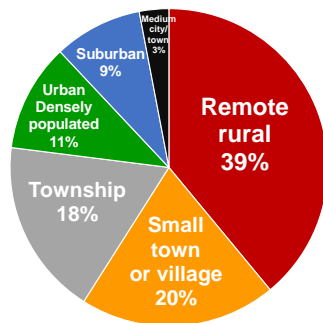


Figure 14: School location of Grade 4 learners

Only 3% of learners attended schools in medium-sized cities or small towns.

The average age of the Grade 4 learners sampled in South Africa was **10.6 years**, one of the oldest countries and above the international average of 10.2 years. A greater percentage of **boys (52%)** than girls was represented in the sample.

## School Environment

In Figure 15, the school reports on the economic background of learners is shown as well as associated achievement.

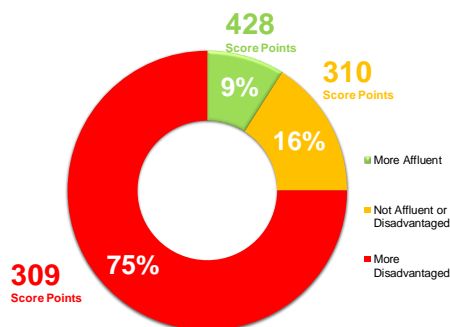


Figure 15: Grade 4 learner economic background

Principals reported that as many as **75% of learners** come from disadvantaged backgrounds.

There is a **large, significant difference in achievement** between those learners from disadvantaged backgrounds (**309 points**) and from more affluent backgrounds (**428 points**).

The **majority (94%)** of Grade 4 learners attended schools with **resource shortages** affecting their instruction to some extent and this was related to achievement (Figure 16).

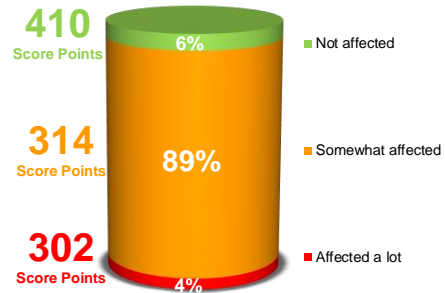


Figure 16: Grade 4 learner instruction affected by resource shortages in PIRLS Literacy 2016

Schools **not being affected** by resource shortages had the highest mean score at **410** score points.

According to the school principals, most (**62%**) schools **do not have a school library** as depicted in Figure 17.

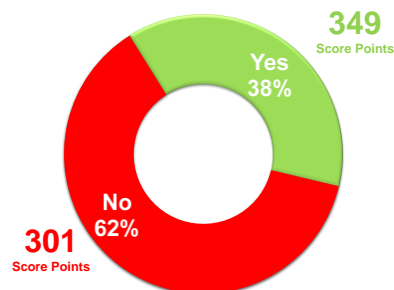


Figure 17: School libraries reported in Grade 4 PIRLS Literacy study

Grade 4 learners, on average, **scored lower (301)** when they attended schools with no school library.

The frequency of bullying reported by the Grade 4 learners is shown in Figure 18.

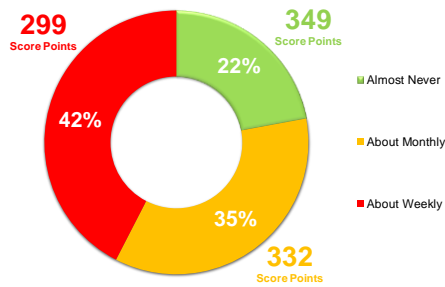


Figure 18: Frequency of bullying reported by Grade 4 learners in PIRLS Literacy 2016 study

Those learners (42%), who reported **weekly bullying**, achieved on average 50 points less than those almost never bullied (299 compared to 349 points respectively).

Figure 19 below show the frequency of problems experienced with school discipline and safety.

