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CEA Newsletter

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PIRLS 2021 Field Test Successfully Administered

MESSAGE FROM THE DIRECTOR

Despite an unprecedented year of disruption and uncertainty of pandemic proportions, the CEA can proudly look back on a very busy but successful year. We can look forward to an even more productive 2021, with the administration of the Progress in International Reading Literacy Study (PIRLS) 2021 kicking off, and the continuation of the Western Cape systemic testing project. We hope to collaborate with new partners on the Western Cape systemic data in efforts to ascertain teaching and learning loss due to the Covid 19 lockdown. Meanwhile, our postgraduate Assessment and Quality assurance programmes are flourishing, and while we expect seven more MEd and PhD graduates in the coming year, more prospective students submitted their applications to the Honours, MEd and PhD intake for 2021. The centre's vision continues to be a hub of specialist and expert knowledge in the fields of educational research and assessment. Through the application of assessment evidence, we hope that teaching and learning practices can be enhanced for the benefit of learners, schools and society.

South Africa was one of the few participating Progress in International Reading Literacy Study (PIRLS 2021) countries who successfully administered trials of the achievement booklets and background questionnaires to all sampled schools that were selected for purposes of the PIRLS 2021 field test. Due to the Covid 19 pandemic, many education systems globally were grounded to a halt as early as March 2021 in attempts to curb the spread of the virus. For this reason, PIRLS 2021 achievement booklet and questionnaire field test



Staff members of the CEA, from left: Dr Celeste Combrinck (Lecture/Researcher), Mr Gabriel Mokoena (Fieldwork Manager), Mrs Karen Roux (Researcher/ lecturer), Ms Thembi Matlou (Admin Officer), Mr Mishack Tshele (Data Manager), Ms Taslima Ahmed (Finance Administrator), Dr Surette van Staden (Director).

activities could only happen in a few schools for many of these countries, with plans for follow-up testing as and when possible when national circumstances allowed only later in the year.

The CEA managed to complete the field test of the PIRLS 2021 assessment material in all sampled schools before the national lockdown was announced at the end of March. We successfully submitted our scored and cleaned data to the IEA by end May 2020 for inclusion in the field test report. These results were discussed at the item review meeting in the first week of August to ensure that all achievement material and background questionnaires adhered to reliable and valid standards across countries. The field trial was based on passages submitted by countries interested in the study.

PIRLS 2021 Field Test Successfully Administered... continued

The PIRLS Reading Development Group developed a set of reading comprehension items to accompany each passage that included multiple-choice and constructed-response formats. PIRLS is a study conducted under the auspices of the International Association for the Evaluation of Educational Achievement (IEA), and is managed at an international level by the International Study Center in Boston College. The CEA is a National Research Centre for PIRLS in South Africa and manages the study.



WORLD ENGINEERING EDUCATION FORUM (WEEF)

The validity of international instruments for assessing South African engineering students

Dr Helen Inglis from the EBIT faculty and Dr Celeste Combrinck from the Education faculty presented at the World Engineering Education Forum and the Global Engineering Deans Council (WEEF/GEDC) Virtual Conference. The conference was held from 16 – 19 November 2020. Academics, engineering educators industry leaders, researchers,



Dr Celeste Combrinck

students and governmental organizations attended the virtual conference. Dr Inglis and Dr Combrinck assessed 541 first-year engineering students using the Purdue Spatial Visualization Test-Revised (PSVT: R); the Dweck Mindset Instrument (DMI); and the Short Grit Scale (Grit-S).

They found that Grit and Mindset scores had no relationship with the Engineering drawing marks. But the PSVT:R had moderate and significant relationships with both the practical and theoretical components of Engineering Drawing. The preliminary findings indicate that Grit-S may not be reliable for South African use. The Mindset questionnaire (DMI) may not be contextualized for South African use and requires qualitative investigation and potential revision. The PSVT:R showed moderate predictive validity, which could be strengthened with a more challenging version of the assessment.

