

8TH ANNUAL CELEBRATING HEALTH SCIENCES EDUCATION CONFERENCE 2016



4 AUGUST 2016

**WOLFSON PAVILION LT
(PG SEMINAR ROOM 1 & MAC CLUB)**



Welcome

Welcome to our 8th Annual Research day dedicated to growing Health Sciences Education Research. Thank you for participating in our annual event which is focussed on research and scholarship as a cornerstone of an emerging academic discipline of Health Sciences Education. This research day provides an opportunity for researchers, educators, clinicians, technical and support staff, students, policy makers, leaders and managers to inspire new thinking on issues of curriculum in our current context. The workshops and presentations focus on a range of curriculum issues including diversity, counterhegemonic practices, ethics in education research, innovations in teaching, learning and assessment practices and methodologies, interprofessional education, research teaching and academic support across disciplines. We look forward to energising debate and dialogue as we continue to strengthen our knowledge base and practice in Health Sciences Education through collective engagement.

Regards

Harsha Kathard: Interim Head: Department of Health Sciences Education
Professor: Communication Sciences and Disorders

Sponsors



Organising Committee

A/Prof Francois Cilliers (Chair)
Mr Gregory Doyle
Dr Chivaugn Gordon
Ms Claudia Joseph
Dr Natasha Muna

Programme

08:00 - 08:30	TEA & REGISTRATION (Wolfson Pavilion)	
08:30 - 08:45	OPENING & WELCOME (Wolfson Pavilion LT)	
08:45 - 09:15	Keynote Address: Deputy Dean for Health Services: Dr Reno Morar 'True Confessions of a Bourgeois Baby'	
09:15 - 09:30	QUESTIONS & DISCUSSION	
09:30 - 09:50	Busayo Ige <i>Mitigating Language Related Anxiety in Linguistically Diverse classroom</i>	
09:50 - 10:10	Matumo Ramafikeng <i>Translanguaging as a strategy for supporting learning among Occupational Therapy students that have English as an additional language</i>	
10:10 - 10:30	Sarah Crawford-Browne, Steve Reid, James Irlam, Carla Tsampiras & Ishaq Datay <i>Countering hegemony: teaching Health for All at a medical school</i>	
10:30 - 10:50	TEA (Wolfson Pavilion)	
	VENUE: Mac Club	Venue: PG Seminar Room 1
10:50 - 11:10	Lori Lake <i>Child rights and advocacy: Using Vula to promote shared learning and enhance professional practice</i>	Jason Marcus <i>Will a training day in essential obstetrics skills deliver for final year medical students?</i>
11:10 - 11:30	Steve Reid, Deli Amosun, Hoffie Conradie & Danny Daniels-Felix <i>The impact of undergraduate students on district health services delivery</i>	Amaal Abrahams & Lunelle Pienaar <i>A peer-led approach to enhancing the success of first year physiotherapy and occupational therapy students in Anatomy and Physiology.</i>
11:30 - 11:50	Minette Coetzee, Natasha North & Stephanie Sieberhagen <i>Building a sustainable paediatric nursing workforce for Africa, in Africa: developing contextually aligned training programmes in Malawi and South Africa</i>	Marvin Jansen, Rachel Weiss & Heike Geduld <i>A qualitative study on 6th year medical students' perceptions of and self-reported competence in clinical practice after receiving Resuscitation-Based Simulation training</i>
11:50 - 12:10	Jean Baptiste Sagahutu, Jennifer Jelsma, Francois Cilliers & Jeanne Kagwiza <i>The use of the International Classification of Functioning, Disability and Health (ICF) in improving knowledge and attitudes regarding interprofessional practice</i>	James Irlam <i>On being agents of change: an update on the elective experiences of medical students at the UCT Faculty of Health Sciences</i>
12:10 - 12:30	Wynand Smythe, Delva Shamley & Lesley Workman <i>Clinical research training: meeting the MMED challenge</i>	Ikechukwu Nwanze, Harsha Kathard & Chioma Ohajunwa <i>How can we include disability issues into undergraduate curriculum at UCT</i>

	VENUE: Mac Club	Venue: PG Seminar Room 1
12:30 - 12:50	Gill Morgan, Tamzyn Suliaman, Namhla Madini, Dilshaad Brey & Mary Shelton <i>The evolving role of the health sciences librarian as teacher - developing an information literate student while meeting the diverse information needs of faculty</i>	Rory Liesegang <i>IT solutions within the blended learning space and its challenges in LMICs</i>
12:50 - 13:10	Marsha Orgill, Nonhlanhla Nxumalo & Lucy Gilson <i>Innovative practice: Building leadership capabilities for research and teaching</i>	Lorna Olckers <i>Celebrating the introduction of a Faculty 'Book of the Year'</i>
13:10 - 13:50	LUNCH (Wolfson Pavilion)	
13:50 - 14:10	Gillian Ferguson <i>A proposal: Using the Flipped Classroom Approach in Physiotherapy</i>	Graham Louw & Geney Gunston <i>The impact of preparation for dissection, as assessed through drawings: a pilot study</i>
14:10 - 14:30	Charle Viljoen, Rob Scott Millar, Ashley Chin, Mpiko Ntsekhe & Rachel Weiss <i>ECG ONLINE: providing web-based opportunities for ECG learning</i>	Jaisubash Jayakumar <i>Innovative Strategies for Enhanced Learning of Immunology</i>
14:30 - 14:50	Michael Held, Maritz Laubscher & Robert Dunn <i>UCTeach Orthopaedics - using technology to increase our teaching footprint</i>	Taahira Goolam Hoosen, Mariam Karjiker, Lunelle Pienaar, Elmi Badenhorst & S Abrahams <i>Transformative teaching and learning opportunities: A collaborative initiative between the Residence Sector and the Faculty of Health Sciences</i>
14:50 - 15:00	COMFORT BREAK	
15:00 - 15:20	Stephanie Sieberhagen, Natasha North & Minette Coetzee <i>Development of a student nurse support programme - NursingWell</i>	Mariam Karjiker <i>Towards Relationship Intelligence</i>
15:20 - 15:40	Heike Geduld, Wayne Smith & Lee Wallis <i>Emergency Medicine Systems Engineers Project: Building empowered accountable Emergency Medicine Specialists</i>	Sumaya Gabriels & Anthea Brinkman <i>Navigating the academic challenges posed by first year students. Lessons learned from Department of Health and Rehabilitation in the Intervention Programme and the Higher Certificate in Disability Practice.</i>
15:40 - 16:00	Nailah Conrad, T Mutsvangwa, A Doyle & T Douglas <i>User-Centred Design as used in Health Innovation and Design: Addressing Hearing Loss In The Elderly</i>	Rowan Duys & Ross Hofmeyr <i>Creating and using a departmental online learning environment. The journey of the Department of Anaesthesia and Perioperative Medicine</i>
16:00 - 16:30	CLOSING – DISCUSSION, PRIZE GIVING & THANKS (MAC Club)	