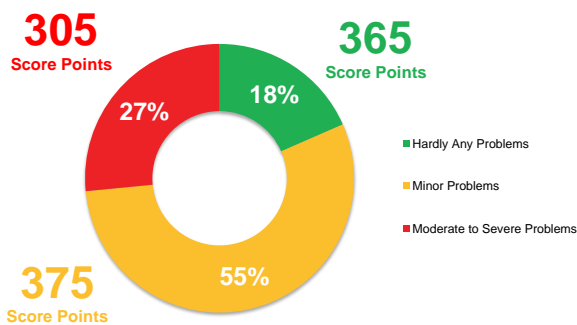


Figure 19: Grade 4 school discipline and safety

Learners achieving the **highest mean score** of 375 attended schools with **minor problems**. Grade 5 learners in schools where the principals reported **moderate to severe problems** had the lowest mean achievement (305).

In Figure 20, principals' reporting of problems with **teacher behaviour** is shown.

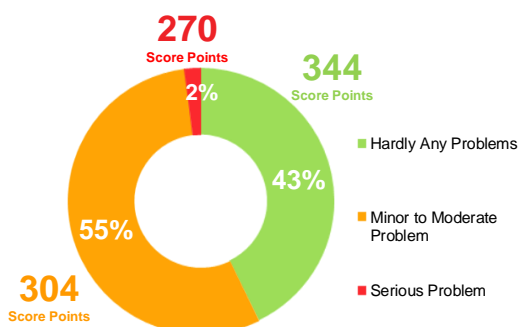


Figure 20: Problems with teacher behaviour

A total of 43% of Grade 4 learners attended schools where the principals reported that there were **Hardly Any Problems** with the teachers and they achieved 40 points more than those in schools (55%) with **minor to moderate problems**.

**Absenteeism** of teachers and **failure to complete the curriculum** were problematic in 60% of schools and arriving late for school in 46% of schools.

## Classroom Contextual Factors

In Figure 21, the teachers of Grade 4 learners in the PIRLS Literacy 2016 study reported on their highest formal qualifications.

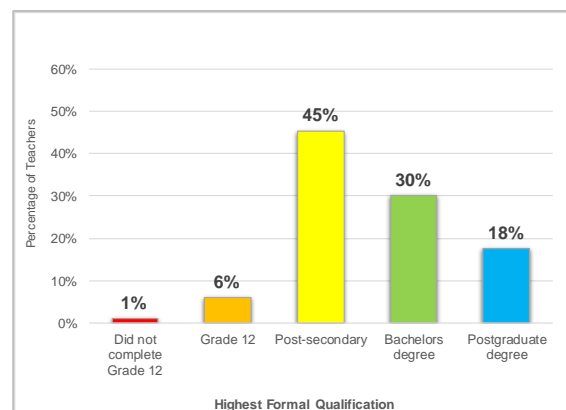


Figure 21: Formal qualifications as reported by the teachers of Grade 4 learners

**Seven percent** of learners were taught by **teachers without the minimum formal qualifications** for teaching. The largest group of learners (45%) are taught by teachers with College of Education qualifications.

Forty percent of learners are taught by teachers with **20 or more years of teaching experience** (Figure 22). The average experience dropped from 17 years in 2011 to 15 years in 2016.

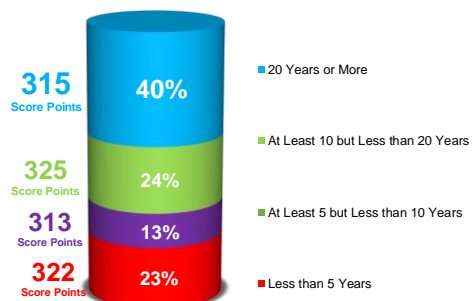


Figure 22: Teacher years of experience in PIRLS Literacy 2016

There is **no clear association** between the formal qualifications and achievement.



A curvilinear pattern is observed and learners, whose teachers had between 10 and 20 years of experience and teachers with less than five years of experience, achieved the highest mean scores.

In Figure 23, the age categories of teachers are shown for the Grade 4 PIRLS Literacy 2016 study.

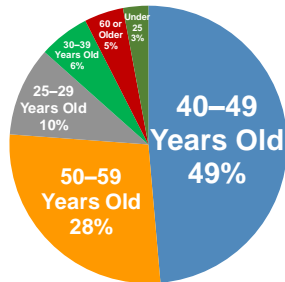


Figure 23: Grade 4 learners taught by teachers in different age categories

Most learners (80% and more) are taught by teachers older than 40 years of age. Only 3% of the learners were taught by teachers younger than 25 years old. Only 5% of the learners were taught by teachers older than 60.

