

# TIMSS SA Newsletter



Education and Skills  
Development  
Research Programme

Human Sciences  
Research Council

May 2019

Volume 4; Issue 1

## TIMSS 2019 is in full swing!

TIMSS 2019 is underway! The main administration was conducted at the Grade 5 level in close to 300 schools across all nine provinces in October 2018. In 2015, Grade 5 learners were assessed only in Mathematics. For TIMSS 2019, learners were assessed in Science as well.

Preparation is underway for the administration at the Grade 9 level, which will take place in August 2019. Grade 9 learners will once again be assessed in both Mathematics and Science. In addition, in order to achieve better estimates, the sample sizes in Gauteng and the Western Cape have been increased, with 150 schools in each province being included in the study. The results will be released in December 2020.

The assessment frameworks for TIMSS 2019 for both Grade 5 and Grade 9 (Grade 4 and Grade 8 internationally) can be found [here](#).

## Election Manifestos Focus on Education

The election manifestos released by political parties provide an indication of their key priorities and goals. We analysed the education section of the manifestos of the three biggest political parties: African National Congress (ANC), Democratic Alliance (DA) and Economic Freedom Fighters (EFF) for new solutions to the country's problems. This [piece](#) was published in the Conversation, as well as various newspapers.



ANC manifesto



DA manifesto



EFF manifesto

## Science Engagement: Youth and the Public

DST launched the Youth into Science Strategy: Nurturing Youth Talent for a Stronger National System of Innovation (YiSS) in 2006. The aim of YiSS was to enhance participation, performance and awareness of science and science based careers of school-going youth and undergraduates in science, technology, engineering and mathematics. In 2014, the DST introduced the Science Engagement Strategy (SES) which provides an “overarching strategic framework to advance science engagement in South Africa” (DST, 2014:3). This strategy advocates for a positive relationship between the public and the STEM community. The HSRC has partnered with the DST since 2003 to conduct tracking, monitoring and evaluation studies. We undertook a 10 year review of DST implementation activities. This [piece](#) provides an overview of a 10 year review (2007-2017), which outlines the various projects and studies which have been undertaken over this time.

One of the interventions is the National Youth Service (NYS) which provides workplace experience for unemployed science graduates. The first NYS participants were placed in various institutions across the country in 2008, and in 2018 a 10 year report examining the NYS was produced. This [summary](#) explains the NYS project and presents some of the key findings of this report.

### Journal articles

#### **Early learning experiences, school entry skills and later mathematics achievement in South Africa**

This [paper](#) by **Mariette Visser, Andrea Juan and Sylvia Hannan** aimed to determine the association between parents' reports of engagement in pre-Grade 1 learning activities and school entry skills, and later mathematics achievement of Grade 5 learners. The study concludes that the home plays a crucial role in preparing children for school, and has an impact on their achievement.

#### **Reducing bullying in schools by focusing on school climate and school socio-economic status**

The [paper](#) by **Lolita Winnaar, Fabian Arends and Unathi Beku** aimed to investigate the association between school climate and the prevalence of bullying, and to determine if the school's socio-economic status is associated with bullying. The results show that learners are less likely to be bullied when they feel a sense of belonging to their school, are confident, and are constantly engaged in the classroom.

#### **Bullies, victims and bully-victims in South African schools: Examining the risk factors**

Using self-reported data from Grade 9 learners, this [article](#) by **Andrea Juan, Tia Linda Zuze, Sylvia Hannan, Ashika Govender and Vijay Reddy** examines the extent and nature of bullying in schools located in different and unequal socio-economic contexts. It then examines the risk factors associated with being a victim of bullying. One of the key findings showed that perpetration as a risk factor for victimisation occurred across bullying types.

#### **School leadership and local learning contexts in South Africa**

In this [article](#) by **Tia Linda Zuze and Andrea Juan**, the relationship between leadership and academic achievement in South African secondary schools with varying socio-economic conditions is explored. The analysis revealed distinct relationships between school leadership and management and academic achievement based on the socio-economic status of learners.

#### **I believe I can do science: Self-efficacy and science achievement of Grade 9 students in South Africa**

The authors of this [article](#), **Andrea Juan, Sylvia Hannan and Catherine Namome**, explored the relationship between Grade 9 learners' self-efficacy (self confidence in ability) and their science achievement, as well as home and school factors which contribute to self-efficacy. The findings revealed a positive relationship between self-efficacy and science achievement, and suggest a need to also focus on non-cognitive aspects in order to improve science achievement.

## Interested in using TIMSS data for research?

If you are interested in working with us on publications based on the TIMSS data, please

[contact us.](#)

[www.timss-sa.org.za](http://www.timss-sa.org.za)