Abstracts

Amaal Abrahams & Lunelle Pienaar

A peer-led approach to enhancing the success of first year physiotherapy and occupational therapy students in Anatomy and Physiology.

Students in physiotherapy and occupational therapy are taught anatomy and physiology in 1st year as an important underpinning of their future professions. Within anatomy and physiology students are expected to consume a vast amount of knowledge in a relative short space of time. Importantly at 1st year level we assume that students have the prerequisite foundational knowledge developed in school to build upon. Given the variation in the South African schooling system we challenge this assumption as a number of students struggle to grasp important concepts within anatomy and physiology and eventually fail the course. Therefore, we are attempting to identify students who are at risk of failing the course and/or enter an extended degree programme.

Approach:

136 students in the first year Anatomy and Physiology course participated in an online assessment designed to measure their foundational knowledge of life sciences at the start of their academic year. Based on the results of the assessment, students at risk were encouraged to participate in peer-led tutorials. Senior students in physiotherapy and occupational therapy (3rd and 4th year) and postgraduate students in Anatomy and/or Physiology were selected as peer facilitators. The content for the tutorials were aligned with the course material and specific emphasis was placed on concepts past students found challenging.

Results and Discussion:

At the end of semester one data from student and facilitator evaluations and focus group discussions will be analysed to determine their perceptions of the peer-led tutorials. Moreover, statistical analysis will be performed to determine an association between improved performance and participation in the tutorials. Taken together, we propose student's participating in the tutorials should display an improvement in their conceptual understanding of anatomy and physiology. Similarly, it is anticipated that senior students acting as facilitators will reinforce their own learning through instruction.

Minette Coetzee, Natasha North & Stephanie Sieberhagen

Building a sustainable paediatric nursing workforce for Africa, in Africa: developing contextually aligned training programmes in Malawi and South Africa

Educating paediatric nurses is key to reducing the high level of infant and child mortality in lower resourced nations. The new Sustainable Development Goals commit member states to increase recruitment and training of the health workforce.

A programme to establish sustainable, region-appropriate child health nurse training was conducted using Community Based Participatory Action Research methodology by educators the Child Nurse Practice Development Initiative in the Department of Paediatrics and Child Health, University of Cape Town, and from three centres in Blantyre, Malawi; Kamuzu College of Nursing and the Department of Paediatrics at the University of Malawi and the Queen Elizabeth Central Hospital. A process of stakeholder engagement, policy analysis and participative curriculum design was followed to enable alignment of the new programmes with national health and educational policies and needs.

The study led to the development of a comprehensive paediatric nurse training programme in Malawi and the refinement of existing training programmes in South Africa. Twenty-eight specialist nurses have graduated since 2010 and are back in Malawi in clinical positions in child health services and nursing education. The study also resulted in the articulation of a six-step model of contextual training alignment, bringing together health and education sectors nationally to co-design in-country training of nurses.

To be sustained, training interventions must match the characteristics, context and priorities of the health care system in which they are being implemented. The experience of this programme offers insights into best practice in nursing education pertinent not only to lower resourced nations, but to nurse educators globally who may partner with them, or who are interested in understanding how education and health policy contexts shape the sustainability of nurse training programmes.

Nailah Conrad, T Mutsvangwa, A Doyle & T Douglas

User-Centred Design as used in Health Innovation and Design: Addressing Hearing Loss in The Elderly

Health Innovation and Design (HID) aims to integrate the teaching of innovative thinking, and an appreciation of context in designing appropriate technology, into the curriculum. HID has been implemented as a holistic user-centered approach to addressing complex health concerns. We present a case study on module implementation, observations and outcomes, with an application to hearing loss in the elderly and the development of solutions to improve the quality of life of residents at the Neighbourhood Old Age Home (NOAH) in Cape Town. Student participants were required to immerse themselves in the context of the elderly, interacting with various stakeholders, in an iterative and reciprocal innovation and design process using the the Phillips Cocreate four-stage design process. Semi-structured interviews were used by the students to gather in-depth information. The key lessons learnt by students were ones that they did not expect. They became aware of their own biases and assumptions and the need to challenge and address these. They learnt to conduct interviews with empathy. They learnt to present their argument effectively by targeting the audience and not just offering a polished professional presentation suitable for their peers. For some it was their first opportunity to work in a multidisciplinary team. And finally, they developed a greater sensitivity to the social context of the problem. Students initially did not fully embrace the design thinking approach as they were unsure of its value. They wanted to offer solutions as soon as they had some information about the problem, instead of first spending time on defining the problem and identifying all relevant stakeholders. Only once they received feedback from various stakeholders did they truly appreciate the steps involved in the design thinking process. The case of hearing loss in the elderly was significant both as an iterative process for participants developing solutions to enhance the quality of life of the elderly, and in assessing curriculum implementation.