Figure 24 shows the job satisfaction reported by the teachers of Grade 4 learners.

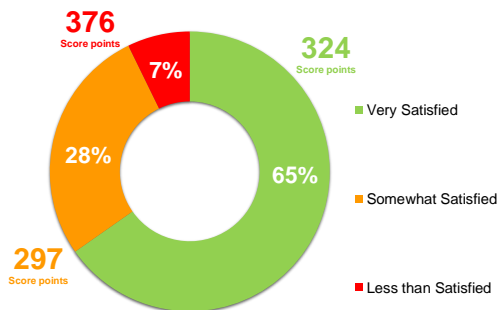


Figure 24: Grade 4 teacher job satisfaction

Overall, most of the Grade 4 learners were taught by teachers who **were very satisfied with their career (65%)**. Only 7% of learners were taught by teachers who were **less than satisfied** with their teaching career and these learners achieved the highest mean score (376 points).

Learners were asked how much they enjoy reading activities, and their responses and associated reading literacy mean scores are shown in Figure 25. More than **half (55%) of learners** said they **like reading** and their mean achievement score was 340 score points. This is in comparison to those who do not like reading (9%) and who obtained the lowest achievement (282 points).

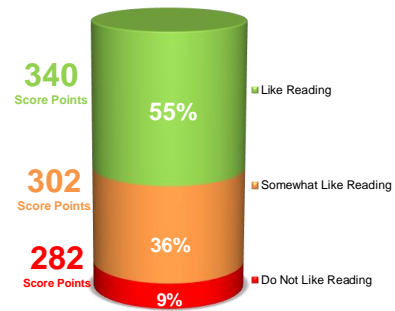


Figure 25: Grade 4 learner enjoyment of reading

Figure 26 shows how often learners said they were absent from school.

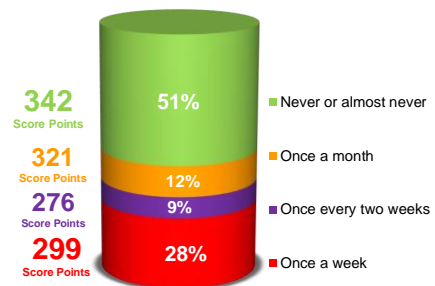


Figure 26: Grade 4 Learner absenteeism and achievement

A greater number of South African learners were **absent** more often than their peers internationally. On average, **37%** of learners said they were absent from school at least **once a week or every two weeks**, and achieved 49-66 points less than learners who were **never or almost never** absent (51%) from school.

In Table 7, the percentage of learners in classes with **classroom libraries** are shown as well as their associated mean achievement.

Table 7: Classroom libraries

Response	%	Mean
Yes	54%	332
No	46%	308



A total of **54% of learners** were in classes which have a classroom library and those learners had a higher mean score at **332** score points.

## The Home Environment

Parents <sup>1</sup>were asked how much they enjoyed reading (see Figure 27).

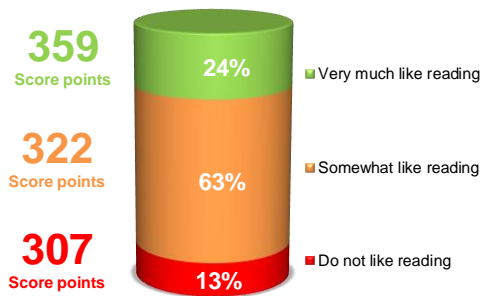


Figure 27: Parents of Grade 4 learners report enjoyment of reading

The quarter of learners who had parents that **very much like reading** achieved the highest mean score at 359 points in contrast to those whose parents **do not like reading** and these learners achieved the lowest score (307).

Figure 28 shows the frequency of homework Grade 4 learners received, according to their parents or guardians.

