SOTL! IN THE SOUTH

Scholarship of Teaching and Learning in the South

School of Tourism and Hospitality

Auckland Park Bunting Road Campus

University of Johannesburg

South Africa

24 – 27 July, 2017

BOOK OF ABSTRACTS

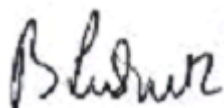**Dear SOTL in the South conference participants**

It is with great pleasure that I welcome you to Johannesburg, South Africa for these four days. The SOTL in the South conference promises to showcase innovative research methods and exciting new findings, as well as feature provocative debates, particularly as these relate to the issues facing higher education in South Africa, and globally, at present. The conference will feature 66 paper presentations, five poster presentations, an exhibition, three special sessions, eight keynote addresses, and six panel discussions.

The scholarship of teaching and learning (SOTL) in higher education has gained momentum and credibility internationally. This is reflected in the fact that this conference features delegates from universities and institutions from six continents. The reason for its growth is that SOTL is an important means to enhance teaching and learning and to support the professionalization of academics with regard to their teaching role. It is also a means to contribute to the body of knowledge on teaching and learning in higher education.

In Southern Africa, specifically, the scholarship of teaching and learning has similarly gained significant momentum. Again, this conference features representation from 17 institutions of higher education in South Africa, as well as institutions elsewhere in the region. This reflects the fact that many universities have put considerable moral and material support behind this scholarly activity and it is time to celebrate and disseminate these achievements.

Since the #Fees must fall and #Rhodes must fall student campaigns, beginning in 2015, there has been a growing debate in South Africa about the appropriateness of the content of our curricula, and an interest in looking towards the 'global South' for additional or alternative methods and content. While international models and debates are valuable, it would be useful to contextualise these in relation to challenges and opportunities provided by settings such as the global South, which have not received as much attention. Furthermore, the consolidation of a rigorous and creative scholarly SOTL community in the global South can serve to enrich international theories and ideas.

On behalf of the conference organising team, I wish you well with your presentations and deliberations, and hope that you enjoy the conference programme, and that you make use of the social programme to extend your conversations.

Professor Brenda Leibowitz
Chair: Teaching and Learning
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KEYNOTE SPEAKERS

Ways of Knowing and the Possible Contributions of Curriculum to the De-colonising Project

Yunus Ballim

In different forms and across the years, the call for curriculum transformation in higher education has been heard throughout the post-colonial world, both from within and outside the university. This is seen as one component of a broader post-colonial project which includes economic, political and cultural transformation to allow a more fitting and more respectful engagement between the new nation-state and its colonial past. The volume of this call for curriculum transformation has significantly increased in South Africa over the past 18 months and it useful to explore what this means in a post-apartheid South Africa.

In this presentation, I argue firstly that the idea of "de-colonising the curriculum" is poorly conceptualised and inappropriate in its expectations and that the question is better stated as: "how do we construct curriculum in higher education to positively contribute to the de-colonisation project, particularly in the complex task of de-colonising minds?" The second part of the presentation reflects on the idea that the learning needs of our students are best served when we expose them to as many ways of knowing as possible. Curriculum development that acknowledges different ways of knowing in developing of the habits of mind of students is therefore an essential starting point for the contribution that higher education can make to the de-colonising project.

Rurality research, social justice, inclusive innovation, access and equity: Analysis of teaching and learning, University of Botswana

Maitseo Bolaane

The aim of this presentation is to develop a comprehensive argument analyzing the concept of rurality, social justice, access and equity in the Botswana higher education system using the University of Botswana (UB) Learning and Teaching Policy as the framework. The launch of the Southern African Universities Learning and Teaching (SAULT) Forum is evidence of growing scholarship of learning and teaching in the south. But the question is "to what extent is scholarship on teaching & learning relevant to the needs of the community under study?" Like most universities in southern Africa, the state-funded University of Botswana has been implementing policy on teaching and learning to provide relevant and high quality academic programmes at the graduate and undergraduate level. The UB Learning and Teaching Policy is not only in line with the University Strategic Plan to 2016 and Beyond (Strategy for Excellence) but other key national policies/ strategies including Vision talks of being grounded on the requirement to prepare students effectively for life, work, and citizenship so that they will be able to contribute to economic and social development, adapt to change and provide leadership. Students are very central in the implementation of learning and teaching policy and therefore, this presentation will reflect on ethical issues which arise from teaching and learning with respect to the rural population. Furthermore, this presentation will make specific reference to the student population of those coming from marginalized communities. Lessons will be drawn from the UB San Research Centre in understanding the extent to which universities in the south address social justice and inclusive innovation within the learning and teaching. This is in response to the call for increased inclusiveness of the social structures that universities interact with at the community level in discharging their social mission and public good. Such communities must necessarily include marginalized social groups whether geographically distant or ethnically marginalized, as well as the urban poor for whom technological innovations are not in the mainstream of the frameworks that formal social service structures and processes work with.

The scholarship of teaching and learning in Latin-America: Conceptualization, empirical findings and challenges for the future

Carolina Guzmán-Valenzuela

Over the last decades, the SoTL has focused on (i) how to promote student learning in tertiary education through good teaching practices and (ii) on teaching and learning as an area of study of its own. However, there is another component that needs to come into play: (iii) the geopolitics (de Sousa Santos, 2015; Connell, 2007) in which the SoTL takes place. In this talk, I will take up this last aspect and offer a perspective on teaching and learning as geographically located in particular countries, focusing especially on the South and, especially, on LA. Empirical findings obtained as part of a current study about the construction of knowledge in higher education studies in LA in the last decades show that the scholarly research on teaching and learning is dynamic and growing. However, it also shows that most of the academic productivity in the area draws on theories produced in the North which are then nuanced to understand or explain a specific LA context. Few papers offer a more critical perspective about those theories in understanding teaching and learning. These findings would help to reflect on teaching and learning processes and to illuminate the challenges that the SoTL in LA faces. It also might suggest ways in which new understandings about the SoTL in LA (and more widely in the South) might be developed.

Decolonisation, Pan-Africanism and the Current Struggle for Transforming South African Universities

Cheryl Hendricks

Since the emergence of the #Rhodes Must Fall and #Fees Must Fall Movements, in 2015, the call for decolonisation of knowledge at South African universities echo loudly. The questioning of the dominance and universalisation of a particular western centred epistemology and methodology has also spread to universities in other countries, for example, the London School of Economics. Alongside this call is the re-discovery and advancement of Pan-Africanism as an ideology that will enable a re-centering of Africa within university curricula in South Africa. The call for decolonisation of knowledge and for an African-centred curricula is however a contested one.

What is striking is not that these calls have emerged, but why it has taken South Africa so long to reach this turning point; the uneasiness with which these calls have been embraced at the universities; and how universities have sought a very limited interpretation of what this means, both in terms of the curriculum and the broader culture and management of our universities. This paper will reflect on why South African universities find themselves at this cross road, what is meant by decolonisation of knowledge and an African-centred curriculum in this context, what are the points of contestation and to identify some of the strengths and weaknesses of the processes that universities have put in place in order to deal with the challenge. The paper will draw on an international body of literature on decolonisation/decoloniality as well as reflecting on the writing and debates in South Africa and on my personal experience. It will argue for the need for a critical review and transformation of all key aspects of our universities if we are to give substantive meaning to decolonisation and become "epi-centres of Pan-Africanism".

Bringing context back into SoTL: the cultural, material and ideological considerations in learning and teaching in higher education

Peter Looker

The genesis of the Scholarship of Teaching and Learning (SoTL) in Boyer's Scholarship Reconsidered (1990) has been recounted many times over the last two decades, giving shape to a variety of views as to what SoTL might be, and how it may lead to improvements in teaching practice. While there is considerable fuzziness around what SoTL might be, it is often distinguished from educational research because it tends to focus on classroom practice, rather than general theories about learning. Peter Felton (2013) describes US practice in SoTL as "classroom-oriented, rather than theory-or hypothesis-driven". Because of this, SoTL is something any teacher can undertake, focusing on her or his own practice. However, in this presentation I wish to suggest that, as it stands, this focus on classroom practice ignores the cultural contexts of the classroom, rendering cultural values and beliefs about education and good student learning invisible. Also, why have SoTL practice, conferences, and publications focused for so long on a narrow range of Anglophone countries? What assumptions are embedded in the under-theorised practice of SoTL that have prevented its wider spread to other parts of the world?

This paper will address the cultural, political and ideological absences in SoTL as it is normally discussed and practiced, implying that a major problem of the current focus on classroom practice may be its lack of generalisability. Drawing on the New Historicism of the 1980s, I will suggest that SoTL may be better contextualised culturally, less restricted to a handful of Anglophone countries, and (perhaps paradoxically) more generalizable, if we do not isolate the "classroom" from its cultural and material contexts. A parallel will be drawn with New Historicism, which suggests that literary texts cannot be isolated from their cultural and material historical contexts. Some illustrations will be provided of differences between the Singapore ("Asian") classroom and the American classroom.

Felton, Peter (2013) "Principles of Good Practice in SoTL" Teaching and Learning Inquiry, Volume 1, Issue 1, p. 121

Intercultural supervision in the South: postcolonial interrogations of time, place and knowledge

Catherine Manathunga

Despite decades of postcolonial, Indigenous and feminist research, dominant Northern knowledge continues to claim universality across time and space in many academic disciplines and continues to ignore geopolitical power struggles over knowledge. This has taken on a particular urgency in South Africa since the #Fees must fall and #Rhodes must fall student campaigns beginning in 2015. The intercultural postgraduate supervision contact zone is a key pedagogical sight heavily implicated in these struggles over contested histories, geographies and epistemologies. In this keynote presentation, I will explore Southern, postcolonial, Indigenous, feminist, social and cultural geography theories about time, place and knowledge and some empirical data on intercultural supervision in order to illustrate the generative and troubling features of contemporary research and postgraduate supervision. This will draw upon my 2014 book on Intercultural Postgraduate Supervision: Reimagining time, place and knowledge and on more recent collaborative research on reimagining history in intercultural supervision. Drawing upon macro and micro histories of intercultural knowledge exchange, I argue that intercultural doctoral education can become a space where Indigenous and culturally diverse doctoral candidates construct transcultural knowledge that privileges Southern (Connell, 2007) cultural, linguistic, intellectual perspectives. I also explore innovative time mapping methodologies my colleagues and I have developed to chart the complex cartographies of history, geography and epistemology in intercultural supervision.

Another University is possible: uneven and combined processes to decolonise the university worldwide

Boaventura de Sousa Santos

The Westernized university is now a global phenomenon and its main driving forces are, more than ever, university capitalism and university colonialism. They produce as much homogenisation as segmentation and differentiation between countries and inside each country. Decolonising the university is therefore a very complex process. Guided by the epistemologies of the south, this talk will proceed by combining different processes and strategies in the global north and in the global south.