Sarah Crawford-Browne, Steve Reid, James Irlam, Carla Tsampiras & Ishaq Datay

Countering hegemony: teaching Health for All at a medical school

In 1994 our faculty declared its commitment to social justice and transformation with the intention to transition from a medical school to a Faculty of Health Sciences. The Primary Health Care Approach – Health for All – was adopted as the lead theme for teaching, research and social responsiveness. The Primary Health Care Directorate’s small team of academics have infused the MBChB curriculum with creative techniques to hold this golden thread through the curriculum, yet twenty-two years later sixth year MBChB students are generally unable to discuss the PHC principles. Many colleagues continue to elide the Primary Health Care Approach with primary care. In this presentation the PHCD team reflects on its recent academic review, the infused teaching approach and possible strategies, as we grapple with the question “is it possible to have influence within the hidden biomedical curriculum?”

Rowan Duys & Ross Hofmeyr

Creating and using a departmental online learning environment. The journey of the Department of Anaesthesia and Perioperative Medicine

The relatively poor level of training of healthcare personnel in the developing world is perhaps the most important problem to be solved to raise the standard of healthcare and patient outcomes. While there are pockets of excellent training within the spheres of influence of the various training institutes in South Africa, there is a sharp decline in access to this training as one moves further from the urban centres. The roll out of broadband internet access and penetration of mobile phone ownership gives the present day educator and learner unique opportunities to improve learning experiences and the reach of institutes looking to train undergraduates and post-graduates beyond their walls and borders. The Department of Anaesthesia and Perioperative Medicine, UCT, has engaged in a deliberate programme to create online content and a learning environment in order to exploit these opportunities. The express intention is to improve our internal training activities for undergraduates and post-graduates, but also to create online resources that can be used as we expand our training programmes to other institutes with which we have partnered, both within our country and elsewhere in Africa. To this end, we have partnered with Appenberg Digital Publishing, a development house within UCT, to create a Moodle-based learning environment and module on Fluids and Haemodynamics. The Perioperative Pain Management module is in development and an Energy Balance module is planned for October. Further, we have begun recording and webcasting our lecture programme and will begin integrating these links into our online learning environment. We present our journey, difficulties faced and successes achieved, and a model for other departments or content experts looking for opportunities with which to exploit the growing opportunities of the digital age in medical education.

Gillian Ferguson

A proposal: Using the Flipped Classroom Approach in Physiotherapy

Background and problem:

Prompted by increasing student numbers, student passivity and the need to embed primary health care (PHC), human rights and ethics philosophy into teaching, I present my intention to change my current teaching practice in a 300-level module on adult neurorehabilitation for physiotherapy students. The current and predominant teaching styles used within this module include oral presentation and small group discussion. Supported by evidence advocating the use of blended learning, I discuss why and how I will incorporate the flipped classroom (FC) approach and explain how I plan to use the university e-learning platform, VULA to support the new style of teaching.

Plan:

The FC approach uses a blended learning format, where the online component is used to teach the basic concepts. The content in this section will include narrated PowerPoint presentations, video clips and various readings and will be delivered using the lessons application within the VULA platform. This entails a structured, time-based delivery framework linking relevant learning activities with the appropriate resources. Activities to support the face-to-face sessions will include small group discussion, case-based problem solving, role plays and creating artefacts. Importantly, principles of PHC, ethics and human rights will be embedded in both the online and face-to face lesson.

Evaluation:

The module will be evaluated using a specially designed course evaluation where students will give feedback on the following broad areas; presentation of content, clarity of expectations, instructor helpfulness, and feedback on performance and application of theory to practice. It may also be helpful to compare class average performance in tests over time. The FC approach appears to satisfy the requirements for deep,

active learning and is aligned with Constructivism theory. Whether this model is acceptable to students remains to be evaluated. In addition, it would be useful to explore the costs associated with this model.

Sumaya Gabriels & Anthea Brinkman

Navigating the academic challenges posed by first year students. Lessons learned from Department of Health and Rehabilitation in the Intervention Programme and the Higher Certificate in Disability Practice.

Through our years of working in the Department of Health and Rehabilitation's Intervention Programme and now recently the Higher certificate in Disability Practice (HCDP) it is clear that many students who enter IP or enroll for the HCDP are under-prepared for the demands of tertiary level education. In addition to the academic challenges many face social and economic challenges making navigating this academic arena even more difficult. This combination of academic and socio-economic trials poses unique challenges for us as academics as it demands a shift in the order of the business of the day. The challenges remain ongoing. Even though these two groups of students are on different levels conceptually there are areas of commonality in challenges they face. They have difficulty with tasks such as reading for comprehension, writing and meaningful note taking. There are challenges in conceptual understanding and articulation thereof which translate into difficulty in conventional written assessments.

What was tried?

Teaching and Learning:

- Creatively Scaffold learning
- Taking on a facilitator role instead of a didactic teacher role
- Creating a safe space for students to feel comfortable asking questions and check conceptual understanding
- Allowing students to engage with concepts in their own language
- Active engagement through question and answer sessions checking student's conceptual understanding
- Note taking and concept mapping
- Practical Application of concepts and experiential learning opportunities

Assessment:

More intentional alignment of teaching and learning methodologies with assessment practices. More practical examinations and tests so that students who struggle with English as first language are not unfairly disadvantaged.

What happened/ What lessons were learned?