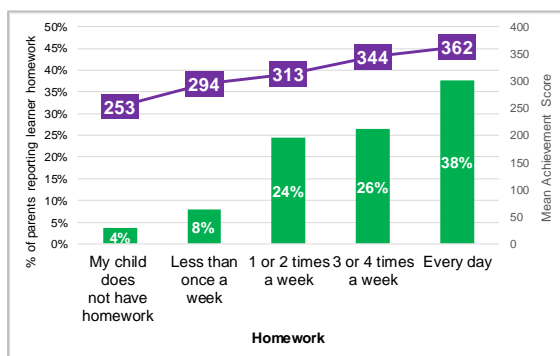


Figure 28: Grade 4 learners with homework according to parents

More than one in three learners who receive homework daily achieved the highest score. Overall, there is a consistent positive relationship between frequency of homework and **higher reading scores**.

When parents **often read stories, sang songs, played with their child and talked to them** before the child started school, learners achieved higher mean scores (as shown in Figure 29).

Learners who had parents who **never or almost never** did any early literacy activities had the lowest mean score (**269 points**).

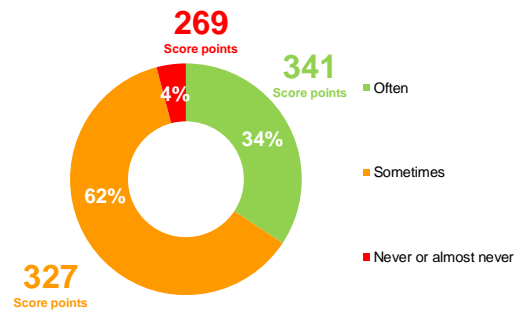


Figure 29: Early literacy activities and learner reading achievement

Most Grade 4 learners **attended** a preschool (85%) and achieved **higher** mean scores (**333 points**) than those who **did not attend** (see Figure 30).

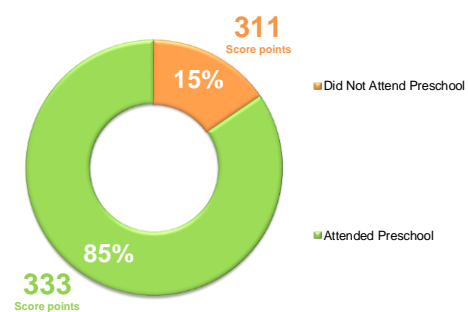


Figure 30: Percentage of Grade 4 learners who attended preschool and learner achievement

Having **resources** in the home such as books, child's own room, internet access, better-educated parents and higher-level occupations is strongly associated with learner reading literacy achievement (see Figure 31).

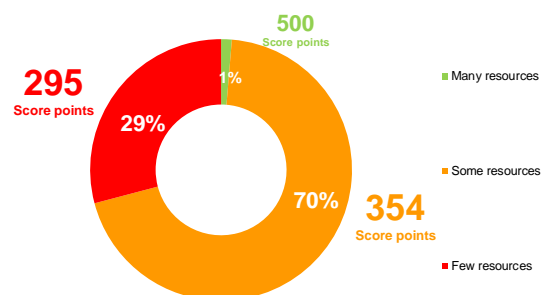


Figure 31: Home resources for learning and learner achievement

The **1%** of learners who came from homes with many resources achieved scores at the international centre point (500 points). Most learners (**70%**) came from homes with some resources.

<sup>1</sup> In PIRLS South Africa, the term "parent" is inclusive of guardians or caregivers for the children that were tested.

---

## Key findings of PIRLS Literacy Grade 4 Study

---

South Africa was the **lowest performing country (mean score of 320)** out of **50 countries** in the PIRLS 2016 study. On the PIRLS scale, approximately 40 score points are equal to a year's schooling. This means that South Africa may be **six years** behind the top performing countries. There was no change (no statistical difference) overall in the score between PIRLS 2011 and PIRLS 2016.

Around **78% of South African Grade 4 learners** do not reach the international benchmarks and therefore do not have basic reading skills by the end of the Grade 4 school year, in contrast to **only 4%** of learners **internationally**.

Learners writing in **African languages** attained the **lowest mean scores**, significantly lower than those writing in **Afrikaans** and **English**. The lowest performing language was Sepedi **below 300**.

