

Progress in International Reading Literacy Study 2021

South African Preliminary Highlights Report



basic education

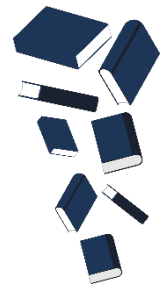
Department:
Basic Education
REPUBLIC OF SOUTH AFRICA



Introduction

The Progress in International Reading Literacy Study (PIRLS) assesses reading comprehension and monitors trends and indicators of growth in reading literacy at five-year intervals. This project falls under the auspices of the International Association for the Evaluation of Educational Achievement (IEA). The PIRLS international scale has a range that is set from 0 to 1 000, with a centre point of 500, and a standard deviation of 100. PIRLS 2021 marks the fourth cycle of South Africa's participation in the study.

Studies like PIRLS allow participating countries to make international comparisons across education systems and monitor trends and indicators of growth in the early phases of children's education. While attention will be drawn to the overall league table standings that are released after every cycle to indicate country positions, the value of large-scale international assessments is most valuable in analysing data and trends against the IEA's tripartite curricular framework. In this framework, the link between the intended curriculum (as described by policy and curricular documents), the implemented curriculum (that which is taught in schools) and the attained curriculum (as seen by learner achievement) is essential for ensuring that assessment instruments that are developed are fair, reliable, valid and accurate for cross-national use.



It is important to note that PIRLS 2021 is the first international large-scale assessment to report achievement trends after successfully collecting data during the COVID-19 pandemic, assessing 400 000 students in 57 countries. PIRLS achievement trends in fourth grade reading show a negative impact from the COVID-19 pandemic; home and school socioeconomic status persist as strong indicators of achievement; most children attend schools with positive environments; and many learners and their parents only "somewhat" like reading.

Among the 57 participating countries, Africa is underrepresented and South Africa is one of three countries to participate with countries using developed education systems from the global north (Europe, North America, Middle and Far East). In the Sub-Saharan region, South Africa is the only country participating.

An added complexity is that South Africa is the only country in the PIRLS that stratifies its sample among 11 official language groupings resulting in a high percentage of low socio-economic schools featuring. Its diverse non-homogenous language context should always preface a deeper understanding of achieved reading literacy scores.

PIRLS objectives

- To assess how well South African Grade 4 and 6 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 official languages, and across all nine provinces.

Participation in PIRLS 2021

Traditionally, the PIRLS main study is conducted during two time periods. Under normal circumstances, participating countries from the Southern Hemisphere would have collected data from October to December 2020, when the school year for Grade 4 learners was close to its end.

Children are therefore tested at the end of an academic year, where they would have enjoyed the full benefit of a year's education. For Northern Hemisphere countries, data collection would typically occur from March to June 2021 since these months correspond to the end of the school year for Grade 4 learners from these countries, keeping the same rationale in mind that learners would have enjoyed the full benefit of a year's education.

South African Participation in PIRLS 2021

Grade 4 learners were assessed across the 11 official languages. Grade 6 learners were assessed in English and Afrikaans. A total of 12 426 Grade 4 learners were assessed, and 9 317 Grade 6 learners were assessed. The 2021 sample was nationally representative, and was stratified by language and province.

Impact of COVID-19



COVID-19 unexpectedly brought all of the standard PIRLS plans and procedures to a halt in March 2020, and new strategies for data collection had to be devised. Only 43 countries managed to collect achievement data on schedule. For purposes of PIRLS 2021, data collection took place in three waves.

Wave 1 refers to most PIRLS 2021 countries, including the Northern Hemisphere countries that collected data during March–June 2021 and Southern Hemisphere countries that collected data according to the original schedule during October–December 2020.

Wave 2 refers to 13 Northern Hemisphere countries where COVID-19 led to school closures to the extent that Grade 4 children were tested in Grade 5 when they returned to school in September 2021.

Wave 3 refers to 3 countries that tested their learners at the end of Grade 4 in 2022. However, data was not collected in time for inclusion in the PIRLS 2021 international report.

South Africa collected data during Wave 1, August–December 2021. Plans for South Africa to test in 2021 had been in place before COVID-19 to create extra time for the translation process. This process is the most complex and time-consuming for instruments to be accurately translated into all 11 official languages. The IEAs translation verification process quality-assured all assessment instruments for South Africa.

