

Enriching lives through Mathematics, Science and Technology Education

By **Phiwokuhle Mandisa Dhlamini**

The Eastern Cape Chapter of the South African Association for Research in Mathematics, Science and Technology Education (SAARMSTE) once again proved to be a vital support structure to postgraduate students in their respective research pursuits in yet another successful colloquium held on Saturday 8 October 2016 at the Rhodes University Education Department.

The presentations delivered at the colloquium challenged researchers to think innovatively on ways to make science subjects more appealing and less intimidating to students. This came after a collective acknowledgement of the fear that most students have in approaching subjects such as physics and chemistry from as early as high school due to the banner of difficulty that is usually associated with them.

An Honour's student at the Department of Chemistry at Rhodes University, Ashleigh Grinham, was inspired by the quest to eliminate this mentality in the approach to science-related subjects. Through her presentation titled *Soap-making: A practical exercise with the Science Extended Studies Students*, she explained that one of her goals whilst working with students in the Extended Studies Unit was to invite their attention to the value that chemistry adds to our everyday lives.

“I wanted to transcend the approach to chemistry as a mere prerequisite to students' courses by encouraging them to view it as more of a tool that enriches lives,” said Ash.



The nature of this colloquium, much like the ones before, was to create a hub of discussion, reflection and much-needed feedback on the different presentations offered by post-graduate students on their current research projects. This is done in preparation for the SAARMSTE conference which will be held in Bloemfontein from 17 to 21 January. However, the aim of the colloquium is also to motivate researchers and encourage input from fellow researchers and supervisors from various institutions in the Eastern Cape. This ensures that they leave with more confidence to improve their projects in preparation for the conference and for the overall quality of their studies.

“This is more of a developmental colloquium where we collectively clarify certain ideas gathered by the researchers and assists them in strengthening their research,” explains SAARMSTE Chairperson, Dr Tulsi Morar.



Dr Morar further alluded to the instrumental role that the colloquium plays in providing a safe space for constructive criticism and feedback, guidance and support from fellow researchers who are able to draw from their non-biased knowledge and experiences gained from working on their projects. He further mentioned that the success of such a space is evident in the increasing numbers of participants who often go on to pursue Doctoral studies, thereby assuming the role of supervisors. These supervisors impart some of the knowledge and share advice and skills that they have been exposed to during the colloquiums.

“The necessity of these colloquiums and the positive results it breeds serves as testament to how the SAARMSTE community is all about contributing to the growth of its participants and gearing them for the next level of leadership,” said Dr Morar.

Post-doctorate researcher in environmental education, Dr Sirkka Tshiningayamwe, whose research focuses on teacher educational programmes and the aspects of teaching methods, described the colloquium as a chance to reflect on the meaningful contribution that researchers make in the educational field. Dr Tshiningayamwe's work is also inspired by her work in Fundisa for Change – is a teacher training programme which focuses on advancing transformative environmental learning.

Dr Tshiningayamwe explained that the success of the colloquium planted in her the desire to too see a co-authored research paper where researchers can combine their respective studies and projects. She believes that this is important in preserving the knowledge shared amongst each other and ensuring that it makes a positive contribution to the world of teaching and research.



Overall, the colloquium proved that mathematics, science and technology are subjects that should not incite fear and intimidation in students. The research studies that were presented offered a glimmer of hope in the future of teachers who will encourage learners to appreciate the change that they can make through the essential skills and knowledge brought about by science, mathematics and technology.