Third annual GeoGebra conference @ NMMU – October 2014:

GeoGebra for Curriculum Support in the 21st Century Mathematics Classroom

A GeoGebra conference, hosted for the third consecutive year by the Govan Mbeki Mathematics Development Unit (GMMDU), NMMU was attended by over 60 delegates, mostly secondary school teachers from various districts in the Eastern Cape and further afield. GeoGebra is open source, dynamic visualisation, mathematics software used to encourage and facilitate teaching and learning of geometry, algebra, graphs, calculus and statistics the world over. GMMDU is one of 145 GeoGebra satellite institutes in 65 countries and only the third in Africa.

Prof Werner Olivier, who chairs NMMU's GeoGebra satellite institute, delivered a plenary lecture on the accessibility and ease of using of GeoGebra in teaching and learning. He said…

Dr Gerrit Stols' plenary focused on using GeoGebra to teach CAPS related higher order reasoning. Stols, a senior lecturer in the Dept of Science, Mathematics and Technology Education at the University of Pretoria, has developed a website for teachers to improve their use of technology in schools (http://school-maths.com). More than 30 000 copies of the manual "GeoGebra4 in a nutshell" were downloaded from the website.

Practical workshops on investigations, demonstrations and conceptualisation using GeoGebra were given by Drs' Boshoff and Collett from the GMMDU and Mr Cecil Heradien from the Department of Education. Presentations by six teachers who form part of the First Rand Foundation (FRF) Chair project on their experiences and use of GeoGebra as a teaching tool concluded the programme.

The annual GeoGebra conference forms part of more comprehensive research and development initiatives linked to the GMMDU and its FRF Chair in Maths Education programmes.

Plenary Speakers

Prof Werner Olivier is currently the FRF Chair in Mathematics Education at NMMU and also heads the Govan Mbeki Mathematics Development Unit (GMMDU) in the Science Faculty of the university. He is a career mathematician and educator who has graduated from UPE with a PhD in Mathematics in 1992 and later headed the Mathematics and Applied Mathematics department at this institution over the period 2002-2010. His interest in the use of technology in mathematics education has resulted in the development of various successful T&L models for in-service mathematics teacher development and learner incubation. These models are currently also being tested and researched as part of the FRF Chair research and development programme which started in 2011. Prof Olivier founded the GeoGebra institute at the NMMU in 2011 and is part of a dedicated team of educators whose aim it is to promote the use of dynamic graphics software in the teaching and learning of mathematics in school classrooms.

Gerrit Stols holds the degrees HED, BSc Hons (North West University), MSc, and PhD (UNISA). He is currently a senior lecturer in the Department of Science, Mathematics and Technology Education, University of Pretoria specialising in mathematical education. He spent time as a visiting scholar or teacher trainer at the University of Georgia in the USA and at Naruto University of Education in Japan. His research interests in mathematics education concern the use of technology in the mathematics classroom as well as mathematical conceptual development. He has published several articles in national and international journals and has presented conference papers and workshops locally and abroad. He has authored and co-authored twenty study guides, textbooks and manuals. More than 30 000 copies of the manuals 'Word 2011 for Maths teachers' and "GeoGebra4 in a Nutshell" were downloaded from his website. He also developed a website for teachers to improve their use of technology in schools (http://school-maths.com).

GeoGebra @ NMMU

dynamic mathematics for tomorrow

GeoGebra Conference
3 - 4 October 2014

PROGRAMME

Nelson Mandela Metropolitan University
Port Elizabeth

THEME

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