- Students value a safe space and appreciate having an approachable lecturer. This has been found to be more conducive to learning.
- Constantly checking assumptions about what you think students know or should know
- Finding multiple ways of getting students to engage with the work
- Enhanced learning from peer learning
- Insight into conceptual understanding through allowing the use of students' mother language
- Experiential learning consolidated and reinforced theoretical learning

Heike Geduld, Wayne Smith & Lee Wallis

Emergency Medicine Systems Engineers Project: Building empowered accountable Emergency Medicine Specialists

Background:

The Western Cape Department of Health has been clear about the budget deficit and the effects these are likely to have on healthcare service delivery in the province. These cost-cutting measures are felt acutely in

the Emergency Units. In order to train Emergency Medicine Specialists who are aware of the challenges to efficiency and rational clinical practice, the Division of Emergency Medicine instituted a group project to empower Registrars to make changes in the hospitals they are working.

Method:

The Division created an 8-week challenge called the Emergency Medicine Systems Engineers Project. Registrars were briefed about the rationale for provincial cost-cutting and some strategic target areas. They were assigned to groups by site of practice (9 sites) and were asked to identify potential areas for increasing efficiency or rationalizing practice. They were then to engage local partners, develop and pilot an intervention.

Outcome:

Each group presented a project summary detailing their processes and outcomes. Faculty and representatives of the PCC (Provincial Cost-cutting Committee) scored the projects on rationale, activity and outcome. Projects mostly targeted costs related to laboratory investigations, documentation and blood utilization and ranged from cost-analyses to NHLS gate-keeping strategies to Posters and educational interventions.

Lessons learned:

Registrars expressed satisfaction that they were given responsibility to make management changes. There was frustration over the difficulties in getting relevant clinical or cost data, getting buy-in from consultants and resistance of staff to change. Registrars also complained about the lack of group participation and anxiety over expectations attached to the project. Most felt that they gained knowledge including change management, implementation science and cost-analyses; from the projects.

Michael Held, Maritz Laubscher & Robert Dunn

UCTeach Orthopaedics - using technology to increase our teaching footprint

What problem was addressed?

Faster data connections are more readily available than before. More students have access to computers and smartphones and electronic communication is used frequently. At the same time, we are hampered by great distances between training centres in South Africa. The Department of Orthopaedics at UCT have attempted to embrace these technologies to improve our under- and postgraduate training, as well as reach out to other remote training centres.

What was tried?

Undergraduates

- UCTeach Ortho YouTube channel: 'Student to student' teaching. 5th year students rotating in orthopaedics are assigned topics to make videos on. These include examinations, approaches and treatment techniques. These videos are moderated and published on a YouTube channel for other students to view and learn.

Postgraduates

- 'Streaming out:' We run weekly registrar tutorials, covering the whole orthopaedic syllabus. We started 'streaming' these tutorials live, allowing other training centres to join our tutorials (and even our own registrars when on call and unable to attend...). Current access includes from Port Elizabeth, East-London, Bloemfontein and our neighbouring countries Namibia, Zimbabwe and even Kenya!
- 'Streaming in:' During our Orthopaedic Research Unit (ORU) Research Day we 'stream in' live lectures, research proposals and pitches from overseas units. This exposes our postgraduates to international experts and open the door for international collaborations.

What happened?

We have received very positive feedback from these projects both from students, teachers, and the University. It has improved the quality of our lectures and tutorials as well as the relevance of the lectures immensely.

What lessons we learned?

Short videos work better (we have an average viewing time of 2.3min). 'How to' videos and techniques work best. Active student participation has been the key to success.

Taahira Goolam Hoosen, Mariam Karjiker, Lunelle Pienaar, Elmi Badenhorst & S Abrahams

Transformative teaching and learning opportunities: A collaborative initiative between the Residence Sector and the Faculty of Health Sciences

Currently there is an estimated 6600 students housed within the residence system at UCT. These residences which differ in architecture hold unique opportunities for teaching & learning for students that reside in them, termed 'Living & Learning Spaces'. Over the years the Dept. of Student Housing (Residence Life Division) has taken this opportunity to bridge the gap between the Faculty and Residence Sector by developing and implementing several of these Living & Learning Programmes within the residences of both undergraduate and postgraduate students. During the year programmes that had been co-conceptualized in collaboration with multiple faculty staff and stakeholders was piloted. Some of these included the Biosciences White Board Workshops and the exciting TIPS (transition into postgraduate studies) programme to assist undergraduates as they transition into postgraduate life by improving their foundational skill set. In addition, the popular Towards Relationship Intelligence Workshops which had been piloted in 2015 had continued this year. It was found that programmes not only contributed to students' academic success but to their academic well-being. This was made possible through the socialisation and fostering of academic learning in the living spaces for Health Sciences students. There are however areas for improvement that include increased awareness for additional programmes and increased connections and support from Faculty staff and stakeholders alike. This collaborative initiative presents as a promising academic opportunity towards transformative teaching and learning within the Residence Sector and the Faculty of Health Sciences

Busayo Ige

Mitigating Language Related Anxiety in Linguistically Diverse classroom

Context

Although significant gains have been made in efforts geared towards identifying and addressing challenges that confronts the so called 'non-traditional' students in higher education in South Africa. A number of them, mainly African first language speakers, are still not coping with the requirements of their academic studies. Language as a tool plays a pivotal role in student learning. In my ongoing interaction with IP and EX -IP students in the Dept. of Health and Rehabilitation Sciences, I have observed that communicative apprehension prevents students from full and active participation in classroom activities and negatively impact their learning. This study seeks to provide insights into the nature of language anxiety in second language academic communities.

Objectives

Identify and examine students' perceptions of the nature of language anxiety, its impact and their coping strategies

Methods

The study uses qualitative explorative case study that draw on interviews with 12 ex- Intervention Programme students who had experienced language related learning anxiety. Given that a single programme, like the Intervention Programme (IP) is in itself a multiple case studies.