SPECIAL SESSION: STUDENT VOICES

Impact of faculty isolation on student learning experiences: The case of an Art, Design and Architecture Faculty

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The Faculty of Art, Design and Architecture (FADA) at the University of Johannesburg (UJ) allocates one week each year (usually at the end of February) for student collaboration across departments and faculties. The initiative is called 'Green Week', the purpose of which is to ensure students' preparedness for industry after graduation: only final year students are involved in Green Week. In 2017, the focus of Green Week was slightly different given the #feesmustfall protests that affected South Africa in 2015 and 2016. The students decided to investigate whether or not the FADA offered a conducive learning environment, and the students' perceptions about the Faculty's isolation from other university activities. It was also intended to allow space for student voices, which seem often to be supressed in the higher education environment. Lecturers from the eight departments that make up the Faculty. The chief organiser of the Green Week then developed a student brief that articulated what would be required from the students. 250 students representing all eight departments were teamed in groups of eight students each. Each group was tasked with conducting a problem analysis, brainstorming solutions and presenting recommendations on the challenges they identify as facing students. They were required to use interviews and questionnaires to collect data. The findings were concerning, particularly regarding student perceptions of the Faculty as a learning environment. In this special session, one of these groups presents their findings. The following words were used by students to express their experience at FADA: lonely, stressed, anxious, excluded, frustrated, uncomfortable, hopeless, depressed, scared, under pressure, compromise and expensive. The students, furthermore, felt that although learning in the 21st century, they were being taught using 19th century methods. The students identified a number of challenges pertaining to, inter alia: Blackboard (the University's Learning Management System), the inter-campus transportation system, campus security measures, the isolation of the Faculty from the rest of the University, and the Faculty buildings. The students also felt that the programme offerings were too expensive, and that the prices of goods, including food, sold on campus were also prohibitive. Some students felt that the prices were set to deliberately exclude certain groups of the South African population. The students suggested that there is significant potential for the Faculty to address funding challenges if it partners with industry. Specifically, they recommend that the work students do could generate income if it was undertaken for real world purposes: this would not only alleviate funding challenges but would also provide for authentic learning.

SPECIAL SESSION: THE FUTURE OF SOTL IN THE SOUTH

The conference organisers

In this session, the conference organisers will lead discussion around the future of the SOTL in the South conference. The session will be an opportunity to reflect on the value of the current conference, the challenges facing SOTL in the global South, and the opportunities for the future. The session will be loosely structured, and will rely on input from participants.

PANEL/ROUNDTABLE DISCUSSIONS

The role of personal mobile devices in facilitating teaching and learning at four universities across South Africa

Cheryl Brown   (cheryl.brown@uct.ac.za, UCT)
Genevieve Haupt
Thomas King
Carina van Rooyen
Ingrid Marais
Hemali Joshi
Maria Frahm-Arp
Edith Phaswana
Thea de Wet
Puleng Motshoane
Godfrey Rudolph
Ria Vosloo
David Root

Over the past decade, universities in South Africa (SA) have recognised the role of educational technologies as tools to facilitate teaching and learning (Czerniewicz and Brown, 2009; Bozalek et al, 2013). However, there remains an economic and moral dilemma for universities in South Africa, as students come from diverse backgrounds, geographical locations, materials and technological capacities, and access to ICTs therefore cannot be assumed (Broekman, Enslin and Pendlebury, 2002; Brown, 2014; Brown and Pallitt, 2015:4; Czerniewicz, 2015). This question of material access has been recognised and, through the purchasing consortium (PURCO) of South Africa for higher education institutions, a cost effective purchasing scheme for students to acquire laptops and tablets was developed. While this scheme begins to address the issues of physical access there is also the issue of epistemological access to educational technologies (Bozalek and Ng'ambi, 2015:4; Chen and Denoyelles, 2013; Johnson et al, 2015:34; Kilfoil, 2015; Moje 2007). A number of universities across South Africa have developed specific strategies to facilitate and investigate the use of personal mobile devices (PMDs) in the classroom.

In 2013 UCT started a flexible Learning Pilot Project which involved mandatory one-to-one laptop access for 476 students in four undergraduate courses (i.e., Chemical Engineering, Physics, Law and second year Architecture). To ensure that all students in the aforementioned courses had laptops, financial aid students were provided with a laptop by the university.

In 2014, the Department of Higher Education and Training (DHET) commissioned the University of Cape Town (UCT) to "investigate whether the financial investment of a personal mobile device, whether on the part of the university or student themselves, adds value to the learning experience" (Brown, 2014). As the project lead, UCT sought to collaborate with four other institutions across SA who had been doing various types of research in similar areas, to try to understand how access to PMDs enables greater flexibility and effectiveness of teaching and learning in the higher education sector, both in and outside of the classroom. Three of the four other institutions were the University of Johannesburg (UJ), Sol Plaatje University (SPU) and the University of Witwatersrand.

In 2014 the University of Johannesburg (UJ) became the first South African tertiary educational institution to fully embrace the use of mobile devices for teaching and learning (Amory, 2014). The

University decided that owning a mobile device, which included laptops and tablets, was essential in the teaching and learning project and therefore made it compulsory for all first-year students to have a device. UJ provided substantial funding for NSFAS students to meet this requirement.

The newly established Sol Plaatje University (SPU) in the Northern Cape opened in 2014 with a decision that all students should have personal mobiles device in the form of laptops. Their vision is to make their campus a fully-wired one. And the University of Witwatersrand (WITS) is moving towards having an appropriate blend of contact and electronic learning components in their teaching that mutually support and enhance the learning experience.   This will require all students from second-year level to have access to their own mobile device.

This panel discussion highlights some of the institutional findings of UCT, UJ, SPU and WITS and their relevance to learning and teaching in the South. It consists of an overview of the projects followed by five individual papers, and will end with a summary of the lessons learnt across the project.

The use of PMDs by first year students in an extended degree program at UCT
Cheryl Brown, Genevieve Haupt, Thomas King

The extended degrees programme in the Faculty of Humanities, was selected as a location for this study for two main reasons. Firstly, many of the students enrolled in this programme come from a poorer socio-economic background and therefore would not be have access to BYODs and, secondly, courses in this programme have chosen to adopt a blended learning approach so that the addition of a device may assist students in one way or another.

At the start of their first year students were surveyed about their access to PMDs. Based on need, 68 students were given an entry level proline tablet to use as their own for the duration of their studies. By establishing a learning context where students all had access to a PMD the lecturers could engage students in a multimodal blended learning and teaching approach. This paper draws on data in the form of student surveys and focus group discussions. It explores the challenges and opportunities for students in using PMDs for their learning both in- and outside of the classroom, as well as the transferability of their use of PMDs across courses in their program.

UJ undergraduate and postgraduate students' experiences of using a handheld device for learning
Maria Frahm-Arp and Hemali Joshi

At UJ, tablets were provided to students enrolled in two departments in the Faculty of the Humanities at two year levels, namely second year students and Honours students. The aim of our research was to shed some light on the use of PMDs in learning, both inside and outside of the classroom, over the period of the study year. Drawing on a mixed methods research design, we conducted surveys and focus group discussions with the students. Our findings reveal layered stories of student experiences and attitudes about learning with PMDs, many of which were very positive. We utilise Brown and Czerniewicz's (2008:4) four media groupings (namely communicative, interactive, adaptive and productive) to discuss the uses of PMDs for learning. We found similarities in the uses of the PMDs by undergraduate and postgraduate students, in both small and large classes. In our discussion, we highlight the creative and critical uses of PMDs by the students in courses where opportunities were provided for collaborative or partially self-directed learning (Fenwick and Edwards, 2014; Giroux, 1994; Knowles, 1975).

UJ Humanities first year students' perceptions and uses of PMDs for learning: Implications for a socially just pedagogy
Carina van Rooyen, Ingrid Marais, Hemali Joshi, Edith Phaswana, Thea de Wet and Puleng Motshoane

In the context of the compulsory 'roll-out of tablets' for first years at the University of Johannesburg since 2014, we investigated the perceptions and experiences of first year UJ Humanities students about the use of PMDs for learning. We deliberated on how many Humanities first year students owned or had access to PMDs, and the kinds of PMDs to which they had access. We also looked at whether students felt that these PMDs enriched their learning experiences, in what way and for what kind of academic purposes different groups of students used PMDs, and what challenges (on and off campus) they experienced regarding the use of PMDs for learning. We used a sequential mixed methods research design to unpack these questions. We conducted a survey amongst the first year Humanities students the end of 2015, which we followed-up with focus group discussions in the second half of 2016 and early 2017. We found that while tablets and mobile phones are the devices owned by the majority of students, smartphones are seldom used as a learning device. In terms of their manner of use, consumption of information – rather than knowledge production – dominate, with retrieval of information and communication being the main uses. Despite the overwhelming majority of students indicating that they are comfortable with technology (i.e., technical literacy), not many knew how to use their devices in collaborative, transformative learning. This hints at the lack of digital literacies (what and how) and fluencies (when and why) (Briggs, 2011), not only among students, but also among lecturers, as well as the dominance of associative pedagogies (see Conole, 2010). Lastly, we consider the implications of our findings for a socially just pedagogy, by drawing on Nancy Fraser's (2008) idea of participatory parity. In our presentation we will unpack these implications by contemplating issues of access, recognition of social status, and voice and framing.

The use of social media for learning among first generation university students at SPU
Godfrey Rudolph

One of the main research interests at SPU has been to understand social media use and the role of Web 2.0 tools such as Facebook and YouTube to facilitate the sharing of information and how it is incorporated into collaborative learning. The use of social media for learning, creates new opportunities for innovation and prepares students for the 21st century. Further, the use of social media encourages more active as well as interactive learning through affordances of online networks and communities to facilitate multi-directional communication and knowledge exchanges. In order to gain an understanding of how social media was used for learning, students were surveyed and asked (1) How do you use social media sites for learning? Briefly describe what you do; (2) What are the potential benefits for using social media in learning; (3) What are the potential challenges or disadvantages for using social media in learning; and (4) Do you believe that social media sites can be valuable tools for collaborative learning? Social media sites such as Facebook and Youtube were found to be the most visited sites with perceived positive benefits for supporting student self-regulated and collaborative learning.

Understanding the need for electronic devices and data among first year Construction Management students at Wits
Ria Vosloo and David Root

As a response to the massification experienced over the last few years, the academic staff members in the School of Construction Economics and Management have adapted their pedagogical approach to rely on more student-directed and student-centered learning requiring significant peer-to-peer

interactions. In 2016 the School engaged in an exploratory project that sought to understand the student experience of first year BSc Construction Studies and BSc Property Studies students, specifically around how to utilise electronic resources (both those accessed through the University, and those that operate outside University structures such as social media) to support their studies, and specifically in the management of interactions with their peers to achieve learning outcomes. One aspect was to inform staff as to the experience of the students in interacting with each other and with the University resources and the impact that this functionality has on the learning behaviours and peer to peer, and peer to lecturer interactions. This presentation reports on a survey conducted amongst first year students including aspects of device and data availability, and the experiences of 50 first years who were selected to participate in a project where they would be issued with tablets and data. Findings show it is clear that the need for devices and data were initially for, among others; the downloading of notes and information, completing online tutorials; communicating with lecturers and other students and to type assignments. Another aspect identified was the improved ability to work off campus and thereby reducing high risk or costly travel and having time to sleep at home.