Despite the COVID-19 pandemic South Africa ensured that data collection activities in both grades were completed with high participation rates. However, learners experienced incredible disruption to teaching and learning and research indicates that learners in all South African schools, especially those from the most fragile and vulnerable sectors of the school population experienced significant loss of learning and teaching time due to national lockdowns, school closures and rotational attendance.

Achievement Assessments

Each learner was requested to complete an assessment booklet. Each booklet had two passages:

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

The international versions of the passages in US English were changed to UK English; the English passages were also contextualised for South Africa. The passages completed by Grade 4 learners were translated into 10 languages, whereas the Grade 6 passages were only translated into Afrikaans. Learners were tested in the Language of Learning and Teaching (LoLT) used in Grade 1-3 in their school.

The PIRLS assessment consists of 18 passages and accompanying questions. The passages are spread across 18 different booklets in accordance with the group adaptive design. This meant that 70% of the passages were less difficult and 30% more difficult. Children seated next to one another would answer different booklets.



Questionnaires

There were five background questionnaires:

- Early Learning Survey (parent/guardian/home);
- School Questionnaire (principal);
- Teacher Questionnaire (classroom);
- Learner Questionnaire (student); and
- Curriculum Questionnaire (national).

Grade 4 and 6 PIRLS Attained Sample

A total of **12 426 Grade 4 learners** in **321 schools**, and **9 317 Grade 6 learners** in **253 schools** were assessed. The Grade 4 learners were representative of the 11 official languages and nine provinces, while Grade 6 was only representative of Afrikaans and English and the nine provinces. South Africa's Grade 4 and 6 participation rate was **97%** and **98%**, respectively (after replacements).

Grade 4 and 6 Achievement in PIRLS 2021

South Africa's results are shown in Figure 1, as compared to a select few other countries that wrote the PIRLS assessment.

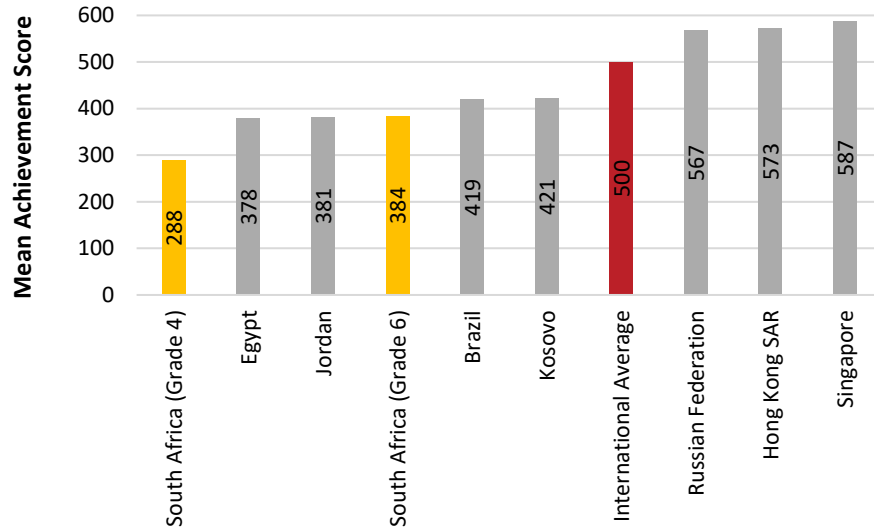


Figure 1: South African Grade 4 and 6 achievement compared to other PIRLS countries

For South Africa, the PIRLS 2021 study reveals very low performance levels on learners' ability to read for meaning as they turn 10. South Africa, at **288 score points**, performed **significantly below** the PIRLS centre point of 500. Singapore (587) was the highest performing country. All African countries performed below the international average.

Grade 4 and 6 Performance by Test Language

As can be seen in Figure 2, the highest performing test languages in **Grade 4** were **Afrikaans (387)** and **English (382)**, followed by isiZulu (267) and Sesotho (258). The **Grade 6 Afrikaans** learners obtained **456 points** compared to **English** learners, who obtained **377 points**. There was thus a **79-point difference** between these two languages.