Results

The result from this study shows that language related learning anxiety is multidimensional. The factors that contributed to the language anxiety included linguistics and sociocultural factors. The result also show that language anxiety is wide spread across programmes and levels of studies, and although avoidance was the most common strategy students used to reduce anxiety, others include enlisting friends to act as intermediaries.

Conclusion

The affective environment of a classroom can affect learning to such a degree that requires lecturers to take an active role in reducing the language related anxiety that second language speaking students often experience in mainstream classrooms.

James Irlam

On being agents of change: an update on the elective experiences of medical students at the UCT Faculty of Health Sciences

Student electives during the 5th year of the University of Cape Town (UCT) medical curriculum from 2006-2014 required a four-week work experience in the health system. In 2014 focus group discussions with thirteen 5th-year students were undertaken to better understand how 5th-year medical elective students perceived themselves as agents of change. The study supported the hypothesis that the more choice students have over their learning, the greater is their sense of agency. The electives were appreciated as opportunities to develop clinical skills and competencies and to better understand the role of future doctors within the health team and health system. In 2016 the year 5 elective was replaced by separate two-week and 4-week electives in the year 6 curriculum. This presentation will review the 2016 elective experiences of year 6 students.

Marvin Jansen, Rachel Weiss & Heike Geduld

A qualitative study on 6th year medical students' perceptions of and self-reported competence in clinical practice after receiving Resuscitation-Based Simulation training

Aim:

The aim of the study is to explore 6th year medical students' perceptions and self-reported competence for clinical practice after receiving Resuscitation-Based Simulation training.

Methods:

During this research project three focus group interviews were conducted with sixth year MBChB students at the University of Cape Town (UCT) Clinical Simulation Centre. The interviews were audio-recorded, transcribed and analysed using a Grounded Theory approach.

Findings:

Analysis of the data identified several common themes. Final year medical students perceive that resuscitation-based simulation training is valuable in that it provides a safe non-threatening environment in which to learn, the foundational 'hands-on' knowledge necessary for resuscitation, and opportunities to receive feedback on their learning. They also expressed that Resuscitation-based simulation training increased their confidence to participate in resuscitation during clinical practice, and improved their

technique. However, the final year medical students have a reluctance to lead during resuscitations in the clinical environment, and expressed a need for more exposure to resuscitation both in the simulation training and the clinical setting.

Conclusions:

Final year medical students' feedback regarding their experience of the resuscitation based simulation training programme at the University of Cape Town provided valuable insight into current strengths and gaps. This feedback is useful for developing the simulation programme to be more aligned both to students' needs and the clinical reality, in order to prepare them for managing resuscitations in the clinical environment.

Jaisubash Jayakumar

Innovative Strategies for Enhanced Learning of Immunology

Undergraduate medical curricula around the world have incorporated the discipline of immunology aiming at the effective application of immunology in clinical practice. The medical students often perceive immunology as quite complex, hence developing negative perceptions towards the discipline. These negative attitudes create a barrier for their learning preventing them to effectively understand and apply the learnt concepts and principles successfully in their clinical years. Scanty evidence prevails on the innovative strategies and tools for enhanced teaching and learning of immunology.

Educational Context and Issue

Immunology is taught within the case-based integrated courses in the first three years of MBChB programme from Semesters 1-5 along with the other disciplines at the Faculty of Health Sciences, University of Cape Town. The first year integrated course mainly covers the basic principles and concepts of immunology. However, one of the main challenges faced by the first year medical students is the failure to understand basic concepts as evident from their performances in the assessments.

Methods and Results

A Proof of Concept (POC) involving the class of first year intervention programme (IP) MBChB medical students was developed. Drawing on the various educational theories, innovative strategies and tools that could be used for effective teaching and learning of immunology were explored. The preliminary results strongly suggest the dire need of innovation in immunology education and also emphasise the potential advantages of implementing such innovative strategies for effective students' learning.

Lessons Learned

The strategies and tools that were used in the POC validate the effects and benefits of student-focused theories of connectivism and constructivism as well as the human-technology interactions in the form of technology-enhanced co-operative learning in a collaborative setting. Another key learning is the need for adapting existing educational methods to suit students' various learning styles.

Mariam Karjiker

Towards Relationship Intelligence

Teaching and challenging students to reflectively examine dysfunctional patterns of relationships and teaching healthy relationship skills. I am working in a workshop based fashion with first tier residences and with third year medical students and am collecting feedback data since last year. It is a Reslife sponsored project which is aimed at making residences better living and learning environments. Thus far, the feedback has been overwhelmingly positive. Students feel they are learning about themselves and also respect for the other gender while stereotypes are being challenged. The aim is to foster mutual respect between the

genders while encouraging healthy relational attitudes and patterns of relationships which are functional and respectful. My philosophy about Education is that it should benefit society and the individual. I hope with this project to foster the holistic growth of the students so that we can have competent relational minded graduates who are happy in their own lives while serving society to best of their abilities.

Lori Lake

Child rights and advocacy: Using Vula to promote shared learning and enhance professional practice

This presentation explores some of the design considerations that informed the development of a child rights and advocacy course that forms part of the new Postgraduate Diploma in Community and General Paediatrics. Key concerns were how to take advantage of the affordances associated with a blended learning platform to facilitate a high level of engagement, participation and shared learning – while structuring learning and assessment tasks that enabled students to give effect to children’s rights in their practice and advocate for child health at district and facility level. These design considerations are informed by broader debates around social responsiveness and the Lancet Commission on Medical Education for the 21st Century’s call for “transformative learning” that develops “leadership attributes” and produces “enlightened and professionally capable change agents”.