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Transforming higher education: Towards a socially just pedgagogy

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The call for transformation in higher education has become a global phenomenon. Epitomised with the #RhodesMustFall movement in South Africa in 2015, the idea that universities need to change how they relate to the knowledge project and how they structure and treat teaching and learning has gained momentum and has featured prominently all over the world. That said, the notion of the university as a site for transformation in higher education is not a new one. Arguably, universities have always been sites of transformation, where new information and knowledge has fundamentally shaped society and individuals. This has happened through the research undertaken and produced but also by our teaching and learning practice at universities. In this moment where calls are being made to transform university spaces, this panel seeks to discuss theorised understandings of what transformation means in a pedagogical sense. We consider that the current debate about transformation in higher education speaks to concerns around how and to what extent university education empowers students to challenge unequal and unjust societal practices. To this end, we tackle some of the meanings and conceptions associated with transforming higher education in relation to national and global demands on the one hand, touching on pedagogic possibilities on the other hand.

To do this, the panel proposes the following papers:

Transforming higher education: Towards a socially just pedgogy.
Prof Ruksana Osman and Prof David J Hornsby

This paper examines ideas pertaining to transforming learning in higher education. Starting with an introduction to a body of ideas as they have emerged and developed, we tackle some of the meanings and conceptions associated with transforming higher education in relation to national and global demands on the one hand, and pedagogic possibilities on the other hand. The transformation-pedagogy nexus, as taken up in this paper, aims at using pedagogy as a change process and transforming the pedagogical practices of higher education. The two key issues to be taken up here relate to what constitutes transformative pedagogies or socially just pedagogies, and their transformative potential for institutions of higher learning.

Creating opportunities for a socially just pedagogy: The imperatives of transformation in the post-colonial higher education spaces.
Prof Felix Maringe

The concept of socially just pedagogy has a relatively short history in South Africa even though its emergence on the international stage can be traced to work focused on differentiation and inclusion (Burton 2010). As these concepts came under scrutiny and criticism, primarily because they were seen as contributing to inequities and unequal educational opportunities, they were displaced by a

discourse of socially just pedagogies. This paper argues that the imperatives of internationalisation through the development of internationalised curricula do not provide a sufficient foundation for a socially just pedagogy. In light of the global south especially, and in tandem with the imperatives for transformation and Africanisation, we need glocalised pedagogies which locate Afrocentric approaches based on the core principles of prioritising the centrality of the cultural context and knowledge capital of the learners, promoting context deep learning, creating fair and equitable opportunities for promoting dialogical learning, promoting varied assessment especially that which nurtures intellectual growth, rather than only that which measures learning achievement and creating third culture learning spaces in which viewpoints are negotiated respectfully. In this paper, the concept of a socially just pedagogy is addressed, followed by a critique of internationalisation and internationalised curricula and how these differ from glocalised approaches.

Being/Becoming an Undutiful Daughter: Thinking as a practice of freedom.
Dr Danai Mupotsa

The undutiful daughter is a figure brought to breath in a recently edited volume (see Gunkel, H., Nigianni, C., & Söderbäck, F. (Eds.). (2012). Undutiful Daughters: New Directions in Feminist Thought and Practice. New York: Palgrave MacMillan). Feminist scholarship and activism, no less pedagogies, retain a near paranoid, albeit reparative relationship and commitment to the questions of difference in ways that make it unsurprising that this volume, like many others, plays emphasis against easy, unified solidarity. The undutiful daughter is a figure of the demand for defamiliarisation and transformation brought to form in the preface of that book by Rosi Braidotti when she is described as undutiful not only to one, no less the One, but to many. The wilfulness of the undutiful daughter demands in the least a quarrel with disciplinary forms of knowledge which in the first are confined to the logic of One and its limited forms of reason. In the next breath would follow a demand against simple inclusions that are reformist and hence remain in line with the One. There are a range of near-kin figurations, like Sara Ahmed's killjoy. As Ahmed describes it, to be a killjoy is living in proximity to a nerve. The killjoy is full of will, so much so that she is perceived as so full of her own will that there is not enough space for her to receive the will of others. Those of us who are minor subjects, no less minor subjects who write and speak in minor literatures (crudely speaking, outside of the disciplines), might be characterised in such a manner. In this paper, critical anti-racist, feminist and queer theories on the subject of learning and thinking as an enabling practice of freedom are worked through. The paper draws in particular from various strands of difference (and sexual difference) feminism, intended to signal the positions of reader as both student and teacher to foreground the personal/political as a critical political and intellectual location from which to shape the engagement of the "classroom" as the scene of thinking and learning. In part, this is a paper invested in thinking about how the social and political locations of students from non-dominant locations always already bear potential for a questioning of universalising assumptions about the properly human subject. And yet, with an increasingly neoliberal university where students and their teachers are even more so enclosed in a "banking-knowledge" system that reads progress as access to a job, and a restoration of the structures of order and power, it seems difficult to imagine ways of making education a site for liberating possibilities. This paper suggests ways of foregrounding awarenesses of difference such as sex, sexuality, gender, race and class as an approach to thinking that is enabling, even when it does not always make us happy. In this sense, the paper confronts the proponents of a happiness produced through an inclusive "diversity," that allows "Others" to enter the space of education, albeit without a critical interrogation of its fundamental assumptions. This paper plays with two key notions or sites of intensity: passion and will. As suggested above, minor subjects who are variously placed in non-dominant locations have personal/political stakes in a multivalent project of defamiliarisation.

Teaching in and for Social Justice.
Prof Brenda Leibowitz, Dr Kibashini Naidoo, and Dr Razia Mayet.

This papers argues for the scholarship of teaching and learning (SOTL) as a means to advance both a socially just pedagogy and a pedagogy for social justice in higher education. The concept of a socially just pedagogy is defined and the implications of this for SOTL for social justice are discussed. Most importantly, the paper argues for a form of reciprocity or alignment, where the kind of learning and attributes one would expect on the part of learners, would be expected of the educators, as teachers, researchers and learners. The framework is informed by earlier work done by Leibowitz (2016) and Bozalek and Leibowitz et al. (2012), as well as important writing on criticality and emotions (Zembylas 2014) troubled knowledge (Jansen 2009) and learned ignorance (Santos 2001). This discussion forms a conceptual framework against which the empirical section of the paper is refracted. The empirical section is an outcome of an action-based and collaborative support project, consisting of seminars, workshops and other dissemination opportunities, to put into practice the ideas on social justice and SOTL that are discussed in the conceptual framework. For this, study members of the SOTL @ UJ research project interviewed both members of the project and academics who are not members. Altogether, 20 interviews have been conducted. The analysis of the interviews focuses on absences, silences, contradictions, interesting tensions and the implications of the interviews for the use of SOTL as a means towards establishing socially just pedagogies in higher education.

How and why do we disturb? Challenges and possibilities of pedagogy of hope in Socially Just Pedagogies.
Dr Peace Kiguwa

In this paper, the author reflects upon experiences of teaching undergraduate social psychology and critical social psychology courses at an institution of higher learning. The orientation is a critical social psychology pedagogy that has entailed an active engagement in teaching practices that disturb both common sense and taken-for-granted assumptions and analyses of the social world. In keeping with bell hooks' and Paulo Freire's notions around a pedagogy of hope, the possibilities for learning, re-engaging the social in the classroom as a way of training students to question both the composition and re-enactments of this social world, are discussed. And yet these possibilities for engaging socially just pedagogy are also fraught with tensions, challenges and constraints. Most notably, how do we engage the often affective disturbances that accompany moments/practices of disturbance? It is argued that socially just pedagogies must, in the end, strive to incorporate the affective domain, both in the formative and summative processes of teaching and learning.

Resources for Teaching and Learning in Engineering: A Panel Discussion

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Introduction

Increased managerialism within higher education has led to the location of teaching and learning success within questions of the allocation of resources. More often than not, these resources are economic: they take the form of money, staff, laboratory space, classrooms, bandwidth and so on. In this panel discussion, we seek to reclaim the notion of resource, and theorise it such that it not only includes economic considerations, but also considers notions of curriculum, the lecturer and the student. For each of these three notions, we draw upon anecdotal experience in the form of specific case studies so as to theorise how the notion of resource can be productively reclaimed for thinking about teaching and learning, in engineering specifically. In each part of the discussion, we also offer critical questions for consideration on the part of engineering educators.

Resources represented in the curriculum

In the initial section of this panel, we examine resources that are formally represented within the curriculum. Drawing on a case study of a second year Dynamics course within a mechanical engineering degree programme, we explore the notion of curricular resources.

From an institutional perspective, the Dynamics module is a resource drawn upon in service of obtaining the larger qualification. Implicit in this notion is the idea of progression from one level to another. Teaching within the course is predicated on students having completed other modules and thus having obtained other curricular resources (both content knowledge and skills or attributes). In turn, students enter subsequent courses with the necessary resources gained from the Dynamics module. Through their progression in the mechanical engineering degree programme, students develop fluency in disciplinary resources, and undergo a process of transformation (from novice to expert; from the self to the self that knows more; from the self to the self that can do more in the world).

Based on this, we identify categories of resource that are embedded within the curriculum as a whole, and within each course, and which are measured in course and program outcomes:
- curriculum resources,
- content knowledge resources, and
- student attribute resources.

When we consider a Calculus course, we can understand this course as a credit towards obtaining a degree (a curriculum resource), as providing prerequisite knowledge for Dynamics (a content knowledge resource), and as developing mathematical reasoning (a student attribute resource). The relative value associated with these different resource categories depends on the vantage point of the observer (e.g. accreditation body; Dean; instructor; student) and the activity in which they are engaged (e.g. tutorial; examination; job interview).

It should be borne in mind that there are additional resources which are not explicitly required in the course study guide or prerequisite chain but which are important for teaching and learning. For example, students' comfort with asking peers, tutors or instructors for help correlates with their conceptual gains during the semester. Furthermore, in Dynamics, it is assumed that all students have

fluency with mathematical concepts like trigonometric identities and simple geometric reasoning: however, these are taught unevenly across the secondary schooling system. Finally, the notion of resources also helps us to consider how, in many courses, class examples build on assumptions about students' experiences and prior socio-cultural resources. When a lecturer says "Imagine you are walking from one side of a boat to another", that lecturer is deploying prior experience as a resource for teaching and learning but, in so doing, may be exacerbating resource inequalities.

The critical questions raised by this section of the discussion are:
* What (hidden or explicit) resources are built into modules and programmes?
* How does assessment interact with these resources?
  How can resources be deployed in service of curriculum (and personal) transformation and progress?

