## **EduBrief I**





NRF awards top echelon "A" rating to UJ's Prof Anthony Onwuegbuzie **p2** 



Children's reading competence crucial for learning science and mathematics, say UJ's educational experts **p3** 



Faculty of Education dialogue discusses 21st century values and the ethics of coauthorship **p4** 



UJ, MISTRA research project brings mathematics to life **p5** 



SciTechEd: Top Achievers' Event **p7** 



ICT Support Role Methodology students join the Flying Cows of Jozi **p8** 



Translingual Language Practices at university **p9** 

### ANRF awards top echelon "A" rating to UJ's Prof Anthony Onwuegbuzie





The National Research Foundation (NRF) recently awarded a top echelon "A" rating to the University of Johannesburg's (UJ) Prof **Anthony J**Onwuegbuzie, bringing the total number of A-rated researchers to nine at UJ.

Anthony J.
Onwuegbuzie is
Professor in the
Department of
Educational Leadership
at Sam Houston State
University. In addition,
he is Distinguished
Visiting Professor at

the University of Johannesburg and honorary professor at the University of South Africa. He teaches doctoral level courses in qualitative research, quantitative research, and mixed research, as well as teacher education courses and educational psychology courses.

His research areas primarily involve social and behavioral science topics, including disadvantaged and underserved populations such as minorities, children living in war zones, and students with special needs. Also, he has conducted numerous research studies on factors that predict educational achievement at the primary, secondary, and tertiary levels. Prof Onwuegbuzie is passionate about helping to advance the field of mixed methods research (i.e., combining quantitative and qualitative research approaches), writing numerous book chapters, encyclopedia chapters, and articles on this topic across several disciplines. With an h-index of 84, Prof Onwuegbuzie has secured the publication of more than 450 works, including more than 300 journal articles, 50 book chapters, and 5 books, with 4 more books in the pipeline.

Further, Prof Onwuegbuzie has received more than 20 outstanding paper awards, including the Literati Club Award for Excellence 2003, an International Award. Additionally, he has delivered more than 950 presentations and 200 workshops worldwide that include more than 50 keynote addresses across six continents. Prof Onwuegbuzie is former editor of Educational Researcher (ER), being part of the Editor team of Educational Researcher (2006-2010) (alongside Patricia B. Elmore, Gregory Camilli, Marla H.

Mallette, and Julie P. Combs) that secured a first impact factor of 3.774, which was the #1 in Education and Education Research rankings, out of 177 journals. Currently, he is editor-inchief of the International Journal of Multiple Research Approaches and editor of Research in the Schools. Many of his articles have been the most read and cited among articles in their respective journals. For example, his mixed research article published in ER is the third most cited ER article ever, with more than 10,000 citations. Prof Onwueabuzie received an AERA Distinguished Scholar Award from the Stress and Coping Special Interest Group for his contribution to the field of stress and coping. Also, he served as a Distinguished Mentor for the Community of Interest on Mixed Methods Research for Division D. He is immediate past President of the Mixed Methods International Research Association (MMIRA). As a chair/supervisor or methodologist serving on numerous mixed methods doctoral dissertation committees. several of his students have written dissertations that received national or international distinction. Most notably, as the chair/supervisor of Dr. Cindy Benge, her dissertation was first runner-up of AERA Mixed Methods Dissertation of the Year Award in 2013. Most recently, as methodologist of Dr. Shannon Williams, her dissertation was winner of the 2018 MMIRA MAXQDA Dissertation Award. As a person of color with an extensive publication record and, as an active member of AERA, Dr. Onwuegbuzie is in a unique position to pursue his overall goal, which is to be a role model for beginning researchers and students worldwide—especially those who characterize underrepresented populations (e.g., minorities).



### Children's reading competence crucial for learning science and mathematics, say UJ's educational experts.

If children struggle to read they are likely to struggle to learn science and mathematics in primary school when they are expected to work from textbooks, work sheets and technology driven devices.

Harvard Graduate School of Education's **Catherine Snow**, a Distinguished Visiting Professor in the Centre for Education Practice Research at the University of Johannesburg (UJ), discussed the importance of reading competence for learning science and also other school subjects when she delivered a public lecture at the University's Bunting Road Campus in Auckland Park on Tuesday, 13 February 2018. The lecture was entitled, *Improving Literacy by Focusing on Science and Social Studies*.