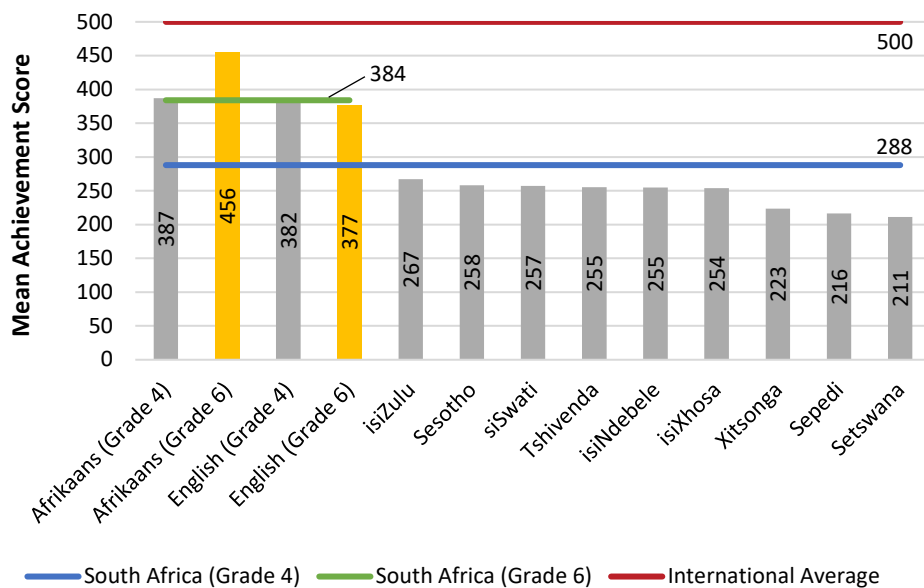


Figure 2: Grade 4 and 6 PIRLS achievement by language of test

The lowest performing languages were **Sepedi (216)** and **Setswana (211)**. The learners writing in English and Afrikaans achieved significantly higher scores than learners writing in the African languages.

Grade 4 and 6 Performance in Nine Provinces

Across both **Grade 4 (363)** and **6 (460)**, the **Western Cape** was the highest achieving province, as shown in Figure 3. The lowest performing province for **Grade 4** was **North West (232)**, and for **Grade 6** was the **Eastern Cape (351)**.

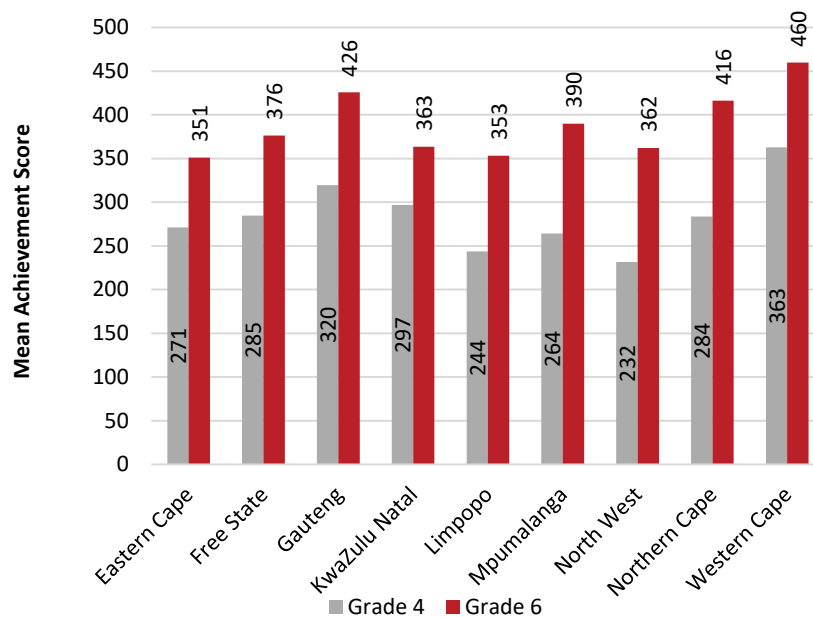


Figure 3: Grade 4 and 6 PIRLS achievement by province

At both Grades 4 and 6, there was a **significant difference** between the **highest and lowest** performing provinces.

A difference of **131 points** was found between the **Western Cape** and **North West** at Grade 4 level. Whereas a **109 point** difference was found between the **Western Cape** and the **Eastern Cape** at Grade 6 level.

Grade 4 and 6 Performance by Gender

A greater percentage of **Grade 4 boys (51%)** than **Grade 4 girls** was represented by the sample, as shown in Figure 4.