Rory Liesegang

IT solutions within the blended learning space and its challenges in LMICs

There is a growing movement towards increased IT-based components as part blended learning and other research initiatives within international universities. Within many top 100 universities in high income countries (HICs), free resources have increased significantly over the past years, with presumably positive outcomes for these universities in spite of the real costs incurred in establishing and maintaining them. These include both online learning material and technology solutions (RedCap - Vanderbilt University, Global Health Network - Oxford). Researchers and educators with low- and middle-income countries (LMICs) have unique perspectives as a result of the environmental challenges, and the temptation is surely to contribute their IP to HIC platforms and resource development. This however is not a sustainable solution as IT costs in HICs often limit progress, the IP leaves LMICs, and the focus can be lost. Sadly, all too often, the focus also shifts from originating university to the the individuals. Whilst efforts have been made to establish local initiatives, funding the much needed IT human resources required to establish and support these ventures remains a challenge - and this is in spite of the much lower employment costs compared with HIC settings. It is key that LMIC universities take the lead and engage with local public-private, government, and private-sector, and international universities to raise funding - "local is lekker!"

Graham Louw & Geney Gunston

The impact of preparation for dissection, as assessed through drawings: a pilot study

What issue was addressed?

The influence of emotions on motivation and academic performance, and the need for preparing students for the psychological impact of conducting cadaver dissection have been well recognised. The nature of effective preparation activities has, however, not yet been fully established. Evaluating the psychological impact of cadaver dissection by quantitative means, using questionnaires, may pre-empt students’ responses. In addition, limited vocabulary may be a restriction if students are asked to verbalize their feelings in English. It has, therefore, been suggested that the use of drawings may provide students with an opportunity for unmediated expression of their emotions related to cadaver dissection.

What was tried?

A pilot study was conducted to assess the usefulness of drawings as a means of understanding the impact of cadaver dissection and evaluating the efficacy of the preparation activities for dissection.

What happened?

Before the class was introduced to the concept of body donations or dissection, the first year medical students were asked to draw an image that expressed their feelings and perceptions of conducting cadaver dissection in the foreseeable future. Thereafter, preparation for dissection was provided by means of a series of activities spread over a few months. A second set of drawings was submitted just before the commencement of cadaver dissection in second year and a third set after 4 weeks of dissection.

What lessons were learned?

Analysis of the drawings provided valuable insights into the impact of cadaver dissection and efficacy of the preparation activities provided. A full study is planned. Students' drawings will be complemented by the inclusion of key words summarising the emotions portrayed in the drawing and further exploration via focus group discussions.

Jason Marcus

Will a training day in essential obstetrics skills deliver for final year medical students?

Newly graduated health professionals are poorly prepared to deal with the most common emergencies in obstetric practice in the public sector. Direct obstetric causes of maternal deaths have not declined over the last 6 years, most notably deaths as a result of obstetric hemorrhage and hypertensive disorders of pregnancy. The national department of health mandates that the Essential Steps in Managing Obstetric Emergencies (ESMOE) training package be included in all undergraduate curricula for medical and midwifery students. A dedicated training day was developed to address the most commonly encountered obstetric emergencies. The training day took the form of "fire-drills" which emphasises the correct steps to be taken in a specific obstetric emergency in addition to the importance of team work when dealing with these emergencies. Final year medical students on a rural placement were trained using this approach in preparation for the multidisciplinary exit OSCE. The training day was evaluated at Kirkpatrick level 1 with the small cohort of students on this placement. The performance of these students in the exit OSCE will be compared to the students who have had traditional training in their placement in the metropolitan hospitals on the UCT teaching platform.

Gill Morgan, Tamzyn Suliaman, Namhla Madini, Dilshaad Brey & Mary Shelton

The evolving role of the health sciences librarian as teacher - developing an information literate student while meeting the diverse information needs of faculty

Information literacy, like digital and academic literacies, is one of the pillars of academic development. To be information literate is to know when and why one needs information, how to find and evaluate appropriate information and how to use and communicate it in an ethical and responsible manner. From this, it is clear that competencies expected of students include the ability to articulate a clearly defined question, problem or thesis, the ability to do a comprehensive search of the literature using a variety of search techniques and the ability to evaluate and integrate readings appropriately using a recognized referencing style. Health Sciences Library staff have responded to demands from faculty for instructional support in developing these skills both at undergraduate and postgraduate level. This has seen a scaffolded approach through years one to four in the MBChB programme where skills are taught progressively in alignment with courses being taught; a specially tailored programme for the PG Diploma in Nursing where RPL learners are helped to meet the requirements of the academic programme; and numerous workshops and training sessions for students doing literature and systematic reviews. Last year, a clinical librarian

service was piloted at Red Cross Hospital, with librarians accompanying the team (including students on block rotation) on ward rounds providing support at the point of need, in the form of expert searching and evidence-based dissemination of information. This has led to increased visibility of the librarian and a resultant increase in demand for the librarian's guidance and assistance with research.

Ikechukwu Nwanze, Harsha Kathard & Chioma Ohajunwa

How can we include disability issues into undergraduate curriculum at UCT?

The problem of exclusion of disabled people in society, which a university is part of is due to the lack of awareness and understanding about disabled people. Hurst (cited in O'Connor and Robinson, 1999) emphasized that lack of awareness of disability issues affects the ideology of a university and its staff. If the curriculum does not change, then the problem of exclusion will remain. In order to ascertain the awareness of disability issues in curriculum at the University of Cape Town (UCT), Ohajunwa (2012) carried out a study to ascertain the level of disability awareness in curriculum at UCT by finding out through interviews which lecturers at UCT included disability issues in curriculum. Ohajunwa's (2012) study revealed little inclusion of disability issues, difficulty and lack of clear guidelines on how and what to include and therefore suggested the need to make the process easier for academics.

This study seeks to explore the right content, teaching and assessment methods to include in curriculum that raises awareness of disability issues and also to explore a curriculum development strategy that would make this inclusion easier for curriculum developers at UCT.