Prof Snow is a member of the research team led by Prof Elizabeth Henning, who holds the South African Research Chair in *Integrated Studies of Learning Language, Mathematics and Science in the Primary School at UJ.* The research team develop reading tests in which the vocabulary of science and mathematics will feature. The tests will be in English and will use the terminology of the science and maths school curriculum

Prof Henning pointed out that the research community needs to know much more about how the English language is learned and used as a medium of study in school - specifically from grades 4 to 7.

"The majority of our learners at primary school don't speak English at home. They go to school and are confronted with new concepts in mathematics and science in the English language, which may be their second or third language. Therefore, for many children, not only the concepts are new, but also the words and the sentence structure of English. The goal is for learners to understand textbooks, worksheets and apps. Children cannot infer meaning from the text if they do not have some basic vocabulary and some sense of word order and typical phrases in the English language," said Prof Henning.

Prof Snow's work on how oral language skills are acquired and how they relate to literacy outcomes was central to the public lecture.

Photo, from left to right: Prof Elizabeth Henning, the South African Research Chair in Integrated Studies of Learning Language, Mathematics and Science in the Primary School (UJ); Prof Saurabh Sinha, the Deputy Vice-Chancellor: Research & Internationalisation (UJ); Prof Catherine Snow, Harvard Graduate School of Education and Distinguished Visiting Professor, and Prof Sarah Gravett, Dean of the Faculty of Education.

# Faculty of Education dialogue discusses 21st century values and the ethics of co-authorship

The Ali Mazrui Centre and the Department of Education and Curriculum Studies at the University of Johannesburg (UJ) hosted Distinguished Visiting Professors, **Kerry Kennedy** and **Bruce MacFarlane**, at a joint public lecture on Thursday, 22 February 2018, at Auckland Park Kingsway Campus.

Prof Kennedy – an advisor at The Education University of Hong Kong – presented on the "Populism, Fundamentalism and Contentious Politics: Are 21st Century Skills Enough to meet the challenges of our time?" while Prof MacFarlane – a Professor of Higher Education and Head of the School of Education at the University of Bristol, UK – presented his paper on "Exploring the Ethics of co-authorship".

According to Kerry Kennedy, "There has been considerable emphasis in this new century on the development of 21st century skills. Defined in different ways, these are essentially skills for an educated and talented workforce. In this sense they are not unimportant, but they are limited. The challenges facing the world today require more than a skilled workforce: what is needed is a skilled citizenry that values tolerance, social justice, open mindedness empathy and deep respect for others. What is needed are 21st century values."

Prof Kennedy argued that the impact of fundamentalism and populism in creating alienating and toxic local and global environments should not be underestimated.



Professor Kerry Kennedy



**Professor Bruce MacFarlane** 

Prof Kennedy's address highlighted the necessity to support young people in becoming more resilient, more active, more alert and more tolerant as worker-citizens of the future. Prof Kennedy also pointed out that schools, parents, peers and media have a responsibility for helping to provide an educational environment that will contribute to these outcomes. Developing 21st century values is the great challenge for education as this new century progresses.

Other speakers at the event included Prof MacFarlane, who explored the ethics of coauthorship.

Prof MacFarlane said "The allocation of authorship credit in academic publication raises complex ethical issues but is comparatively under-researched, particularly in the social sciences where it is now the norm. Few academics understand the requirements for legitimate authorship on the basis of international guidelines that originated in the biomedical sciences.

Prof MacFarlane explained that intellectual contribution is often overridden by considerations related to hierarchical power and performativity that effectively normalise a gift economy between academics. There is widespread belief in the legitimacy of 'power ordering' (ordering names according to academic hierarchy), and 'gift ordering' (ordering names in response to performative pressures).

His presentation drew on research conducted by the presenter: a survey of academics at universities in Hong Kong (Macfarlane 2017a) and a wider international sample (Macfarlane, et al, 2017b). The findings from these surveys indicates the need for universities to pay more regard to the development and dissemination of institutional policies on co (or multiple) authorship that protect early career academics, in particular.

# UJ, MISTRA research project brings mathematics to life



South African maths pedagogy is our collective responsibility, we must forge a pedagogy of hope. We all have to look honestly at our wounded past. We all have a role to play doing the very hard and long-term work for a transformed South African maths pedagogy; these were some of the sentiments shared at the MISTRA book launch, in partnership with the Faculty of Education at the University of Johannesburg (UJ), on Thursday, 22 February 2018, at Auckland Park Bunting Road Campus.