The CEA in the media

The value of PIRLS data and its implications for the South African education system was investigated in 2020. In March 2020, Dr. Martin Gustafsson published an article in 'The Conversation' (<https://theconversation.com/new-evidence-supports-the-belief-that-south-africas-education-is-not-all-bad-132280>) that brought the attention to greater trend growth between PIRLS 2011 and PIRLS 2016 than what has been originally reported. Encouragingly, this article points to new evidence that shows education sector growth and improvement in the right direction.

In April 2020, Dr. Surette van Staden published a follow-up piece in 'The Conversation' (<https://theconversation.com/international-study-shows-where-south-africas-education-system-needs-more-help-134448>) that investigated the nature of growth further. In this article, a case is made for the lack of growth in those sectors of the education that are traditionally seen as socio economically disadvantaged. In consequent publications, growth is further qualified in terms of reading skills, where evidence points to Grade 4 learners' inability to engage with reading at higher levels of cognition.

CEA and Western Cape Education Department examined the 2019 systemic testing results

The staff members of the Centre for Evaluation and Assessment (CEA) met with the representatives from Western Cape Education Department, School Development Unit (SDU) and Dark Data on the 10th February 2020 to review the items for the Western Cape Education Department's 2019 provincial systemic testing. These systemic tests are administered annually in the Western Cape Province in Grade 3 across three languages, Afrikaans, English and Isixhosa and in English and Afrikaans in Grade 6 and 9.

A team from the CEA consisted of the project manager, Mrs Karen Roux, Mathematics consultant Mr Hendrik De Kock, Language consultant Ms Joyce West and the CEA's fieldwork manager Mr Gabriel Mokoena. The team participated in the items review discussion at Northlink College in Cape Town where the individual item performance, item difficulty and the Rasch analysis outputs, specifically Differential Item Functioning (DIF) were examined.



Mrs Karen Roux, Mr Hendrik De Kock, Mr Gabriel Mokoena and Ms Joyce West

5TH PIRLS 2021 National Research Coordinators meeting



Mr Mishack Tshele

The Centre for Evaluation and Assessment (CEA)'s Data Manager, Mr Mishack Tshele attended the online National Research Coordinators (NRC) meeting for the Progress in International Reading Literacy Study (PIRLS 2021) which was organised by the International Association for the Evaluation of educational Achievements (IEA) on the 3rd to 5th August 2020. The IEA is an international cooperative of national research institutions, governmental research agencies, scholars, and analysts working to research, understand, and improve education worldwide. Mr Tshele attended the three day meeting along with 140 representatives from participating countries around the world to review and finalise the assessment instruments in preparation for the PIRLS2021 cycle. Six PIRLS passages from the field test were selected by the Reading Development Group (RDG) to be included as new passages in the PIRLS2021 main data collection. These passages comprised of three informational passages and three literary passages. There were also new items that were added on the contextual questionnaires.

The first day of the meeting, which was opened by Executive Director of the IEA, Dr Dirk Hastedt, focused on the progress report, the field test outcomes as well as reviewing the PIRLS literary passages and items. The informational passages and items were reviewed on the second day. The meeting also looked at the new recommended items for the contextual questionnaires. The new items were mostly about the effects of the Covid-19 pandemic. These items were also reviewed and finalised by the end of day 2. The third day was mainly about data management. The program for this day covered sampling, translation, layout and data management systems. The participating countries were requested to schedule an individual consultation meeting with Statistics Canada to finalise the sampling procedure. The translation verification is expected to commence in September 2020 until March 2021. The countries that will be testing late in 2021 can arrange with the IEA to do their verification after March 2021. There is no limit on the number of languages that can be sent for verification. This means that in South Africa, all the languages will go for layout and translation verification.