Tacit lecturer resources
Few will disagree with the fact that economic and physical resources enhance teaching and learning. For instance, it has been shown that providing learners with sanitation and meals will increase educational outcomes when these are not in place to begin with. Similarly, universities across South Africa (and internationally) have attempted to ensure that all students have access to a personal computer and free campus wifi. Furthermore, much funding and infrastructure has been devoted to providing instructors with better tools (improved Learning Management Systems, smart boards and the like). However, not all resources are physical: some are, in fact, uncountable. In this part of the panel, we consider resources for teaching as held by staff, with a focus on the extent to which resources may be tacit.

In this section of the discussion, we consider a case study of a younger lecturer taking over a second year chemical engineering course from a highly esteemed professor. In this case study, the professor had taught this particular module for over 30 years and was well known to students and alumni. An overview of the course content and previous performance revealed that his teaching outcomes were greatly improved by his reputation.

Education involves persuasion, and educators draw on rhetorical strategies, in addition to their knowledge of their subject matter. Aristotle codified three appeals in rhetoric: ethos, pathos and logos or, the appeal to ethics, emotion and reason. Although it may seem that it is only logos that should have any place in STEM education, reasoning is more persuasive if it contains all of these elements.

The appeal to ethics usually forms the basis for a persuasive argument: interlocutors need to establish their own trustworthiness. When an educator has built a reputation on a particular subject, there is a tacit acknowledgement of their own trustworthiness: an esteemed and well-regarded professor may be more likely to inspire belief in their teaching and recommendations than a less well-known member of staff delivering the same lecture. Yet, staff resources are often overlooked in the assessment of lecturer performance. People learn better when they trust their teacher, and have a clear sense of what is to be expected within a module. An appeal to emotion is also important, and also largely remains tacit. Students often give accounts of being afraid of letting lecturers down when they believe that the lecturer in question takes active emotional care for the outcomes students achieve. People learn better when they experience an emotional bond with their teacher.

As such, trust in and care from teaching staff are important tacit resources within teaching and learning. However, tacit resources brought to bear on teaching and learning by an individual lecturer

can come to influence entire departments. Just as individual lecturers establish and build trust and emotional rapport with students, so too do departments, faculties and institutions. For example, a large bank of old examination papers becomes a resource for students trying to understand the assessment styles and strategies of particular lecturers. Similarly, esteemed professors such as those in the present case study can have far-reaching influence across a department.

The critical questions raised by this section of the discussion are:
* How do individual lecturers establish their own trustworthiness in the eyes of their students?
* How can individual lecturers demonstrate care for students' educational achievement?
* How can one characterise tacit resources of trust and care within entire departments, faculties and institutions?

Students' semiotic resources
Students do not enter the engineering education experience as blank slates. Instead, they bring with them a myriad of prior experiences and meanings. In this section of the panel, we consider how these prior experiences and meanings can be harnessed as productive resources for teaching and learning in engineering. This is done by examining a number of cases in which student learning has been impacted upon (positively or negatively) by their prior experiences with meaning making.

Individuals represent meaning using the variety of semiotic resources at their disposal. As students gain disciplinary expertise, the range of semiotic resources upon which they can draw expands. For example, lecturers often complain about students' tendencies to incorporate so-called SMS speak into their written reports. This is an instance of students transferring meaning-making practices from one domain to another due to the fact that the students may not, as yet, have acquired mastery over the expected meaning-making practices. In this instance, the imported meaning-making practices are incompatible with those that are expected, and the students' attempts are (generally) met with censure. Similar examples can be drawn from other representational modes, such as drawing, mathematics and diagrams.
At the same time, meaning is represented through technologies, and students' familiarity with these technologies impacts upon the success with which they are able to produce expected meanings. These technologies range from mundane (MS Word, calculators, drawing equipment) to highly sophisticated (CAD software applications, 3D printing).

Attention therefore needs to be given to which semiotic resources (and semiotic technologies) are expected from engineering students and how the development of these resources (and the development of proficiency in the technologies through which they are made manifest) are integrated into the formal curriculum. Furthermore, attention needs to be given to how the representational resources that students bring with them can be recognised within university engineering education. Students' representational histories are rich with meaning-making potential and accessing this richness may require an expansion of the traditional genres and ways of meaning-making privileged within higher education. This does not need to involve replacing traditional genres, but using alternative genres and practices to scaffold student participation in traditional meaning-making practices.

The critical questions raised by this section of the discussion are:
* What are the semiotic resources privileged within engineering education?
* What are the semiotic technologies which engineering students must master in order to be successful in their meaning-making efforts?

* How can the semiotic resources that students bring with them be recognised and deployed within formal engineering curricula?

Conclusion

In this panel discussion, we deploy the notion of resources to consider questions of teaching and learning. In so doing, we demonstrate that resources are not merely economic. Instead, they are tied to socio-cultural practice and to personal and institutional histories. Resources can be semiotic as well as interpersonal, and are embedded in curricular and departmental frameworks. The questions we pose can assist individual lecturers and entire departments to consider how resources (viewed in our expanded sense) are allocated and deployed within engineering education.

Exploring educational sites from the perspective of indigenous knowledge systems: a case study of poetry

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The panel will consist of Professors Denise Newfield (SLLM, Wits) and Deirdre Byrne (Institute for Gender Studies, UNISA), Soorie Naidoo (English Studies, UNISA), Arushani Govender (Masters student, WITS) and two poets (Katlego Kano Shoro (Wits Art Museum) and Raphael d'Abdon (English Studies, UNISA). The intention is to put up for critical scrutiny the overall thrust, theory and methodology of the project, provide interim findings from the pilot project, and present poetry to exemplify aspects of the project, according to the structure indicated by the sub-headings below.

General overview of the project, its aims, methods and theoretical frameworks
Prof Denise Newfield

This panel addresses questions of curriculum and pedagogy in South African education at the present time through a new poetry in education research project in the field of Indigenous Knowledge Systems (IKS). The project speaks in conceptual and empirical terms to crucial educational issues of our time – social and cognitive justice education and the decolonisation of the curriculum through processes of indigenisation of knowledge. Although the site of implementation is limited to the South African secondary school and, in particular, literacy, language and literature classrooms, the issues are pertinent to education at all levels, and the research will have both practical and theoretical implications for higher education. Questions put forward are: What does it mean to indigenise a curriculum? Why indigenise a curriculum? What pedagogies and forms of assessment are appropriate to indigenised educational programmes? The case of South African poetry will be used to explore these questions: What does it mean to say that contemporary South African poetry is an indigenous knowledge system? How does it differ from western forms? Are there any similarities between them? The panel will present its preliminary findings on these issues. Conceptual and methodological issues and problems arising from empirical investigations in a range of sites, including interviews with indigenous knowledge practitioners and holders, will be presented. The panel will draw on scholarship from a range of fields that pertain to the research study: the field of indigenous knowledge systems (eg Msila and Gumbo 2016; Nakata et al 2014), decolonial theory (eg Mignolo 2011), multimodality (Kress 2010; Stein 2008); poetry in education (Newfield and Maungedzo 2006; Bryan and Styles 2014), and post-qualitative research methods (eg Barad 2007; Deleuze and Guattari 1987; Kuby and Christ 2017).

Structure of the panel
Since our research is collaborative and our research team inter-disciplinary, crossing the divide between theory and practice, the panel will consist of two researchers, an educator, a postgraduate student as well as two poets who will perform in order to illustrate some of the points.
We welcome the opportunity to put up for critical scrutiny the work of our three-year NRF-funded project in South African contemporary poetry as an indigenous knowledge system.

Interim findings on the value of contemporary South African poetry as an indigenous knowledge system in classrooms
Soorie Naidoo and Deirdre Byrne

South African learners in twenty-first century schools are in a disjunctive position vis-à-vis curricular matters, as are students in higher educational institutions. Both have inherited a Western-centred educational system, complete with governance structures, curricular practices and pedagogies that were not designed for the South African context. We will present the interim findings of our educational IKS sub-groups doing fieldwork in two pilot schools, with a focus on poetry practices in the area of the literature curriculum. In spite of reforms since 1994, we anticipate that this will be dominated by texts and models of analysis produced in the global North. If so, scholarship (eg Mbembe 2015, Msila and Gumbo 2016) maintains that these often carry cultural meanings which are challenging for South African teachers and learners to negotiate. The result, all too often, is that teachers and learners experience poetry as "difficult" and may even avoid teaching and studying it (Andrews 1991; Newfield and d'Abdon 2015). Our project holds that, if this is found to be the case, these meanings will need to be revitalised by an infusion of indigenous knowledge in the form of contemporary South African poetry. Our project aims to research whether and how poetry practices and protocols that arise from the communities of practice around our research sites could be infused into the poetry curriculum through reconceptualising poetry as a multi-modal genre involving more senses and media than only the printed page. In this way, the focus might be shifted away from the perception of poetry as being restricted to the text, and towards an understanding of poetry as a practice that exists in vital and energetic ways in performance in local communities. Our research will investigate whether infusing indigenous poetry into existing curricula and pedagogies in the classroom might encourage teachers and students to enjoy poetry more and develop increased self-expression and knowledge production in language, both in oral and written forms.

Interim findings on the concept of South African poetry as an indigenous knowledge system
Arushani Govender (postgraduate student, WITS)

This panel presentation will reveal preliminary findings about an investigation into indigenous poetry as a knowledge system in South Africa. This will include interviews with indigenous poets, excerpts of their written or performed poetry and a brief analysis thereof. Indigenous knowledge holders will also be interviewed and studied alongside indigenous poetry practitioners, bringing forward and addressing the questions: Through what criteria can a poem be defined as indigenous in a contemporary, multi-cultural South African context? What is the difference between an indigenous knowledge holder and an indigenous practitioner? Why is it significant to understand the difference? Through drawing conclusions from the aforementioned research, the speaker will raise an argument about why indigenous poetry can be considered a knowledge system; focusing on the types of knowledge produced, the value of that knowledge, and how the production of that knowledge becomes systematic via cultural practice. In order to demonstrate the latter point, the production of indigenous knowledge will be read in conjunction with the indigenous culture from which it originated. It is thereafter necessary to examine the similarities and differences between indigenous poems and their role in society created from differing indigenous cultures, to propose a way of reading indigenous poetry outside of their cultural spheres, and in the broader South African context. The South African context does not, however, exist in isolation from its colonial scaffolding. Therefore, a brief comparison between indigenous poetry and traditional Western poetry in the secondary school curriculum and tertiary curricula will be executed, providing insight as to what indigenous poetry offers that Western poetry does not. The presentation aims to conclude by

promoting indigenous poetry as a useful content to decolonise the English language curriculum at secondary school and tertiary institutions.