The Mapungubwe Institute for Strategic Reflection (MISTRA) launched its newest book,

The Pedagogy of Mathematics in South Africa: Is There a Unifying Logic? The book was supported by the Department of Science and Technology (DST) and FirstRand Foundation. The MISTRA book, edited by Paul Webb and Nicky Roberts, has chapter contributions from a range of authors from South Africa and internationally. It investigates how the pedagogy of mathematics has developed in South Africa over time and explores the extent to which it reflects our political and social history. The study also documents current approaches against local and international best practice.

"Nelson Mandela claimed education as a powerful weapon for emancipation but education has been wielded as a weapon for oppression and social exclusion. Mathematics education has been the sharp edge of that weapon," said Prof Nicky Roberts, Deputy Project Leader and Associate Professor at the Centre for Education Practice Research, UJ.

This book on the pedagogy of mathematics goes beyond historical issues to pose crucial questions:

why at all do we teach mathematics? What is the subject's actual utility to life? And is there is a unifying logic informing our South African way of teaching mathematics?

"In seeking to answer these questions, the authors explore some of the best practices in mathematics education, both locally and internationally. They argue for possible methods of nurturing mathematical thinking amongst young people in South Africa" explains Prof Webb, Project Leader and Professor Emeritus, Nelson Mandela University.

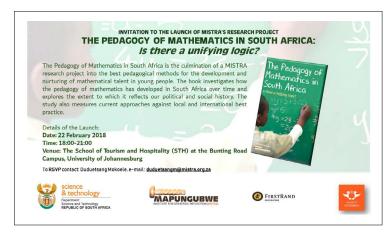
The Pedagogy of Mathematics in South Africa offers an overview of key efforts in mathematics education and improvement in South Africa. It reflects on how South Africa's colonial and apartheid past impacts on current mathematical proficiency in the country, and on social values and beliefs that relate to mathematics education and collates some relevant international case studies of national strategies to improve mathematics education systems. The book also identifies potential, state-level levers for change, which could be adapted for South Africa.

Key issues that emerged was the importance of teaching mathematics in a way that links to learners' concrete social environment, and the necessity for joint efforts on the part of government, unions and private partners. In addition, the study argues for the importance of teachers' developing a deeper understanding of mathematics, and of creating learners with productive mathematical identities, capable of making sense of mathematics in South Africa's diverse languages.

The Pedagogy of Mathematics in South Africa:

Is There A Unifying Logic is an important book for anyone interested in how to accelerate the slow improvements in mathematics that are underway in South Africa.

To order the book, contact Terry Shakinovsky TerryS@mistra.org.za





Some kids experience learning difficulties at primary school level due to social challenges in their communities or households. On a mission to address this predicament, the University of Johannesburg's (UJ) Department of Educational Psychology within the Faculty of Education has launched the UJabule Learning Centre on Wednesday, 28 February 2018 at the Funda UJabule School.

The Centre will provide educational and psychological assessments and interventions to the Funda UJabule Schoolcommunity and the Faculty's partner schools in Soweto. Some learners encounter barriers to learning; these may be caused by multiple socio-cultural and educational challenges which result in poor academic performance. The Centre aims to screen, identify, assess and support such learners.

Says Dr Boitumelo Diale, Head of Department: UJ Educational Psychology: "This launch is the beginning of a new chapter to provide solutions to our young generation. Our kids come from communities with many social challenges and difficulties, and it is our duty as educators and educational psychologists to enable better learning experiences for our children to excel. This initiative is further testament to the Faculty of Education's pursuit to nurture the future of our children."

The launch of the UJabule Learning Centre follows the introduction of a website (referred to as the <u>Knowledge for Action</u> website) to support childhood education. The UJabule Learning Centre, as well as the website is sponsored via a USAID and Elma Foundation grant.



Prof Sarah Gravett, Dean of the Faculty of Educationa and Mr Martin Scholtz, Project Manager UJ/UMP Strengthening Teacher Education Project.



Teachers looking at some of the learning support resources.