A qualitative research approach is used with a single case embedded research design. Data collection methods includes three focus group interviews involving lecturers, disability experts and curriculum developers as the first, disabled students as the second and non-disabled students as the third with follow up in-depth interviews, document analysis and a reflective journal by the researcher. Data will be analyzed inductively using thematic analysis across the different data gathering methods. Findings of the study will reveal the relevant content, teaching and assessment methods to be included in curriculum for disability awareness and also a good curriculum development strategy that makes it easier for inclusion of disability issues in curriculum at UCT.

Lorna Olckers

Celebrating the introduction of a Faculty 'Book of the Year'

In 2016, for the first time, a 'Book of the Year' was chosen for all first year students in the Faculty of Health Sciences. The aim was to create excitement about reading, opportunities for discussion of literature beyond prescribed health science texts, and a shared activity from day one at university. The book that was chosen was Redi Tlhabé's Endings and Beginnings - an autobiographical account of growing up in Soweto. A copy of the book was given to each first year student as they registered for their degree programme in February 2016. The aim of the book of the year innovation was introduced to students, and Becoming a Professional (BP) facilitators worked closely with their students in their multi-professional groups on themes from the book that linked directly with BP course outcomes. This presentation will be a reflection on the experience of introducing this innovation – the challenges and the highlights and some of the lessons learnt.

Marsha Orgill, Nonhlanhla Nxumalo & Lucy Gilson

Innovative practice: Building leadership capabilities for research and teaching

The field of Health Policy and Systems Research (HPSR) is gaining increasing traction globally. This has created a demand for multi-disciplinary researchers who can also lead research and teaching teams. This requires researchers who have skills in academic leadership, personal leadership and are able to think across

disciplinary boundaries in often highly demanding and under resourced environments. In response to this growing demand the CHEPSAA consortium developed an Emerging Leaders Programme that subsequently trained, over an 18-month period (four weeks contact time), 21 participants from African countries, primarily junior/mid- level academics and a few government officials. This paper focuses specifically on the development of leadership skills and the subsequent lessons learnt. We identify leadership as a behavioural capability that requires a different approach to development than traditional competency based training. We focused on some traditional hard skills training in time management, project management and understanding the funding environment; however, our innovative approach was in the soft skills area. We focused on self-awareness; perceptions, the ability to articulate intention and researcher bias. These are important skills for research and teaching in our field, as well as for research and teaching leadership. We drew on two experienced life coaches to facilitate these sessions over a seven-day period, using experiential methods such as thinking pairs, reflection sessions and a variety of games to promote self-awareness. Many of the participants found experiential training methods unusual, however in evaluation exercises immediately after and a few months later many commented that they were now much more self-aware, practicing active listening during data collection and with peers, using innovative approaches such as world cafes in teaching and routinely reflecting on their teaching and research to strengthen practice. An overall win for the programme was that participants now recognise soft skills as important for leadership.

Steve Reid, Deli Amosun, HOFFIE Conradie & Danny Daniels-Felix

The impact of undergraduate students on district health services delivery

Context:

A concern of health managers who are focused on service delivery outputs, is the potentially negative impact of the time that clinicians take to teach undergraduate students, on the delivery of services to patients. On the other hand, students doing clinical clerkships can potentially add to the service a pair of educated and willing hands as they learn practically by doing rather than being exclusively taught. International evidence shows that over the long term, the health service benefits of hosting students in practices and hospitals outweigh the demands that they place on the system. However very little data exists with regard to the impact of undergraduate students at district level in the South African situation. What is the effect of continuous undergraduate student involvement on service delivery outputs in the district health services?

Aim:

This project aimed to describe the balance of the burden versus the benefit of undergraduate students on health service delivery.

Methods:

A qualitative phase of open-ended interviews with key informants before and after the introduction of students, was conducted in four rural teaching sites administered by the Universities of Cape Town and Stellenbosch.

Results:

The qualitative results described the burden in terms of the extra work of teaching, the costs of orientation, and student attitudes. The benefits to service delivery included quality of care, efficiency, staff morale and time with patients. These effects were mediated by the length of time of the student rotations, their seniority, and the learning environment.

Conclusion:

The conclusion was that students can add a net positive benefit to services in the short and the long term in the South African setting, depending on their stage of development and health profession in relation to the needs of the services.

Matumo Ramafikeng

Translanguaging as a strategy for supporting learning among Occupational Therapy students that have English as an additional language

Attainment of educational outcomes remains disproportionate between population groups in South Africa, particularly in higher education. In Occupational therapy in the third and fourth year of study, African students make up the majority of students that are referred for academic support. Among other challenges, they encounter linguistic, cultural and academic challenges. The aim of this presentation is to share experiences of addressing some linguistic and social challenges using translanguaging in academic support tutorial spaces. This strategy has been useful in advancing understanding, identity development and performance as occupational therapists and critical dialogue about occupational therapy and occupational science concepts among African students. This extended their approach to learning beyond just rote learning that students with limited understanding often engaged in as compared to critically engaging with theory. Translanguaging could be a useful strategy that could improve academic performance and excellence among African students.

Jean Baptiste Sagahutu, Jennifer Jelsma, Francois Cilliers & Jeanne Kagwiza

The use of the International Classification of Functioning, Disability and Health (ICF) in improving knowledge and attitudes regarding interprofessional practice

Background:

Good collaboration between Health Care Professionals can result reduce medical errors, enhance the spread of critical information, and assist in interpretation of health information.

Aim:

To determine whether the International Classification of Functioning, Disability and Health (ICF) can be used as a framework to promote knowledge and positive attitudes towards interprofessional practice within hospital settings in Rwanda

Methodology:

A Cluster Randomised Control Trial (CRCT) was used. Four district hospitals were randomly allocating to receive a day's training in interprofessional practice using ICF as a framework selected or a short talk and a booklet on the topic. Self-designed instruments to measure knowledge and attitudes were validated. Between-group analysis using independent t-test and Mann-Whitney U test was used to establish if the two sets of groups are equivalent before and after training, baseline and at two months, four months, and six months.