Poetry Performance
Raphael d'Abdon

Spoken word poetry is poetry read aloud or recited in front of an audience, but it is also an umbrella term that condenses the sum of a wide variety of poetry styles. The so-called "spoken word poetry movement" (Miazga 1998) is the twenty-first century adaptation and amalgamation of several poetry movements that flourished in the previous decades. In the specific context of South Africa, it also incorporates indigenous oral poetry traditions such as izibongo, dithoko, difela, diboko, etc. and the "resistance poetry" popularised during the anti-apartheid struggle by artists such as Ingoapele Madingoane, Oswald Mtshali, Sipho Sepamla, and Wally Mongane Serote, among others. This spoken word performance offers an example of poems whose style can be traced in the traditions listed above.

Poetry Performance
Katleho Kano Shoro, ""Kano""

The poem to be performed is called ""Living Libraries"". It is about 3.5 minutes long and centres on the idea that there are different spaces where we can access knowledge, including people around us, our environments, previous poets and writers, our ancestors etc. It shows how the knowledge that we access can come in different forms: feelings, dreams, conversations and learning, some more than others, some all the time and others some of the time. The poem will be used to exemplify themes that are relevant to the project, as a means of breaking down the binary opposition between "academic" and "creative" textuality.

Research on teaching and learning at the Central University of Technology (CUT), South Africa

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Mabokang Monnapula-Mapesela

Although teaching and learning were, and still are the *raison d'etre* of traditional universities and modern higher education, the Scholarship of Teaching and Learning (SoTL) continues to fight for its legitimacy with research and, more recently, innovation continuing to dominate the higher education sector nationally and globally. This challenge is equally experienced at the Central University of Technology (CUT).

SoTL at the Central University of Technology (CUT) is the product of a generous Teaching Development Grant (TDG) from the Department of Higher Education and Training (DHET) in 2014. Located in the Centre for Innovation in Learning and Teaching (ILT), CUT SoTL was launched in February 2015 with the focus on creating awareness about this often neglected area. The launch focussed on the extent to which academics are aware of the centrality of SoTL as part of day-to-day practice within their disciplines. Our first strategy was to organise colloquia facilitated by various national and international experts in the area of SoTL. These colloquia also served the purpose of canvassing consensus among CUT academic staff about SoTL and its relevance in the everyday classroom practice.

The proposed round table discussion teased out issues relating to SoTL in the specific context of higher education in South Africa and at CUT as a university of technology, with teaching as one of its core mandates. The issues and foci of our discussion are firstly, to provide a brief overview of SoTL, including the challenges of the teaching continuum in SoTL at CUT. This entailed an analysis of the status of SoTL at CUT and perceptions of the various stakeholders of how SoTL fits into the institution's teaching and learning framework. Our preliminary experience is that, as in other institutions nationally, teaching and learning was, and still is, regarded as less important compared to research and innovation. Despite this perception about the status of teaching versus that of research, we seem to be making good progress through our SoTL mentor-mentee programme. In view of the growing support in different faculties, we are exploring the possibility of having SoTL as one of the categories for the Vice- chancellor's wards.
It is also notable that, although CUT has prioritised the promotion of teaching and learning through SoTL by, for example, creating the position of DVC Teaching and Learning, limited resources undermine institutional efforts to develop SoTL as an area of research. Thus, the launch only became possible through the generous TDG from DHET in 2014. This funding has made it possible to create a mentorship system specifically focussing on developing Groups of Community of Practices (GCPs) to research the quality of teaching and learning. These GCPs will be revitalised in 2017 to drive proposed University conversations to develop a shared framework on a Quality Enhancement Model (QEM) for teaching and learning. We are interested in finding out how our sister institutions went about this process.

Our second focal point is the notion of a teaching continuum which we discovered as we interacted with SoTL mentors and mentees. In view of the specific context of higher education in South Africa and CUT, it became clear that different academics participating in the SoTL project at CUT are at different stages of the continuum and are clearly at different levels of investigation into teaching and learning. The operative is therefore recognition of the teaching continuum and levels within particular contexts of institutions.

Thirdly, it is necessary for those involved in promoting SoTL to raise critical questions concerning why academic staff in higher education should engage more meaningfully with SoTL. Our experiences with SoTL mentors and mentees suggest that SoTL encourages academics to reflect on their practice, to ask relevant questions about what they teach, why they teach in certain ways, and what theories underpin their practice, in order to improve their teaching and learning. We would be interested in hearing how our colleagues at other institutions are dealing with this question.

Fourth, we are interested in knowing whether involvement in SoTL makes any difference. While it cannot be generalised at this stage, our experience so far suggests that senior staff members who have been participating in SoTL since its establishment, have formed core groups in teaching and learning in their respective faculties. For example, the VCs teaching and learning awards in the last two years were awarded to academics in the Faculty of Engineering who participate in SoTL even though SoTL is still to be officially recognised as a category in the VCs awards teaching and learning awards. Furthermore, the research outputs by members of the SoTL group have generally increased the institution's research outputs.

Fifth, and perhaps the most complex issue that we are currently grappling with is how the impact of SoTL can be measured. Our experience suggests that SoTL has had an impact leading to a sudden increase in the research outputs for 2015/16 at CUT. Furthermore, the majority of participants in the SoTL project are now able to engage with SoTL, including reflecting on their practice. This area will be explored in more detail in 2017. One of the things which we are currently grappling with is the extent to which involvement in SoTL is improving academics practices and students' success.

Accordingly, the proposed round table discussions are intended to create the opportunity to exchange ideas with participants on some inroads we are making to reclaim SoTL as part of higher education, especially at universities of technology (UoTs). The discussion will provide an opportunity to reflect on our experiences as staff members involved in SoTL, how SoTL could influence the practices of academic staff and the possible increase of research outputs through SoTL.

It is hoped that the discussion will generate conversations around the necessity of recognising the teaching continuum and levels of investigation into teaching and learning through SoTL narratives in order to accommodate staff with very different experiences and levels of writing and research.

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Development of SOTL Activities amongst post PhD researchers in a centre for higher education

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This panel presentation will focus on activities relating to the scholarship of teaching learning currently being carried out by the Post PhD Research Group in the Centre for Higher Education Development (CHED) at the University of Cape Town. This group has developed out of a three year plan of the Faculty Research Committee in CHED aimed at increasing research output and strengthening research capacity in educational development practice within the faculty. Consistent with the transformation goals of the faculty and UCT, this plan seeks, in particular, to support the research capacity of black and female researchers. I was one of two senior scholars appointed to assist the faculty in achieving their goals and my responsibilities have been to mentor academics in CHED with a PhD who are developing a post PhD research focus. A further responsibility is to contribute to other research capacity development activities offered by the Faculty Research Committee eg. collaborative research projects and grant writing. Through regular meetings and writers' circles the Post PhD Research Group has developed into a supportive research community. We are building the capacity of members of the group to take the research mentoring forward beyond the term of the senior scholar.

The research interests of the group of eleven Post PhD researchers cover a range of topics in the Scholarship of Teaching and Learning e.g. an investigation of the metacurriculum in science, discourses valued in undergraduate biology assessments, first year experience, factors affecting the success of students who are first in the family, digital approaches to teaching reading, making tacit literacy practices explicit in teaching the sciences, the challenges of changing university contexts for professional higher education, postgraduate literacies particularly journaling and specialist vs popular genres for writing in the sciences, using Legitimation Code Theory to evaluate the National Benchmark Tests, and analysis of policy/public statements by universities on sexual identity. These projects draw on a wide range of research theories and methodologies.

As Senior Scholar leading the Post PhD research group, in the panel presentation I will introduce this Post PhD research project, describe the mentoring   and the development of a research community. Only two members of the group are able to attend the conference, therefore I will briefly describe the research projects of those unable to attend. Roisin Kelly will then present research into the discourse of summative assessments in biology and Dale Taylor will present her work on the metacurriculum.

Discourses for success in first year biology
Roisin Kelly

Despite increases in higher education participation rates in South Africa, the percentage of students graduating in the regulation time for their degrees (27%) leaves a lot to be desired. Degrees and diplomas in Science exhibit particularly low completion rates for all students, with only 23% of students completing a BSc and 14% of students completing a diploma within the regulation time. Although there is an increase in graduation after 5 years, with 48% completing a BSc and 37% completing a diploma, a less than 50% completion rate in the face of the low overall participation rates seen in South Africa is a major cause of concern (Council on Higher Education 2013). In an attempt to address this attrition, several universities have incorporated interventions that address

content or knowledge gaps. While such interventions are critical in bridging the articulation gap, knowledgeable students may still fail if they cannot communicate their knowledge in ways valued by their discipline.   In science, many disciplinary literacy interventions remain focused on numeracy or on academic literacies in formative assessments such as report and essay writing. While such interventions are important, they often neglect the role that disciplinary literacy plays in high stakes summative assessments. In teaching disciplinary literacy, Moje (2007, pg 5) calls for us to be culturally responsive by attending to, among other things, the Discourses that students bring with them as well as those of the university and the discipline. While Discourse is a contested term, in this study I use Gee's (2008, pg 4) idea of Discourses as " ways of behaving, interacting, valuing, thinking, believing, speaking, and often reading and writing, that are accepted as instantiations of particular identities by specific groups ". These Discourses cannot be analysed separately from the ideologies with which they are associated. An ability to navigate such Discourses, especially in summative assessments, can mean the difference between progression and academic exclusion for many students. Therefore, the current study aimed to discern the Discourse valued in a first year biology assessment. Three short answer questions from a high stakes summative exam in a first year biology course were selected. A model answer for each question, as well as open coding of interviews with the lecturers who set them, were used to determine the lecturer-perceived literacy requirements of the questions. These together with the lecture notes and textbook were used to carry out a critical discourse analysis (Fairclough, 2003) of the answers of three students who obtained different grades. This presentation will focus on the discourse valued in first year biology summative assessments.

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Investigating the metacurriculum in first year courses in Science
Dale Taylor

The metacurriculum of a course is the sum of the messages which influence students' attitudes, approaches and success in the course. Dekle (2004) regards the metacurriculum as "an important driver of the culture of the university". The lecturer may be unaware of some of these messages while other messages may be conveyed intentionally. The intended metacurriculum might be conveyed by the integration of academic literacy teaching into course content, or the failure to do so. In the panel presentation, I will present the results of two studies which investigated the intended metacurricula of different courses in the Science Faculty at UCT. Both studies asked the question: what is the intended metacurriculum and how is it communicated? The first study focused on physics service courses and the second looked at courses in the Extended Curriculum Programme in Science. The first study focused on just one discipline with students drawn from Health Sciences, Engineering and Science . Whereas, in the second study, there was a range of different disciplines (biology, chemistry, earth science, mathematics and physics), with mostly the same group of students who were on the Extended Curriculum Programme. Each lecturer in the study mapped his/her intended metacurriculum, indicating both the content and the way in which he/she communicates it. The lecturers then met to workshop and refine their representations. A grounded analysis showed that the metacurricula include constructivist views of learning, self-image and identity in the disciplines, overall student well-being, and study strategies. The means of communicating the metacurricula vary according to lecturers' individual teaching styles, and include stories, current issues, quotes,

metaphors, and 'mantras'. The lecturers found value in sharing and analysing their ad-hoc additions to their courses in this way. Further studies could investigate student take-up of the metacurriculum.

