


**Changing lives of
ordinary people
through human and
social sciences**



Technology

LIFE ORIENTATION

Mathematics

Dissemination and Usage of TIMSS results in South Africa

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Context

- Pre-1994: There were 14 separate education departments and no sense of national South African performance
- 1994: Democracy and a single education, and a need to provide national performance estimates.
- The only educational national performance statistic was the exit grade 12 level exam (matric).
- TIMSS into the breach: TIMSS 1995 (methodological questions); TIMSS 1999; 2003, 2011 and 2015.
- TIMSS conducted by an independent research science council and funded by Ministry of Education.

What can we say about South African educational performance

- Education is the Number One priority and the country is committed to a knowledge based economy but our educational performance does not support this.
- Education is political and one of the key indicators about the state of the nation.
- Low levels of education: bottom end of rank order performance of participating countries.
- Unequal education : Importance of disaggregated scores.
- Understanding and measuring our performance against ourselves.
- **Role of research in shaping the discussion.**

Framework to analyse and plan dissemination

- Political and Politicians
- Policy and Policy makers
- Practice and practitioners
- Media and the Public

1. Politically

1999: last place rank order was a shock to the education system. Reaction varied from blaming the methodology, to request to withdraw and not go through ‘self-flagellation’. Led to prioritising and higher resources for math and science.

- 2002, 2011 & 2015: Ministers of Education have accepted TIMSS measures and have never tried to change or repress the performance scores.
- Opposition parties consider TIMSS as a trusted measure of performance and trend.

2. Policy and policymakers

From 2000 there have been financial and programmatic investments in school mathematics and science from government and business.

- TIMSS achievement measures built into the M & E measures.
- Dept of Basic Education: Action Plan 2019 ‘Perhaps the most significant news about the system in recent years was the TIMSS 2011 results released at the end of 2012’. [Link to performance.](#)
- TIMSS background data reveal a few of the key trends.

Textbooks usage

And access to computers in schools improved . E.g. In 2011 49% of SA Grade 9 learners had access to computers in schools, against 28% in 2002. South Africa was behind other developing countries, where Botswana’s 86%, Ghana’s 78% and Indonesia’s 82%.

- Policy wants the answer on what would cause the an improvement – a difficult call.

3. Practitioners

- Schools are aware of educational performance.
- No direct interventions from TIMSS. Performance has been low, so from a curriculum point of view everything requires intervention.
- Working on diagnostic report and trying to identify common misconceptions. To work with curriculum advisors and inform teachers and schools more directly.
- Support to Department of Education on provincial meetings with Principals and teachers.

4. Public through the Media

SA Schools at rock bottom of international assessments

SA ranks low on maths, no matter the report

South Africa ranked last when it comes to quality of science and math education

South African mathematics, science education ranked worst in the world

SA 'fails' in maths, science rankings

Changing the public perceptions of education

- What's storyline do we want for SA TIMSS 2015 performance. Coming at the bottom in rank order or how to shift the narrative from rank order to change over time?
- Awareness through the TIMSS website and newsletter (<http://www.timss-sa.org.za/>)
- Meet with a educational reporters to discuss technical aspects of SA performance: what it provides and not provide and extent of change to expect in 4 years. Do not want to appear evangelical – selling stories.
- Release planned for 29 November with Minister and Department of Education. There will be media coverage.
- We would like the following slide to be the storyline.....

Change from TIMSS 2003 to TIMSS 2015