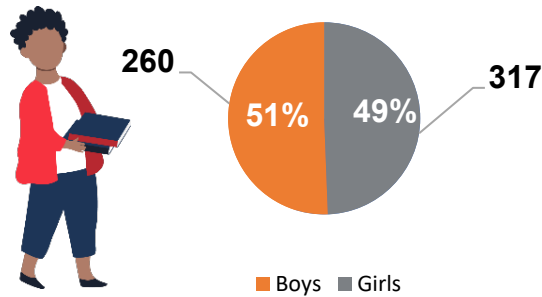


Figure 4: Grade 4 PIRLS achievement by gender

At 317 score points, Grade 4 girls achieved 57 score points higher than Grade 4 boys (260), which was statistically significant.

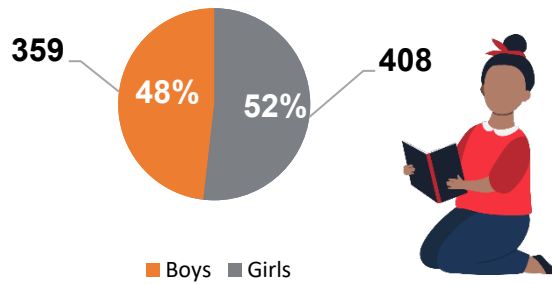


Figure 5: Grade 6 PIRLS achievement by gender

Grade 6 girls achieved an average score of 408, which is 49 score points higher than the Grade 6 boys (359), which was statistically significant.

PIRLS International Benchmarks

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

Learners who do not reach the lowest benchmark (below 400 points) cannot 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 for events in text, as well as giving basic explanations for actions or information.
- **High International Benchmark (550 - 624):** 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

81% of South African Grade 4 children were not able to reach the lowest benchmark, as shown in Figure 6.

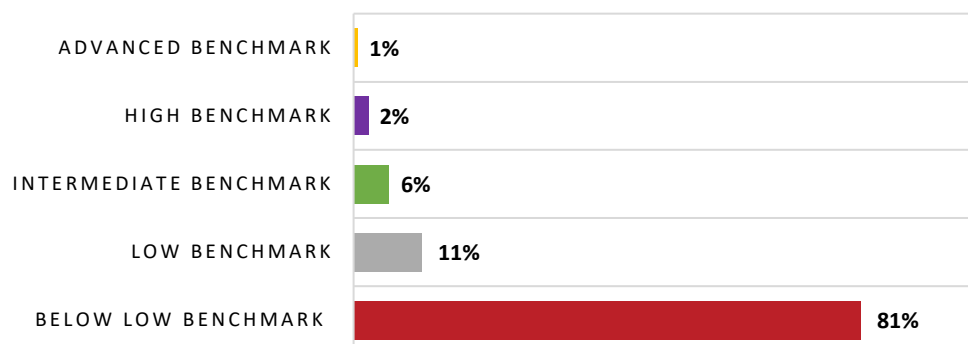


Figure 6: Grade 4 benchmark attainment

Learners who did not reach the lowest benchmark could not correctly locate explicit information or reproduce required information from a text at the end of Grade 4. Almost one in five did reach the Low Benchmark and 1% of South African Grade 4 learners did attain the **Advanced Benchmark**.

Grade 6 Benchmark Attainment

A total of 44% of South African Grade 6 children were able to reach the **Low Benchmark**, see Figure 7.

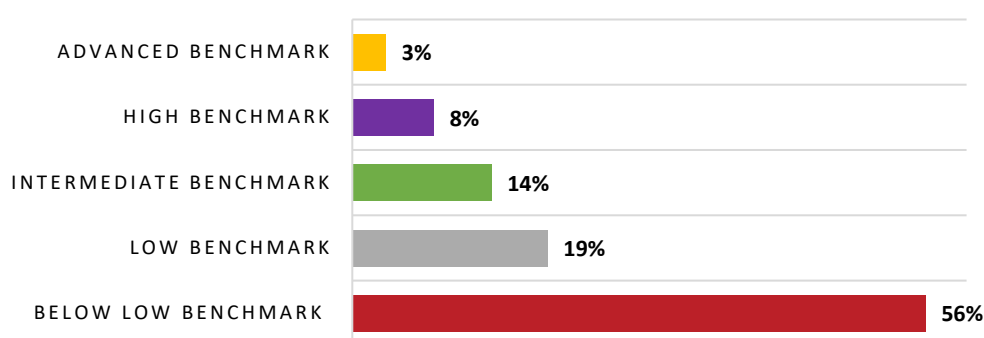


Figure 7: Grade 6 benchmark attainment

8% of Grade 6 learners reached the **High Benchmark**, while 3% reached the **Advanced Benchmark**.