Results:

PA total of 203 Health professionals participated, including nurses, medical practitioners and other groups. There was no significant difference between the Knowledge and Attitude scales pre-intervention. Post-intervention results show a significant difference in mean percentage gain on the Knowledge questionnaire (experimental group mean=41.3, SD=9.5; control group mean=17.7, SD=4.7 (t=22.5; p<.001). On the Attitudes Scales, the median scores of the Experimental Group improved from 77.8 to 91.1%, whereas the median scores of the Control remained approximately 80%.

Conclusion:

The use of the ICF as a framework for training health professionals regarding interprofessional practice resulted in a significant improvement in both knowledge and attitudes. It is thus recommended that the

framework be used in interprofessional education in Rwanda and other similar countries. Key works: Interprofessional, knowledge, attitudes, training.

Stephanie Sieberhagen, Natasha North & Minette Coetzee

Development of a student nurse support programme – NursingWell

Through our annual curriculum process review in 2015, colleagues in our practice development research team were invited to bring new perspective to established programme approaches and delivery. Three themes emerged.

1. Lecturers felt over-burdened with students' academic and personal needs, resulting in a recurrent theme of unstructured additional 'giving'.
2. Students described knowing they would be 'given more chances' to complete work. Students' personal resilience and supportive peer relationships were not developing.
3. Soft skills important to academic performance, personal and clinical leadership, and quality improvement were not finding a place in the curriculum.

These themes resonate with current debates regarding capacity building for human resources in health, and the importance of caring for carers. They also reflect challenges associated with educational and professional transformation for staff and students, and the transitions involved in post graduate study and studying away from home. The research team developed a programme called NursingWell, using the UCT Vula platform as the central communication tool. Peer groups of students were formed, with a staff mentor assigned to each group. Mentors met with their groups weekly during the initial orientation period, then monthly. Mentors were provided with a facilitation guide for each session. Student peer groups also meet weekly throughout the year without staff involvement. Students submit two weekly blogs reporting on their personal experiences, clinical placements and peer group interactions. A WhatsApp group is the communications platform for immediate communication. A soft skills component was added, incorporating research readiness, leadership and change management skills. Initial feedback indicates that the programme is improving all previously reported problem areas. The programme is remarkable for its low resource requirements, and implementation has relieved the burden on staff and students rather than imposing additional demands. We are tracking implementation data. Anticipated adaptations for 2017 include nutrition and fitness.

Wynand Smythe, Delva Shamley & Lesley Workman

Clinical research training: meeting the MMED challenge

The MMed is a course masters with a 60 credit research component. This means a total of approximately 550 registrars per annum entering with varying levels of prior knowledge and requiring training in research methods.

What is the challenge?

Between 2008 and 2014 the FHS at UCT implemented two models for research methods training. One was implemented by the department of medicine which was a 1-week full time training course and the other was a 2-day didactic course delivered over a weekend. Informal evaluation of both concluded that they were not meeting the needs of the registrar. Concerns included: too much material in too short a time; material too complex for level of knowledge; on-going inability to address statistical issues; engaging in research too long after the training; limited time to attend courses.

What have we implemented?

A blended learning approach has been taken which draws on the following criteria of an adult learner: take responsibility for own learning, learn to collaborate, make meaning rather than merely collect facts, apply learning back to the problem for deeper understanding, analyse what has been learnt, evaluate. The

programme includes: a MOOC; a two-day workshop run over two consecutive Saturdays; roll-over focused sessions dedicated to specific research needs of that group; research design mentor. The two-day workshop is aimed at the delivery of material and the immediate application to the attendees own research question. Each day ends with specific deliverables pertinent to their own project. The programme is supported by a training manual containing many key articles and tools for managing critical appraisal, design specific approaches and tools for writing. Course evaluation is very positive but the issue of being released from clinical duties to attend training remains a barrier to accessing focused sessions.

Charle Viljoen, Rob Scott Millar, Ashley Chin, Mpiko Ntsekhe & Rachel Weiss
ECG ONLINE: providing web-based opportunities for ECG learning

Despite ECG interpretation being an essential learning outcome in medical curricula, poor skills have been documented among medical students and junior doctors worldwide. Reasons include limited time available for ECG lectures and small-group teaching, poor standardisation of teaching amongst non-experts, lack of consensus on the method and content taught to different levels of expertise, and limited learning opportunities where students receive feedback in ECG analysis. To address these issues, the University of Cape Town's Division of Clinical Skills collaborated with the Division of Cardiology to develop an electronic platform for practicing ECG interpretation. ECG ONLINE supplements current classroom and bedside ECG teaching, enabling students to practice ECG analysis and receive immediate structured feedback. Specific learning points that highlight the subtle interpretation nuances lacking in textbook examples are provided. ECG ONLINE discourages simplistic pattern recognition and reinforces stepwise analysis in line with UCT's preferred systematic interpretation method. ECG ONLINE's development presented challenges as well as novel opportunities, and this journey may interest other colleagues pursuing e-learning. Challenges related to the technical aspects of development include funding, finding suitable software developers and a phased developmental plan to ensure sustainability and on-going quality assurance. Educational challenges include the development of a site that trains and tests a systematic approach to ECG analysis and to achieve this within the confines of a low-cost web interface. Opportunities relate to interdisciplinary academic collaborations, an ECG curricular review and educational research. The impact of ECG ONLINE is currently being studied as part of a PhD project at UCT, while a pilot study with interns at Groote Schuur Hospital provided valuable feedback informing upgrades to the site. A teaching app to supplement ECG ONLINE is also being developed in collaboration with Appenberg Digital Publishing and will soon be available for download on iTunes and Google Play.