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PAPER PRESENTATIONS

Skills teachers possess to enable them to implement an inclusion policy for learners with special education needs

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This paper investigates the pockets of good practice found in the skills teachers possess to enable them to implement an inclusion policy for learners with special education needs (SEN) in selected primary schools in the Fort Beaufort District, South Africa. The study adopted a qualitative research approach and employed a case study design. Eight teachers, ten principals, one provincial and four district officials were purposively sampled from ten schools. Data were collected using semi-structured interviews and analysed thematically. The findings of the study revealed that teachers implement inclusion of learners with SEN, despite the fact that the majority of them do not have qualifications and have not been trained in special education. It can be concluded that there are pockets of good practice of inclusion in some of the selected primary schools, particularly in poorer rural contexts. In view of the number of teachers who have not been trained in special education, and the fact that implementation of inclusion for learners with SEN is compulsory in schools, the paper recommends that there is good reason to conduct a needs assessment for effective in-service training programmes so that training can be provided to meet the urgent needs of teachers in primary schools.

An exploration of the role that formative assignments play in preparing Honours students to submit a research report

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Students in most South African universities are taught generic writing 'skills' that do not always match the requirements for writing within their disciplines (Jacobs, 2007). Generic advice about writing is particularly unsuitable for postgraduate students whose writing is inextricably linked to ways of knowing in their discipline (Layton, 2015). Unfortunately, not much is known about how postgraduate students should be supported to write in their discipline (Fergie, Beeke, McKenna, and Crème, 2011; Tobbell, O'Donnell and Zammit, 2010). During a B.Com Human Resources (HR) module, students were supported to tackle the most challenging aspect of the module, the research report, through writing a series of smaller formative assessments that were directly related to the final research report. The purpose of this research was to assess whether these formative assessments prepared students to submit their research report. In order to assess the contributions made by the formative assessments, I developed a framework for analysing how students' written assessments improved over the course of the module. While analysis of individual grammatical features is often used to examine written texts, this research is more interested in examining what the overall arguments and structure in the assessments reveal about the acquisition of writing in the discipline. The analysis of the students' assessments will be conducted in three parts. Firstly, I will examine whether or not students follow the prescribed structure, and if the deviations from the structure enhance or detract from the overall argument. Secondly, I will examine whether the formulation of the problem, and an explanation of the context of the problem, have become clearer in progressive assessments. Since knowledge in HR and other social sciences is drawn from multiple bodies of knowledge and is seen as more interpretive, the author must clearly locate the research problem in context (Hyland, 1999). Thirdly, I will examine how subsequent mentions of the research findings add to the body of HR theory and to practitioners' understandings of a particular challenge in industry. As the field as a whole and this particular department want to address the challenges of HR practitioners in industry, the goal of the research reports is to contribute to theoretical and practical knowledge (Goodier and Parkinson, 2005). The findings from this research will provide support and academic staff members with an idea of what challenges Honours students in Human Resource Management, and to some extent Honours students in the social sciences, face when writing their research reports. Recommendations, which will take the support that students received during the module into account, will also be provided. I hope that these recommendations will be used to inform the current writing support that support and academic staff members provide to Honours students.

Enlivening pedagogical methods in the classroom through visual arts

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The challenge of decolonising the curricula presents us with engaging more relevant methodologies of teaching and learning local content appropriate for transformation. How do we enliven curricula and pedagogical approaches that can engender a sense of belonging for incoming first year students and prevent polarising tendencies in the classroom? The arts are well positioned to disrupt the neat binaries and stereotypes and offer creative ways to explore patriarchal and colonial power relations. The arts provide safe and empathetic ways for incoming students to gain perspective of their situations from insider and outsider positions and develop a compassionate and enlarged view of the world.

Our presentation consists of two classroom strategies in the Visual Art Department at the University of Johannesburg. These approaches directly confront ways to make the first-year classroom a safer space and promote a sense of belonging and greater self-awareness among students. The first set of classroom interventions use participatory and experimental processes designed to mitigate risk and build cohesion. In our assessment, these strategies contribute to supporting incoming students with additional coping strategies.

The second part of the presentation will provide examples of the same first-year students artworks emerging from a curriculum-integrated project called "Who is (not) an African?" This printmaking project confronts aspects of diverse identities in the classroom using multi-modal approaches. Students are introduced to multiple methods of engagement and pedagogical approaches which include team exercises, group discussions in and outside the classroom, and PowerPoint and video presentations by senior students. First-year students were able to engage in debates with senior and post-graduate students dealing with themes of "whiteness" and " blackness" in their artwork, as well as attend a discussion with a doctoral student on an understanding of Post-African studies. To learn the technique of intaglio drypoint, they were tasked with doing a series of exercises by researching and then imitating the style of an "old master" (understanding the value of the past) and then taking a "selfie" with their cell phones and using the "old-masters" drawing style to re-interpret an expression of contemporary self. The final project required the students to interpret the theme of who is (not) an African by means of a self-portrait set in a specific context. Students' reflections on their own learning from this project as well as a visual analysis of individual works reveal how they see themselves in a process of 'becoming' within a decolonising political and educational landscape.

The presentation will include diverse voices from a student's own experience, a post-graduate teacher, the first-year programme coordinator and a teaching mentor.

Scoping epistemological pluralism in journalism education in Kenya

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In 2014, a special edition of Communication Theory called for a reassessment of de-westernisation of the academic field of communication studies. The special issue reflected on the broad conditions of intellectual production and proposed an epistemic shift in terms of what is being studied and researched; what is used as evidence; the range of theoretical perspectives that inform scholarly activity, and the culture that imbues communication teaching and research practices. Numerous scholars have called for the de-westernisation of journalism studies, arguing that alternative ways of understanding and doing journalism should be explored. They argue that the emerging field of journalism studies valorises a particular form of knowledge emanating from western epistemologies - based on neutrality, individuality and universality. The metaphor of the Global North and Global South is often used to situate this critique.

Building on these discussions, this paper examines the academic culture of journalism education in Kenya to analyze its capacity to promote "epistemological pluralism". Drawing on Boaventura de Souza Santos' ecologies of knowledge, the paper investigates whether journalism education in Kenya might be reinforcing a form of epistemological dominance whereby the "Eurocentric remains inherited from colonialism". It also investigates whether this has contributed to a new hegemony, which is marginalising indigenous languages and communication practices.

According to De Souza Santos, a geographical region does not necessarily bound the Global South. "The South is a metaphor of human suffering caused by capitalism and colonialism at the global level, and a metaphor …of the resistance to overcome or minimise suffering". He argues that the South can reside within the North "in the form of excluded, silenced and marginalised populations such as…ethnic and religious minorities". Similarly, the Global North can reside in the Global South.

Through an examination of the rules, academic values and practices of journalism educators, this paper aims to:
1. Articulate the epistemological traditions informing journalism education in Kenya.
2. Analyse whether the academic culture of journalism education in Kenya reinforces a particular way of knowing and doing journalism.
3. Evaluate the implications of this culture in terms of the process of production and valorisation of knowledge, and what constitutes legitimate journalism.
4. Suggest possible interventions that could promote a more pluralistic framework to promote what de Souza Santos calls 'cognitive justice' which acknowledges different forms of scientific knowledge and promotes interdependence between scientific and non-scientific knowledges.

The research process will involve a review of admission and entry requirements, language of instruction, pedagogical approaches and theoretical approaches canvassed in journalism curriculum across four universities in Kenya. The universities will be selected on the basis of enrolment numbers in journalism programs.

Conceptions of teaching and learning in a medical specialist training program: A phenomenographic study in Obstetrics and Gynaecology

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Conceptions of teaching and learning have a profound influence on teachers' approaches to teaching and students' approaches to learning respectively. The study adopts a constructivist epistemological viewpoint in that knowledge is constructed in the course of human beings interacting with the environment. Using a phenomenographic approach, the study explores conceptions of teaching and learning within a select group of clinical trainers and trainees in the discipline of obstetrics and gynaecology, often characterised by tension between service provision and academic activities.

Five qualitatively different conceptions of learning and three conceptions of teaching, from simplest to complex, are described. The study goes further to offer some insight on possible outcomes when these conceptions interact, using Vermunt and Verloop's concept of congruence and friction. Knowing these qualitatively different conceptions, as well as possible outcomes when these different conceptions of learning and teaching interact, has the potential to assist both clinical trainers as well as programme directors in the design of teaching and learning activities within a medical specialist training environment, as well as providing a possible approach to the training of clinical specialists in general.

A total of 21 participants, made up of 11 clinical trainers (consultants) and 10 specialist trainees (registrars), took part in semi-structured interviews which lasted from thirty minutes to an hour, during which time participants' conceptions and experiences of teaching and learning were explored. The study adds to the existing body of knowledge on teaching and learning in postgraduate education, specifically by those utilising work based learning enviroments.

Decolonising universities in South Africa: Backtracking and revisiting the debate

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We need to start thinking differently so that we can understand deeply.

Intellectual formations rooted in social movements have played a central role in generating, shaping and normalising new academic discourses in South African academia. Once again, as in the aftermath of the school crisis of the 1970s and 1980s, student protests have triggered a new intellectual movement striving for more nuanced approaches to education. This particular development points to the need to step back and backtrack our discourses and paradigmatic challenges as we confront the agenda of transformation in universities. This paper examines the prevailing modes of thinking that permeate such challenges and their implications for the construction of intellectual and political identities in South African universities. This is happening within a peculiar academic environment. The vestiges of radical neo-Marxist discourses that dominated the anti-apartheid scholarship in the 1970s and 1980s have long subsided and, as argued elsewhere, neo-liberalism (whether in the form of constructivism, postmodernism or other forms) has asserted its hegemony in all domains of political, social and economic life. To borrow from Torres, it has become 'the new common sense' in South Africa. We have had to contend with alternative understandings of the South African situation and new theories of change within this general framework.

The paper posits two interrelated claims with profound epistemological and theoretical implications for university transformation in South Africa. First, it shows how intellectual formations rooted in social movements have played a central role in generating, shaping and normalising new academic discourses in South African academia. Second, the paper argues that the new intellectual movement, inaugurated by student protests, points to the need to rethink the future of higher education in the country within a horizon of possibilities different from the neo-liberal paradigmatic tradition that for many years dominated the transformation project. Third, the paper argues that the new student movement offers a unique and unprecedented opportunity, not only for reclaiming the culture of critical scholarship that dominated progressive circles in South African higher education in the 1970s and 1980s, but to harness a new political epistemology and an emerging paradigm shift embedded in current student and academic intellectual discourses.