5-year National Trend in PIRLS Cycles: 2016-2021

One of the points of interest in PIRLS is evidence of trend growth (or decline) from one cycle to the next. Establishing a trend requires a different cohort of Grade 4 learners to respond to a selection of the same reading passages from PIRLS 2016, and PIRLS 2021.

In Figure 8, the performance in 2016 and 2021 can be seen.

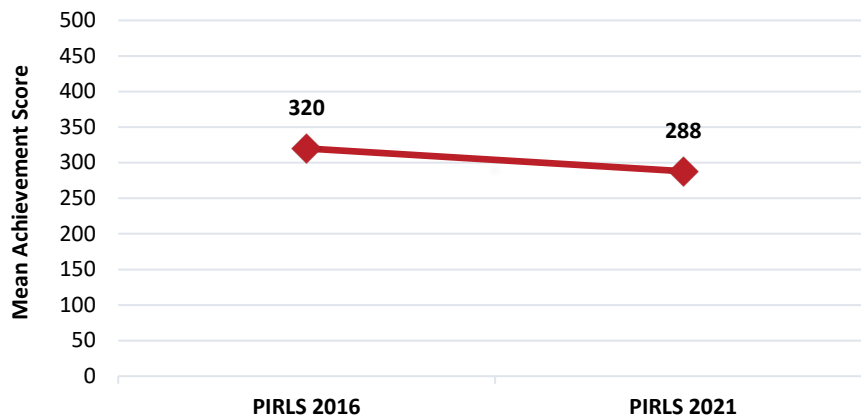


Figure 8: Trends in overall Grade 4 achievement across PIRLS 2016 and PIRLS 2021 cycles

There is a **32 score point** difference between the two cycles. The difference in scores between these two cycles is **significantly different**, probably due to the learning deficits experienced in the pandemic.

5-year Trend in PIRLS Cycles: 2016-2021 by Language

Figure 9 shows the five-year trend by language for South African Grade 4 learners.

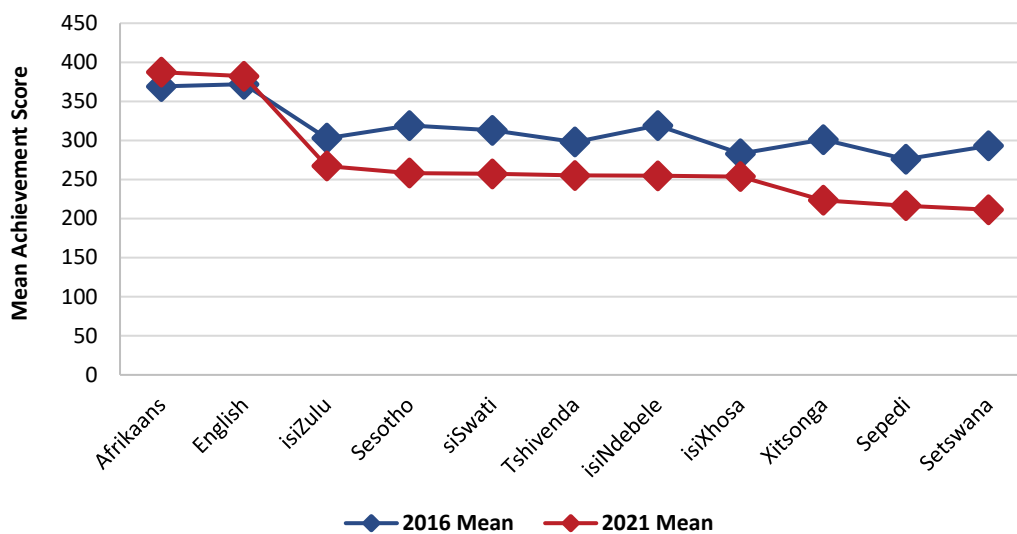


Figure 9: Trends in Grade 4 achievement across PIRLS 2016 and PIRLS 2021 cycles by language

Learners who completed the PIRLS assessment in **English** and **Afrikaans** performed **higher** on the 2021 assessment than in 2016. While the differences in scores, over the five-year period, for English and Afrikaans were **not significant**, this finding may indicate that the growth between the two cycles were negatively affected by the COVID-19 pandemic. For the **African languages**, the Grade 4 learners performed **lower** on the 2021 assessment.