CEA Staff Member Discusses PIRLS Literacy 2016 Results at NAPTOSA Reading Conference



Mrs Karen Roux

Mrs Karen Roux, researcher at the Centre for Evaluation and Assessment (CEA), was invited to speak at the National Professional Teachers' Organisation of South Africa (NAPTOSA) annual reading conference on the 6th of March. The reading conference was held at the School of Achievement in Germiston. Karen's presentation focused on using results from international large scale assessments and how these could be used to inform teacher practice. It provides evidence of Grade 4 reading levels across 11 languages in South Africa as measured by the Progress in International Reading Literacy Study (PIRLS) Literacy 2016. The examination of benchmark results specifically provides evidence for possible ways these results can be used to improve reading at classroom level. The main aim of the discussion involved how can teachers' practice benefit from evidence provided by international comparative studies.

The PIRLS Literacy 2016 results indicated that 8 out of 10 Grade 4 learners cannot read at the appropriate level which paints a grim picture of primary school reading literacy in South Africa. PIRLS Literacy 2016 was the third cycle of testing in South Africa showing some improvement across the different cycles. Based on the results from PIRLS Literacy 2016 and other national assessments, many government and non-government organisations have invested in reading initiatives at school and classroom level to assist teachers, and ultimately learners to become better readers. Some of these initiatives include the Read to Learn campaign and the Early Grade Reading Study (EGRS).

The 2nd Questionnaire Development Group Meeting for PIRLS 2021

The Director of the Centre for Evaluation and Assessment (CEA), Dr Surette van Staden attended the second Questionnaire Development Group (QDG) meeting on 13 and 14 July for the Progress in International Reading Literacy Study (PIRLS 2021). The aim of the meeting was to finalise the contextual questionnaires that will be used as part of the PIRLS 2021 main survey, a survey in which more than 60 countries participate.

To provide insight into students' contexts for learning across participating countries, contextual questionnaires are administered to Grade 4 learners, their parents, teachers and school principals as part of the PIRLS reading assessment. The QDG consists of an invited group of National Research Coordinators and at the most recent meeting, representatives from Finland, Belgium, Taiwan, New Zealand and Oman joined the PIRLS study directors from Boston College. Due to the Covid-19 pandemic, the meeting took place online and not in person as originally planned in Hamburg, Germany.



Dr. Surette van Staden

Seven dissertations submitted in Assessment and Quality Assurance

A total of seven students submitted their dissertations at the end of September for examination in the field of Assessment and Quality Assurance in Education. Of these seven students, four students completed their dissertations in fulfilment of their PhD degrees.



Karen Roux

Karen Roux submitted a PhD study entitled '*Examining the equivalence of the PIRLS 2016 released texts in South Africa across three languages*'. In her thesis, she conducted a sequential explanatory mixed methods analysis of the PIRLS 2016 data. The aim of her study was to examine the equivalence of the identified released PIRLS Literacy 2016 and PIRLS 2016 assessment instruments in the South African context, specifically the English, Afrikaans and isiZulu texts and items.



Vuyisile Khumalo

In his thesis, '*A resilience perspective of learning mathematics in a disadvantaged environment*', Vuyisile Khumalo explored how protective processes promote mathematical resilience. Through a sequential exploratory mixed methods design located within socio ecological perspective of resilience, the aim was to explore how disadvantaged learners learn mathematics in disadvantaged environment in the Further Education and Training (FET) band.



Prosper Dzifa Dzamesi

In another study, Prosper Dzifa Dzamesi explored mathematics teachers' knowledge, skills and dispositions to implement assessment for learning (AfL) in Ghanaian classrooms. He investigated how different strategies and techniques in the junior high school classroom may optimise pupils' mathematics learning and achievement.



Sello Moyo

Similarly, Sello Moyo conducted a study about Botswana teachers' experiences of formative assessment in Standard 4 Mathematics. The study made use of a sequential embedded mixed design as a methodological strategy to investigate assessment practices related to higher order thinking skills.

