RESEP Research on Socio-Economic Policy

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International Tests: What are they and why should South Africa participate? Grace Bridgman

RESEP Policy Brief

South Africa takes part in three major international assessments: TIMSS, PIRLS and SEACMEQ. This brief explains what these tests are, why they are important for South African policy makers, and their relevance for the improvement of the South African education system overall.

1. What are the tests?

Test Name	What does this stand for?	What does it test?	Which grades are tested?	Who Administers it in South Africa?	How many schools take the test?	How long does it take?
PIRLS	Progress in International Reading and Literacy Study	Reading and Literacy	Grade 4	IEC and the HSRC	Between 250 and 300	75 minutes, with breaks.
TIMSS	Trends in Mathematics and Science Study	Mathematics and Science proficiency	Grade 5 and/or grade 9.	IEC and the HSRC	Between 250 and 300	75 minutes for grade 5, 90 minutes for grade 9, with breaks.
SEACMEQ	Southern and Eastern African Consortium for Monitoring Educational Quality	Reading and Numeracy	Grade 6	DBE	Between 250 and 300	75 minutes, with breaks.

APRIL 2020



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This policy brief was produced with the financial support of the Allan Gray Orbis Foundation Endowment

2. What is different about SEACMEQ?

As you can see on the map, TIMSS and PIRLS are written in over 60 countries across the globe. SEACMEQ is specifically purposed to test and help Southern and Eastern African education systems.



The purpose of SEACMEQ tests is "to undertake integrated research and training activities that will expand opportunities for educational planners and researchers". It is important because it focuses on helping researchers to understand and overcome the challenges facing the education systems of developing countries specifically. The **ministries of Education** are closely involved in planning and administering this international test, which means that it can be more closely aligned to assess how we are reaching the goals that the South African DBE has set, as well as the Sustainable Development Goals (SDGs).

3. Is this sample big enough?

Yes, this sample of schools is big enough to give South African researchers and educators a good idea of how the country is doing. It's like dipping a spoon into a pot of soup – you only need a small sip of the soup to get a good idea of what the soup tastes like. In the same way, testing only 250 to 300 schools gives us a good understanding of how the South African education system is doing as a whole.

If the sample is taken correctly, the test results will accurately represent the trends in educational outcomes at the national and provincial level. However, because the results of the international tests are based on a sample, researchers will always admit to varying levels of precision in the results of an analysis with international testing data. Due to the varying levels of precision, confidence intervals are used to transparently communicate the extent to which the true population estimates may differ from the sample estimates. For national estimates, most experts agree that these samples provide a sufficient degree of precision. However, for provincial estimates the confidence intervals can be fairly wide sometimes.

These tests are designed and scored so that certain benchmark scores indicate different levels of proficiency in a subject.



Description	TIMSS	Students may have some ability in math, but not sufficient to score 400 points.	Students have some basic mathematical knowledge.	Students can apply basic mathematical knowledge in simple situations.	Students can apply their knowledge and understanding to solve problems.	Students can apply their knowledge and understanding in a variety of relatively complex situations and explain their reasoning.
	PIRLS	Student may have some ability in reading, but not sufficient to score 400 points.	Reading predominantly simpler literary and informational texts, students can locate and retrieve explicitly stated information	When reading a mix of simpler and relatively complex texts, student can locate and retrieve two or three pieces of information from the text.	When reading relatively complex texts, students can locate and distinguish relevant information within a dense text, and understand details embedded across the text.	When reading relatively complex texts, students can interpret complex information from different parts of the text.

5. What are the advantages of participating? And the limitations?

There are some limitations and drawbacks to participation.

- Some people would argue that it is unhelpful to rank countries so directly, and that this creates **unhelpful competition**.
- It is good to keep in mind that these tests **do not tell us everything** about the South African education system.

Even so, there are many advantages of participating in these international tests.

- Improving educational outcomes in South Africa is a top priority, set out by the Action Plan to 2014.
 In order to measure these improved learning outcomes, it becomes critical to have a valid measure of progress, such as the results from these international tests.
- The results from these tests also **allows South Africa to report on Sustainable Development Goal 4.1**, which is "to ensure that all boys and girls complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes".
- PIRLS, TIMSS and SEACMEQ are **highly regarded international studies** of student achievement, and by participating in them South Africa is included in the global research on improving learner outcomes.
- These **tests provide critical information** about the achievement of South African learners relative to other countries and over time, and identify factors which have influenced their performance.
- These tests enable policy makers, researchers and educators to see how certain policy tools are working, since the tests are comparable over time.
- They provide information about how well South Africa **schools are providing for sub-groups** within South Africa, such as rural schools and students who have African Home Languages.
- South African schools that participate in international studies are **making a valuable contribution to the education community** both nationally and internationally.

6. Does it contribute to over-testing SA learners?

These tests are very important to be able to compare South African educational outcomes over time, and with other countries. Since only a small proportion of South African learners are tested, these tests does not contribute to over-testing.

These assessments are administered in a small sample of schools (less than 5%) every 4 to 7 years, and they are externally marked. Therefore, the "testing burden" on children and teachers in the country is absolutely negligible in comparison with that of all the school-based and common assessments which all schools have to administer throughout the year. Yet the value of the information derived from these assessments is substantially greater than that derived from all the other assessments taking place in classrooms, at least for research and policy analysis purposes.

7. Concluding remarks

This brief details the importance of international testing in South Africa, and answers frequently asked questions regarding these tests. The main policy conclusion is that these tests are a high priority, as they contribute towards a greater understanding of how the South African education system is improving, and where there is work to be done.