#### Head of Department SCITECHED, Prof Umesh Ramnarain

On the evening of 14 March 2018, the Department of Science and Technology Education held their annual top achievers event. Master of ceremonies and organizer of the prestigious event, Prof Geoff Lautenbach, introduced the four nnits that make up SCITECHED, namely the Mathematics Education Unit, the Science Education Unit, the Technology Education Unit and the Learning Technologies Unit. Head of Department, Prof Umesh Ramnarain, expressed the official words of welcome and introduced the guest speaker, Distinguished Visiting Professor Hsin-Kai Wu.

The first eight awards of the evening were in the undergraduate category and included the best BEd student in Science Education Mr Khetha Xolani Makhunga; the best Senior Phase & FET student in Mathematics Education Ms Janneli Bresler; the best BEd ICT Support Role student over 2 years Mr Nkululeko Gabriel Motsweni; the best 3rd year BEd student in Natural Sciences Methodology Ms Mbali Hadebe; the best 4th year BEd students in Mathematics Methodology (shared by two students) Mr Linden Ulysses Meyers and Ms Janneli Bresler; the best 4th year BEd student in Life Sciences Methodology Ms Lezaan Jordaan; the Best 4th year BEd student in Physical Sciences Methodology Ms Lezaan Jordaan; and lastly the best 4th year BEd student in ICT Support Methodology Ms Chanica Gibhard.

In the postgraduate category "best achiever in a PGCE methodology", Mr Kefentse Tlapi walked away with two awards for best PGCE student in Senior Phase Technology Methodology and best PGCE student in FET Technology Methodology. The student who received the award for best PGCE student in Senior Phase Mathematics Methodology was Mr Ivan Marais who also received the award for Best PGCE student in FET Mathematics Methodology. The best PGCE student in Senior Phase Natural Sciences Methodology was Ms Dikeledi Rakoma. The best PGCE student in FET Life Sciences Methodology was Mrs Naeema Bulbulia and finally Ms Grace Nkabinde was awarded the certificate for best PGCE student in FET Physical Sciences Methodology.

#### Master of Ceremonies, Prof Geoff Lautenbach

In the Honours category Ms Pearl Langa received the accolades for being the Best BEd Honours student in ICT Education. The Science Education award went to Ms Gloria Makumu with the Mathematics Education award going to Ms Eunene Pienaar.

Two awards were made in the Master's category. Best full dissertation Master's graduate in Science Education went to Ms Jannike Van Biljon with the equivalent award in ICT in Education going to Ms Christine Zeelie.

The last three awards of the evening were made to recognise persons who have attained the ultimate academic achievement in an area of speciality offered by this department, namely a doctoral degree. Interestingly, all three PhD candidates from 2017 came from the Science Education Unit. Congratulations once again to our new "Doctors", namely, Dr Tony Antoniou, Dr Christiaan Visser and Dr Grizelda van Wyk.

The Executive Dean of the Faculty of Education, Prof Sarah Gravett, briefly reflected on the proceedings of the night and Prof Lautenbach closed proceedings with an invitation to continue the celebrations in the function room with SCITECHED staff, friends and family. We as a department already look forward to sharing in the success of the 2018 cohort. We have high expectations but we know that we can expect only the best from all students. See you at the 2019 celebrations!



The deserving award winners



The Learning Technologies Unit has made many great connections along the way and one of our dearest and most hard-working friends is Ms Josine Overdevest who has collaborated on a few of our projects in the past. With new initiatives that relate directly to our field, we continue to keep in contact with her and are extremely grateful to her for providing opportunities to our students. Her web site at www.flyingcowsofjozi.co.za describes Ms Overdevest as follows:

"With 25+ years' experience in the ICT industry, and over 15 years in South Africa, Josine Overdevest works as a consultant and entrepreneur in the digital development space, following her passion for inclusion and development of people, organisations and the ever-changing society we live in. Through her company Bamboo Rock Josine develops and executes projects across the digital divide, strategy and implementation, people and technology, private and public, business and social, the familiar and the unfamiliar. Josine is excited about the potential of digital solutions and digital skills development in the education sector and loves being involved with projects for student and teacher development. Through these projects she learned that companies are often hesitant to engage interns and entrylevel employees, contributing to the gap between education and employment. This has led to the establishment of the Fluina Cows of Jozi division. which engages students and graduates in internships and entry-level employment both in the execution of Bamboo Rock projects as well as in placements with Bamboo Rock's clients and partners where Flying Cows of Jozi takes responsibility for the recruitment, mentoring and induction into the workplace."