Characterising this political epistemology are three important aspects: (i) the emphasis on emancipatory ideals and political practices in all structural and cultural domains of university institutional life (as in Rhodes must fall), (ii) the centrality of the poor and workers as fundamental components of transformation (as in fees must fall and stop outsourcing); and (iii) the conception of transformation as decolonisation denoting transformation dimensions and analytical praxis beyond the boundaries of current social justice rhetoric. Major assumptions underpinning this intellectual movement include the assumption that missing in the transformation discourse is the notion of 'decolonisation', the assumption that decolonisation and transformation are not mutually exclusive or contradictory concepts, but that they can co-exist and are compatible and complementary processes, and the assumption that, without decolonisation, social justice cannot be fully fulfilled. Against this background, the paper proposes a conceptual framework for thinking about decolonising the curriculum.

Enhancement of transformative learning in large classes of leaners in Chemical Engineering education

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Chemical engineering education in the universities/colleges involves the combination of cognitive learning theory and experiential learning theory to ensure transformative learning. These theories form part of the conceptual frameworks that describe how information is absorbed, processed, and retained during chemical engineering education and training. While the application of cognitive learning theory in engineering education focuses on understanding the learners with regards to the complexities of human memory, experiential learning theory aims at developing in the learners the societal technical observation and community commitment skills necessary to shape and transform them into competent young engineers. In addition, transformative learning theory seeks to explain and enhance how the learners revise and reinterpret information acquired during engineering education. Therefore the combination of cognitive learning theory and experiential learning makes the application of transformative learning effective in chemical engineering education. In addition, transformative learning provides an individual with the opportunity to acquire, experience and question some assumptions during the learning process, and to reflect on them at the later stage. However, the degree of enhanced transformative learning in engineering education is forestalled by the size of class we have in our universities today. Therefore, it is essential to know the effects of large classes on transformative learning in chemical engineering education and how these effects could be minimised in order to promote transformative learning. In this article, the effects of large classes on effective transformative learning in engineering education are enumerated, and suggested solutions to alleviating these effects are discussed.

Freire, Lessem and Schieffer, and bell hooks influences on my teaching, learning and research integration

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I seem to come back to these authors work in my never ending quest of finding ways to improve and change my teaching, learning and research praxis for students and the community. I will provide reflections on their various writings, and on Lessem & Schieffer's models, that resonate and inspire in different ways. They are:

Paulo Freire
-        Pedagogy of Commitment (2012)
-        Daring to Dream: Towards a Pedagogy of the Unfinished (2007)
-        Pedagogy of Indignation (2005)
-        Pedagogy of the Heart (1997)
-        Pedagogy of Hope (1994)
-        Pedagogy of Freedom: Ethics, Democracy, and Civic Courage (1989)
-        Pedagogy of the Oppressed (1968)

bell hooks
Teaching to Transgress: Education as the Practice of Freedom (1994)
Teaching a Community: A Pedagogy of Hope (2004)

Ronnie Lessem (2017)
-        Embodying Integral Development: A Holistic Approach
-        Innovation Driven Institutional Research: Towards Integral Development
-        Awakening Integral Consciousness: A Developmental Perspective
-        Community Activation for Integral Development

Ronnie Lessem (2016) The Integrators: The Next Evolution in Leadership Knowledge and Value

Ronnie Lessem & Alexander Schieffer
(2014) Integral Renewal: A Relational and Renewal Perspective
(2010) Integral Research and Innovation: Transforming Enterprise and Society

Ronnie Lessem, Paul Chidara Muchineripi and Steve Kada (2014) Integral Community

Alexander Schieffer & Ronnie Lessem (2014) Integral Development: Realising the Transformative Potential of Individuals, Organisations and Societies

Ronnie Lessem, Alexander Schieffer, Samuel D. Rima (2013) Integral Dynamics: Political Economy, Cultural Dynamics and the Future of the University

A social justice approach towards the support for SOTL in the South

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The paper explores the implications of a social justice informed approach to SOTL, as a central thread of a national professional learning programme for academics, the South African Teaching Advancement at Universities (TAU) Fellowships Programme. TAU is seeking to build a cadre of academics as scholars, leaders, change agents and mentors in teaching and learning in a wide range of disciplinary fields, across all South African higher education institutions, and was piloted from January 2015 to July 2016. As part of TAU, most participants undertook a SOTL project, in which they researched an educational issue in their own institutional environment.

The paper will explore the attempts by which the convenors sought to create participation with parity within the context of the TAU project, specifically with respect to SOTL projects in which the participants engaged. This included support in the form of material inputs, placement in supportive enquiry groups, and the respect shown throughout for different social groups. To what extent, then, was the TAU programme appropriate to support participation in SOTL, in the South, and by what means could this support be further enhanced?

To answer these questions the presentation will draw on documentation and feedback from the first cycle of implementation, including the participants' reports on their SOTL projects, and their reflective reports on their experience of the programme.

Enhancing student success in South Africa: An interdisciplinary model for profiling Success Advisors

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At South African universities, the role of advisors is not easily defined and there is little literature about the attributes and characteristics required of those who occupy these positions in this country. Conversely, the USA seems lightyears ahead, with formalised advising structures in place since the 1930s. This paper looks at profiling Success Advisors for contexts similar to that in South Africa. The authors have developed and will share a seven-tiered model for identifying and profiling suitable Success Advisors, discuss the model's implementation in the South African context, and provide mitigation strategies to address challenges faced by existing advisors.

The model focuses on the following dimensions: Academic Support, Coaching and/or Mentoring, Co-Curricular Support, Cultural Quotient, Data Analytics, Emotional Support and Counselling, and Socio-Economic Support. Recommendations regarding requisite institutional support for advisors, and the necessity for roles of this nature to be professionalised to successfully support student retention and success, will also be addressed. The paper aims to build a strong case for the value of professionalised advising in South African higher education. The role of the advisor and the sensitivity this person needs to display will be explored in an attempt to close achievement and expectation gaps between student sub-groups based on race, ethnicity, and/or income.

The authors use an action-research based methodology and have established a community of practice in which advising commonalities, successes, and challenges are shared and discussed, often resulting in mitigation strategies to address and resolve their concerns and inform future practice. They themselves are Success Advisors in three of the five faculties at a large South African university and their collaborative approach to advising has ensured best practice and improved advising across their individual faculties. Evolving this model of collegial support and enhancing the quality of advising at their university, along with the evaluative dimension of their collaborative, inter-faculty approach to advising, has resulted in this paper and their seven-tiered model for profiling suitable candidates to assume Success Advisor roles.

Guiding their way: using Indigenous Knowledge Systems in tutoring and mentoring programmes in higher education

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The paper focusses on first-year students' experiences of their tutoring and mentoring sessions with senior students and how these sessions have assisted them to adjust to higher education.

Institutions of higher education in South Africa are presently facing transformation challenges. This has to redress past inequalities, serve a new social order, meet pressing national needs and respond to new realities and opportunities. The University of Johannesburg is not an exception to the transformation process, a process that has far reaching implications for educational thought and practice. If higher education is to attain the above goal, there is a need for a philosophical framework that respects diversity, acknowledges lived experiences and challenges Western forms of universal knowledge. Before an institution can take steps to enhance student success, it must first understand who its students are, what they are prepared to do academically, and what they expect from the institution and themselves. It further needs to take into consideration the current student profile within the institution which is predominantly African first generation students from poverty laden backgrounds who are not as prepared for higher education as expected, and are faced with adjusting to a cultural capital and an institutional habitus that are alien to them.

Higher education institutions must take into consideration that the first year is an opportunity for both students and academic institutions to create opportunities of learning (Leibowitz, van der Merwe & Schalkwyk, 2009). According to Tinto (1993), the first year of university is the most likely year for a student to leave university. It is against this background that, in this paper, I argue that by using the tutoring system, paired with mentoring in the first year of studying, we can create experiences that are intentionally inviting (Shaw & Siegel, 2010) to first year students. This can be achieved by drawing from Indigenous Knowledge as a system of African knowledge. This will enable us to provide a useful philosophical framework for the construction of empowering knowledge that enables students to participate in their own educational development. If managed correctly, the tutoring and mentoring programme can lead to the reduction of the 33% percent student drop out rate in the first year of study (CHE, 2013).

Reflections on a 'puzzle' assessment implemented in the Postgraduate Diploma in Higher Education at Wits Education

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The PGDip(HE) at Wits University makes use of performance-based assessments that involve 'real world application of knowledge and skills' (McMillan 2015, 55) and gives students, who are university lecturers, opportunities to bridge the gap between 'abstract declarative knowledge' in higher education and 'professional knowledge' (Biggs 2011, 97). Assessment strategies in all course modules gauge students' capacities to reflect on and apply concepts in the field of higher education to their own disciplinary contexts. This paper analyses one particular assessment, the 'puzzle', adapted for the 'Assessment for learning' module, drawing on the assessment principles of constructive alignment (Biggs, 2011) and course congruence (Ashwin, 2015).

Participants engage with a specific assessment challenge that they face in their own teaching context and are required, through various tasks linked to the 'puzzle', to constantly reflect on difficult issues as new knowledge is presented. In so doing, they select, explain, analyse and perform aspects of their critical question for addressing the learning outcomes of the module. Our reflection on how students have engaged with the puzzle assessment over the past two years shows that they have begun to view assessment as an intrinsic part of the learning process, closely aligned to their everyday realities (Carless, 2015). Furthermore, by involving students in the co-construction of the 'puzzle' task rubric, the course presenters have been able to model the design of 'learning oriented' assessment criteria (Carless, 2015) using taxonomies like the SOLO Taxonomy (Biggs, 2011).

We argue that this assessment task has the potential to transform students' understanding and application of assessment principles as they grapple with a disorientating assessment dilemma, viewing it from multiple lenses and formulating solutions to the problem. The 'puzzle' has created an authentic learning experience that enhances students' capacities to bridge the gap between theory and practice.

Diagnostic assessments for contextualising liminal space and developing scaffolding for a new engineering curriculum

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This paper arises from ongoing research undertaken during the planning and design of the new Bachelor of Engineering Technology (BEngTech) (Electrical) curriculum at the University of Johannesburg. The presented research focuses on strategies for diagnostic testing (DT) in formative assessment. DT is intended to assist with investigating the intra-discipline-specific liminal space and transitional barriers to students' progress through more complex levels of understanding (described by the SOLO Taxonomy). In this paper, suitable DT techniques are reviewed and a framework is developed for a long-term investigation into the aforementioned scaffolding issues.

The framework is developed for the specific case of the Electrical Machines component of the Power Engineering curriculum. It is also shown in this paper that the framework requires identification of these scaffolding issues within a broader context that encapsulates various aspects of epistemological and ontological access including cognition, diversity and socio-cultural issues. These interrelated aspects are conceptualised in the form of layers within the main undertaking of developing effective scaffolding. A key reason for focusing on scaffolding is that the new BEngTech degree, in comparison to the National Diploma, is set at a higher NQF level (NQF 7) and has a higher standard associated with its graduate attributes/exit-level outcomes as stipulated by the Engineering Council of South Africa (ECSA). Therefore, the increased levels of complexity in terms of the intended learning outcomes (ILOs) require, not only an adjustment of the syllabus, but suitable alignment of the teaching and learning activities as well as the assessment tasks.