Between **2011 and 2016** although there is **no overall difference**, there is a statistical difference and **improvement in performance for five African languages** (isiNdebele, Sepedi, Sesotho, Tshivenda and Xitsonga languages). However, these languages also started from a very low base in 2011. Learners writing in Afrikaans and English had **no significant difference** in achievement between **2006 and 2016**. There was also no significant difference between Afrikaans and English achievement.

**More than 80%** of learners who were tested in an **African language** did not reach the Low Benchmark (could not read for meaning). In **Sepedi** and **Setswana**, **90%** or more could not read for meaning. More than half of the learners writing in **Afrikaans** and **English** attained the Low Benchmark, even though this was low by international standards. Fewer learners in 2016 attained the benchmarks. There was also a drop at the top with fewer learners reaching the High Benchmark and the Advanced Benchmark.

The **Western Cape, Free State** and **Gauteng** achieved the three highest scores in the PIRLS Literacy 2016 study, although well below the international average of 500. The **Eastern Cape** and **Limpopo** were the lowest performing provinces.

Grade 4 **girls** performed **significantly better (more than 50 points)** than boys in PIRLS Literacy 2016 and South Africa had the second largest gender gap internationally. **84% of boys** could **not reach the Low Benchmark**, compared to 72% of girls. Whilst in each cycle of PIRLS, girls performed significantly better than boys, there was no significant difference

for girls or for boys between their 2011 and 2016 achievement.

Learners living in **remote rural areas, small towns or villages** and **townships** had the lowest reading literacy achievement (between **291 and 312** points). **Urban, suburban** and **medium or large towns** had higher achievement (**up to 417 points**).

Most **Grade 4 learners** spoke the **language of the test** at home. Contrary to other languages, only **21%** of Grade 4 Learners in English schools said they **speak English at home** (and achieved about 90 points more than those who spoke a different language at home).

The **school climate factors** that were analysed revealed that three-quarters of **Grade 4 learners** came from **economically disadvantaged** backgrounds whilst learners from **affluent** backgrounds attained significantly higher reading literacy achievement. Learners in schools not affected by resource shortages achieved almost 100 points than those affected. Almost **two-thirds of Grade 4 learners** are in schools (62%) which **do not have school libraries**, and they scored significantly lower scores than those in schools with libraries. As many as **42% of Grade 4 learners** reported being bullied weekly and their associated reading literacy scores were much lower than those not as frequently bullied. Closely related to this is the fact that a quarter **of the learners** attended schools where principals said school **discipline and safety** were moderate to severely problematic. More than half the learners were in schools where the principals **reported minor to moderate problems** with teacher behaviour (absenteeism, failure to complete the curriculum, arriving late).

There were considerable differences in **classroom** conditions. Despite the policy stipulating 40 learners in a class, **South African Grade 4 class sizes** are on average **45 learners** and this has **grown substantially** over the past 10 years and is negatively correlated with achievement. South Africa on average had experienced teachers (15 years of experience). Half of the teachers were in the **40 to 49-age** group. Most teachers were very satisfied or somewhat satisfied with their teaching profession. About half of the classrooms (54%) have libraries and more than half of learners **enjoy reading** and less than 10% do not enjoy reading. Nearly one in three learners are **absent** from school at least **once a week**, and their associated reading literacy scores were much lower than those who were never or almost never absent.

**Parents** are less positive about reading in general but children of parents who do **enjoy reading** achieve higher scores. More than a third of learners received **homework** daily and their reading literacy scores were higher than those who did not receive homework. The **one percent** of Grade 4 learners

who came from homes with more resources at home had the highest reading literacy achievement and comparable to the international average. Learners whose parents did early reading literacy activities with their child before school, tended to achieve much higher reading literacy scores.