Three MEd students also submitted their dissertations at the end of September. Here, topics ranged from Ms. Shani Zeelie's work that focused on teacher professional development and its relationship with reading literacy achievement, Mr. Victor Nkuna's exploration of teachers' use of formative assessment in Senior Phase Geography classes, and Mrs. Blessing Onuora-Oguno's Nigerian study that focused on teachers' reported value and practice of formative assessment in the classroom. While Mrs. Beuny Nkgodi received her MEd degree at a virtual graduation ceremony in April 2020, we hope to see all seven students who submitted in September to cross the stage in April 2021 to receive their well-deserved degrees too!

MEDIA CONVERSATIONS....

The value of mother tongue education

As part of the 2020 Women's Day celebrations, the Suid-Afrikaanse Taalraad (South African Language Board) invited Dr. van Staden to a panel discussion about the value of mother tongue education. During the online symposium, which was held on 7 August, Dr van Staden was asked to reflect on possible reasons for South African children's poor reading literacy performance and the effect of not being taught in mother tongue in the early grades. The talk included views on parental decisions to educate their children in their mother tongue and whether it could possibly aid in improving learner reading achievement. Issues of multilingualism were also explored. A link to the full day's events can be found here: <https://www.youtube.com/embed/918nKmTAzi8>



Dr Surette van Staden

REVIEWING PIRLS 2021 TRANSLATED PASSAGES AT THE DBE

A team of language experts led by Mrs Dikeledi Mathabe from the Department of Basic Education converged at the DBE offices in the Pretoria city centre to review the Progress in International Reading Literacy Study (PIRLS 2021) translations. As part of South Africa's national quality assurance plan, South African translations, managed by the CEA underwent a rigorous review process by language experts representing each of the 10 official languages. The reviewing of these translations included comparing the English versions of the texts with the texts translated into all official languages.



Language experts from the DBE with Mr Gabriel Mokoena from the Centre for Evaluation and Assessment

Reviewers from the DBE provided detailed feedback to ensure the accuracy of the translations. The translators will reconcile the documented changes before the documents are sent to the IEA for translation verification early in January 2021.

Mentoring academics for the future

The CEA's role in the University Capacity Development Programme (UCDP)

Dr Surette van Staden was selected as mentor to a PhD student as part of the University Staff Doctoral Programme. Mentors and mentees are expected to interact over the course of the two year program, either electronically or in person, and will include an exchange of experiences and advice. Mentoring conversations are aimed at coaching through the dissertation process, professional advancement, publishing/funding strategies, and facilitating contacts. Five students are selected from the two South African university partners in disciplines related to community development and/or community education. Each student is paired with a faculty mentor from both a South African and US based university. This project is a collaboration between four universities: University of the Western Cape, University of Pretoria, University of Missouri and Rutgers University-Newark.



RESEARCH OUTPUTS

CEA'S PUBLICATIONS FOR 2019

- Van Staden, S. (2020). Reading Comprehension in Early Childhood: Putting New Evidence of Trend Growth in South Africa into Perspective. In K. S. Adeyemo (ed.), *The Education Systems of Africa*, Global Education Systems. Springer: Switzerland. https://doi.org/10.1007/978-3-030-43042-9_50-1
- Van Staden, S. (2020). Multilinguale Traditionen: Das Beispiel Südafrikas. In I. Gogolin, A. Hansen, S. McMonagle & D. Rauch. *Handbuch Mehrsprachigkeit und Bildung*. Springer VS: Wiesbaden. <https://doi.org/10.1007/978-3-658-20285-9>
- Van Staden, S, Graham, M. & Harvey, J. (In press). An analysis of TIMSS 205 Science reading demands. *Perspectives in Education*.
- Mtsatse, N. & van Staden, S. (Accepted). Exploring Differential Item Functioning on reading achievement: A case for isiXhosa. *South African Journal of African Languages*.