Conclusions

According to the IEA, the PIRLS 2021 assessment appears to be too difficult for a high percentage of South African Grade 4 learners and recommends that South Africa participate in the IEA's Literacy and Numeracy Assessment (LANA) study, which is targeted to learners in low- and middle-income countries. The international report also highlights reservations about South African Grade 4 results, noting that the percentage of learners with achievement scores too low to be estimated exceeded 25%. However, South Africa is conducting a verification of these results; therefore, the reported scores should be treated with **caution**. The outcome of the verification process will be made available at a later stage. Hence, this report is considered preliminary.

The Grade 6 learners achieved a higher overall score than the Grade 4 learners. There is **no significant difference** between the **English Grade 4** (382) and the **English Grade 6** (377) scores. A difference of **69 score points** between **Afrikaans Grade 4** (387) and **Afrikaans Grade 6** (456) is **significantly** different. Almost all the African language speaking grade 6 learners were tested in English.

Previous rounds of PIRLS have evidenced the high achievement outcomes of the English-speaking and Afrikaans-speaking groups compared with the others. Where these languages were spoken at home, the test results were even higher and therefore the gaps bigger across the African languages.

Recommendations

Upscale the teaching of reading literacy in schools - this could be in the form of professional development for language teachers to enhance their pedagogical content knowledge. Teachers should start with the basics such as building vocabulary, how to decode, phonological awareness and phonics but should also extend their teaching strategies towards language comprehension (being able to understand the meaning of the words and sentences). Readers who have a strong understanding of this can then draw conclusions after reading a text.

Revising the curriculum policy - specifically the time available for reading and writing. Currently the curriculum provides six hours for home language per week, but this period of six hours is divided among the different skills the learners must be competent in, leaving the skill of reading with only five hours per two-week cycle. This time could be extended considering the stages of reading.

Equitable provision of reading resources in schools - there are NGOs that run book donations, but the NGOs do not cover all schools between Quintiles 1 - 3. DBE should allocate funding specifically for these schools to have classroom libraries with books that are grade appropriate. The DBE could look into the supply of a specific teaching reading manual that teachers can easily access.

Partnerships to build teaching capacity - work with organisations, provincial education departments and teacher unions to bolster teaching and motivate teachers to strengthen their school based assessment.

Investigating the role of HEI in teacher training - the importance of teacher training should be stressed. An exploration of how pre-service teachers are taught should be considered; having a look at aspects such as the methodology of languages. Partnerships with HEIs are important to build and support capacity building programmes for training teachers and officials on effective reading literacy strategies.

Targeted focus on indigenous language development - expand on all relevant material available, including graded readers, to schools to promote reading in African languages. Having a panel of African language experts and, more importantly, storytellers develop reading materials for school-going children may boost learners' appetite for reading.

Present a series of workshops and seminars - focusing on both staff from the Assessment Directorates, other education directorates as well as key stakeholders, on the effective utilisation of the assessment data, highlighting the PIRLS results as well as results from the systemic evaluations and Early Learning National Assessment studies, for improving evidence-based decision making at the national and provincial level.

Further Reads

Van Staden, S., Roux, K., Tshele, M. (2023). *PIRLS 2021: South African Children's Literacy Achievement*. Centre for Evaluation and Assessment.

Van Staden, S., & Roux, K. (2022). South Africa. In K.A. Reynolds, E. Wry, I.V.S. Mullis & M. von Davier, *PIRLS 2021 Encyclopedia*. <https://pirls2021.org/south-africa>

How to reference this report

The contributing authors were Roux, K., van Staden, S., & Tshele, M. with additional commentary by the Department of Basic Education. For any enquiries relating to the report and further use of PIRLS data, please contact Dr M Chetty, Director of National Assessment at the Department of Basic Education. The Report can be referenced as follows:

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