15 May 2018 – The Vodacom DBE centre managers workshop at the Protea Hotel at O.R. Tambo airport saw the successful launch of the Flying Cows of Jozi where a team of energetic, talented fourth year ICT support role students assisted 92 managers who run the Vodacom supported Department of Basic Education (DBE) District Teacher Development Centres (DTDCs) nationwide. (See http://digitalclassroom. co.za/digitalclassroom/centres ). These centre managers came together at O.R. Tambo to be updated on topics like the DBE Professional Development Framework for Digital Learning and the Vodacom Social Innovation portfolio. In interactive break-away sessions the centre managers learned how to integrate the digital tools that are available in the DTDCs in teaching & learning. The tools presented include E-Beam, the DBE Moodle platform and Skype. The workshop concluded with the centre managers listing goals and action points to take the learning from the workshop back to their centres

The Flying Cows of Jozi supported the centre managers in the sessions and also presented fun digital recap and evaluation tools. The interactions between the experienced education professionals and the digitally skilled students proved to be insightful and motivating for everyone. Positive energy sparked!

Our Flying Cows of Jozi on this project are 4th year & Honours students from the University of Johannesburg Faculty of Education who specialise in ICT in Education. Working on Flying Cows of Jozi projects, the students earn a fair hourly rate which contributes to their study and living expenses. In addition to on-the-job mentoring, Flying Cows of Jozi offers personal development: building confidence and a sense of personal agency to empower these young people to step forward into an exciting career in the digital economy.

# Translingual Language Practices at university





**Prof Andrea Parmegiani** 

Prof Leila Kajee, Dept of Education and Curriculum Studies was pleased to host Andrea Parmegiani in February 2018. Prof Parmegiani is Associate Professor of English and ESL at Bronx Community College of the City University of New York. He presented a seminar on Translingual Language Practices at university. The audience engaged in discussion around parallels between the language practices of additional language speakers in the Bronx and South Africa. Parmigiani's current research interests focus on the use of ESL students' mother tongue as a resource for English language and academic literacy acquisition. To increase success indicators among Hispanics at Bronx Community College, he created a link between ESL and Spanish composition courses. His forthcoming book Using ESL Students' First Language to Promote English Acquisition and College Success, which is based on a case study of the Spanish-ESL link, is scheduled to be published by Routledge in 2018.

### **Editorial**

In this issue of EduBrief the Faculty is once again presented as making significant progress in terms of research, publications, and local and international community engagements.

The work that is being done in the field of Mathematics education, and the publication of a book in this field, *The Pedagogy of Mathematics in South Africa:* Is *There a Unifying Logic?*, has great significance. South African society is regularly presented in the mainstream media as lacking in mathematics ability, and the work done by colleagues in this field will make a much needed difference.

Several of the articles refer to our international connections, and international visitors. It is clear that many colleagues have developed relationships with international academics of significant stature. This is particularly reflected in the NRF rating granted to Prof Anthony Onwuegbuzie; in achieving an A-rating, Prof Onwuegbuzie brings kudos to the Faculty. His list of publications, achievements, and public engagements make this rating a well-earned accolade.

Other international visitors spoke on matters relating to academic publishing, the values that are needed in 21st Century education, the issue of language in the learning of science and mathematics, and the issue of translanguaging in tertiary institutions. These matters are all of value for the Faculty.

The Faculty of Education deal with many topics, and one of these is the issue of barriers to learning. The UJabule Learning Centre, launched on the Soweto Campus, is a centre that will make a difference in the lives of many children.

It is not often that an editor addresses the topic of Flying Cows, but this time it is my turn. The name of the organisation is eye-catching, and the work done by these intrepid individuals and groups of students is something to acknowledge. They are making a palpable difference in our society.

The awards ceremony that acknowledged the students of the SciTechEd Department is an event to note. The celebration of student achievements is important, because it is these people who will contribute in the future. Congratulations to the outstanding achievers listed in the article.

The University and the Faculty of Education community was saddened after learning about the passing of Professor Brenda Leibowitz on Thursday, 26 April 2018. As the Chair in Teaching and Learning, within the Faculty of Education, Prof Leibowitz had many achievements and her most recent legacy is the SoTL project, aimed at encouraging dialogue, reflection and research on the subject of teaching for and with social justice.

I trust that the reading of this edition of EduBrief will be of interest and enjoyable for the readers.