## Main Recommendations of PIRLS Literacy 2016 (Grade 4)

Whilst the full PIRLS Literacy report (Howie et al., 2017) elaborates on recommendations more in-depth, a few recommendations are summarised:

- Strengthen teaching of reading literacy and training of pedagogical content knowledge of teachers across all languages in the Foundation Phase and especially African languages.**
- Increase proportion of time spent on reading in Foundation and Intermediate phases in the curriculum as well as encourage extra-mural reading and reading habits.**
- Initiate Pre-primary Campaigns for parents and teachers and emphasise importance of Early Literacy activities and training at pre-primary level.**
- Urgently reduce class sizes to policy stipulations and stop the “creep” that is occurring across all schools and provinces.**
- Increase efforts to attract younger quality candidates into teaching to address attrition.**
- Target interventions for high-risk populations including boys, learners living in remote rural areas, townships. Limpopo, the Eastern Cape and Northern Cape provinces need additional support.**
- Provide and increase school resources such as school libraries and classroom libraries, especially in areas where performance is poor.**
- Review interventions on ICT provision in primary schools and increase effective and sustainable access to ICT and utilisation thereof in education.**
- An intervention is needed to reduce teacher and learner absenteeism at primary schools.**
- Increase and implement programmes addressing bullying at schools.**
- Campaign for greater parental involvement in school and learner activities.**

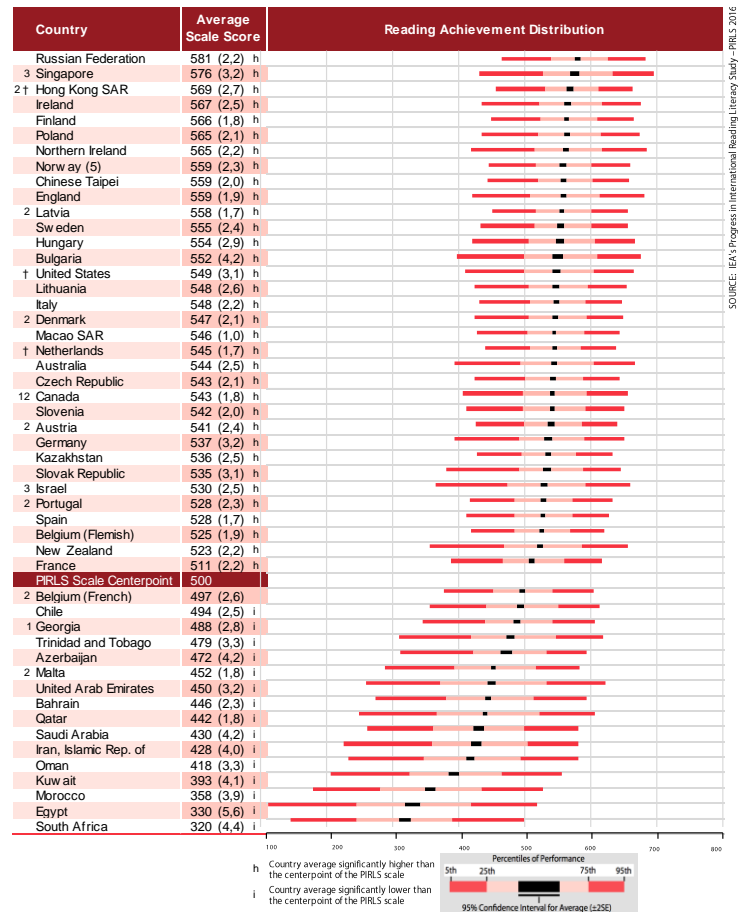
### How to reference this report:

Howie, S.J., Combrinck, C., Roux, K., Tshele, M., Mokoena, G.M., & McLeod Palane, N. (2017). *PIRLS LITERACY 2016: South African Highlights Report*. Pretoria: Centre for Evaluation and Assessment.

### References:

Howie, S.J., Combrinck, C., Roux, K., Tshele, M., Mokoena, G.M., & McLeod Palane, N. (2017). *PIRLS Literacy 2016 Progress in International Reading Literacy Study 2016: South African Children's Literacy Achievement*. Pretoria: Centre for Evaluation and Assessment.

## APPENDIX A: ACHIEVEMENT OF PIRLS 2016 COUNTRIES



**PIRLS 2016 in South Africa was funded by the Department of Basic Education and the University of Pretoria and the CEA gratefully acknowledges their support.**



basic education  
Department:  
Basic Education  
REPUBLIC OF SOUTH AFRICA