This investigation into scaffolding is intended to inform these complex and long-term tasks involved in the planning and design of the curriculum. Furthermore, this paper analyses and critiques the proposed framework in order to identify possible shortcomings and potential implementation challenges. The presented research will not only contribute to the knowledge and practice in threshold concept investigation and diagnostic testing in formative assessment but will also provide long-term strategies to complement the recent paradigm shift in Engineering Technology Education.

Linking induction to professional development

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The paper is based on a research study that arose from an initial concern that newly appointed academic staff, who are generally not required to have a teaching qualification, are increasingly expected to engage in the scholarship of teaching and learning early on in their careers. Apart from their lack of experience and knowledge in higher education teaching and learning, the focus of their professional development may also be aimed more towards their discipline specific research rather than the teaching part of their career. The main research question for this study was therefore: how can SoTL be advanced during the professional development of newly appointed academic staff at higher education Institutions? The manner in which newly appointed academic staff are currently exposed to SoTL during their induction programmes at SA universities was investigated through qualitative research methods.

Interviews with Academic Development staff from South African universities were conducted telephonically and face to face, starting at the 2015 HELTASA conference. A total of thirteen interviews were conducted, transcribed and analysed using Atlas.ti™.The main focus of this presentation will be a discussion of the themes that emerged from the literature, which are confirmed in the interview data. These themes identified were professional learning and growth, SoTL as academic development, scholarly researched-based approaches, the teaching research nexus (TRN), communities of practice and collegiality.
The results from the interviews were combined with findings from a literature search on SoTL practices at higher education institutions worldwide, to present strategies for the advancement of SoTL during the induction process.

Newly appointed academic staff should be introduced to SoTL during induction through reflective practice and basic action research processes, in order to become familiar with educational research, scholarly teaching and SOTL. This process may help them balance the teaching, research and community engagement aspects of their professional careers.

Departmental curriculum planning: Are we there yet?

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Curriculum sequencing and the relevance of disciplinary knowledge are central to promoting a coherent and self-directing student learning experience at university. The manner in which the selection, sequencing and pacing is crafted into a curriculum provides a programme with an 'identity,' with implications for the experiences and interactions between students and staff on the programme. A programme identity can be instrumental in preparing students to engage with the ever changing complex world as well as enhancing the collaborative teaching and learning practices amongst departmental teams.

Curriculum development processes however, particularly at research intensive universities, have mainly been restricted to isolated courses or module events, often leading to a disjointed and fragmented teaching and learning journey for staff and their students. However, diversity, transformation and student demands on higher education require South African universities to revisit and redesign their qualifications and curricula to meet the challenges facing the higher education system. Given these curricula demands, this study sought to investigate whether academics believe that disciplinary departments at the University of the Witwatersrand, a research intensive university, are ready to collaboratively plan the curricula for an entire programme of study.

This study draws on Bernstein's pedagogic device, Luckett's epistemic device, Maton's Legitimation Code Theory and Zimmerman's Self-Directed Learning Model to locate the importance of curriculum sequencing, knowledge relevance and coherence for a programme of study. The mixed methods research approach included the analysis of documentary and narrative data gained from questionnaires and interviews with academic and support staff who have participated in a Curriculum Development in Higher Education course as part of a Post Graduate Diploma in Education (Higher Education). Despite the awareness of the role that sequencing, knowledge relevance and coherence can play in a departmental team planning of a curriculum for a programme, the paper's intent is to understand if academic and support staff believe that their disciplinary departments are willing to engage in the process.

The study identifies what they see as enablers and what the challenges are that result in academics preferring the traditional isolated course curriculum planning process. The key emerging themes around a department's possible curriculum planning actions, enablers and challenges are then used to present key ideas on how academic developers can work with academics or departmental teams to enhance sequence and coherence in their curricula.

Decolonisation and doxa - The responses of South African public universities to the student protests of 2015 and 2016

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Public universities all over the country are working on the 'imperative to decolonise'. In 2015 many institutions scrambled to respond to what was perceived to be an emerging, national student movement that challenged, in a fundamental way, the neoliberalisation of higher education in South Africa and the perpetuation of coloniality via neoliberalism in #FeesMustFall and #RhodesMustFall protests respectively.

I make two claims in this paper. The first is that that, on the whole, the institutional response to the 2015/2016 crisis demonstrated the extent to which the South African public university has been evacuated of self-understanding. The reactiveness, unsettledness, and the ambiguous nature of the institutional responses to student protest (being both accommodating and suppressing) speaks directly to a condition of incoherence and unconsciousness with regards to its social purpose. My second claim is that, as a result of this doxic condition, decolonisation is presently being misrecognised as something that it is not and that this poses serious danger to the idea of the public university. This is not because decolonisation discourses are in themselves problematic. Rather, due to the corporatisation and neoliberalisation of the public sphere, the university has lost its institutional incapacity to think and be critical. I contend that the public South African university is suffering from an unproductive crisis of identity and that, due to this, is prone to be reactive, labile and short-term in its thinking. Locked into the instrumentalising language of the market - 'academic entrepreneurialism' - the public university essentially does not know what to do about decolonisation, certainly in social justice terms.

In making my argument I refer to various governmental texts produced by various institutions over the period of 2015 to 2017 that specifically responded to student protest. I apply Bourdieusian field theory and critical discourse analysis to demonstrate how institutional doxa is constructed.

Envisioning socially accountable medical graduates: the reflections of final year medical students from South Africa

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Social accountability in the health professions describes the extent to which an education institution's research, service and education make a difference to the health status of the community in which they work. An individual practitioner is expected to attain a range of graduate attributes and competencies, many of which enable a responsive approach to practice in society. There is currently a move towards a greater immersion of medical students within underserved and diverse communities in order to gain the competencies to facilitate their service at this level after graduation. The transformative learning paradigm proposed by Mezirow supports this process.

This qualitative study in the grounded theory tradition explored the notion of social accountability from the perspectives of final year medical students. These students participated in eleven focus group discussions: four at the end of 2012 (25 students) and seven at the end of 2013 (70 students).

Five themes emerged from these focus group discussions reflecting on the curricular process and the participants' experiences as students. The themes characterised social accountability in the following ways:

- It's poorly defined (2012 A) – balancing expectation and obligation
- web of interconnected relationships (2012 C)
- losing my heart and losing my compassion (2012 A)
- more wide angled view of things (2012 C)
- If I don't go there, who will go (2012 D)

A student vision of a curriculum which educates a socially accountable graduate emerged from the connections between these themes and the learning context. Participants constructed a learning environment in which there were three axes across which their learning experiences either acted as catalysts promoting or detractors undermining the socially accountable ideal. These three axes were reflective practice, nurturing relationships and a deeper understanding of complexity. Along each of these axes there was a positive catalyst and a negative detractor. Reflective practice was enhanced by guided reflection based in the real practice of patient care while isolated tasks allowed students to manipulate their reflection tasks. Nurturing relationships were undermined in environments where the asymmetries of power, hierarchy and arrogance were not restrained. Nurturing relationships flourished through compassionate encounters between teacher and learner in an environment of educational intimacy. The learner's engagement with complexity was enhanced by greater immersion in communities and learning in diverse settings but this was in tension with traditional silo based learning.

The conclusion of this study is that the curriculum is an important vehicle for the building of a socially accountable graduate responsive to the demands of society. In planning for such a curriculum, it is important to address both the catalysts which promote such a process and directly ameliorate the impact of the detractors.

Towards a creative language for indigenous knowledge research: Theorising methodology in the South African Poetry Project (ZAPP)

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This paper is part of an NRF-funded project investigating South African contemporary poetry as an indigenous knowledge system (IKS), and the possibly rejuvenating role of this poetry for the teaching of poetry, literature and language in South African schools. The core of the project will be practical knowledge production, by indigenous knowledge holders and practitioners engaged as co-researchers with observers from outside the IKS. The gathering of this knowledge will entail detailed self-reflexive ethnography of the practices of poetry in the classroom, and in the broader communities of poetic practice interacting in this space.

The concern of this paper is with theorising this method in the context of the politics of knowledge production, since the outside observers face the particular challenge of their own embeddedness, and that of the prospective readers of their "research outputs", in the language and assumptions of Western epistemology and its academy. Part of the aim of the broader project is to shake the colonial assumption of Western epistemology that there is 'a detached and neutral point of observation' (Mignolo, 2009), and to open a creative space for exploring ideas, and developing better language for navigating the 'intricate and complex entanglements of meaning' (Nakata et al. 2012) within which IKS research takes place, in a specific local space, namely selected South African language classrooms.

The paper suggests two elements that could be considered as part of this creative methodology. First, it explores the possibility that a potentially useful tool, drawn from the Western philosophical tradition, is the Heideggerian understanding of poetry as the most disclosive way in which human experience is articulated, disclosive of our existence as world-makers, as poeting beings. This understanding, rather than setting parameters of form or function for poetry, opens a space in which poeting as practiced within the indigenous knowledge systems could come to explicit articulation. However, whether this Heideggerian approach merely perpetuates Western epistemological assumptions will need to be carefully examined. The hope is that, from this shared world-making space where indigenous knowledge holders and outside observer can meet, the second possible approach will develop. This involves rearticulating the role of the co-researchers and the nature of the "research output" (the scholarly "paper") in terms of "cultural translation", transforming indigenous knowledge research into a cross-cultural encounter or relationship, a sharing and opening up of worlds. The two cultures between which translation takes place are understood as having epistemological autonomy, their meaning systems both extant and intact (Hooper, 1993). Keeping the act of cultural translation in the foreground will allow the project to remain sensitive to the range of ethnographic subject positions of all participants in the act of knowledge production: indigenous knowledge holders, indigenous knowledge practitioners, observers and readers.

Te ruru a Te Ihonga: The search for threshold concepts in Māori studies

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In Māori oral tradition, Te Ihonga was a demi-god who could tie intricate knots. The resulting entanglements became known as 'te ruru a Te Ihonga' (the ties of Te Ihonga) and could only be undone by those who knew his secret. Threshold concepts (Meyer and Land 2006) work in a similar way within academic disciplines. When students first start learning about a new discipline or field of study, they may feel that their knowledge is disjointed and missing the 'secret formula'. Often, what they are struggling to understand are the threshold concepts, the troublesome or transformational ideas, that students have to figure out first in order to move on to more complex or advanced levels of learning. Once they understand the threshold concept, the next stage of learning can be untangled.

This project asks: What are the threshold concepts for undergraduate study in the field of Māori studies? And how can a better understanding of threshold concepts be used to support greater student achievement in Māori studies? It draws on different methods of data collection, including analyses of academic readings and interviews, to explore the notion of threshold concepts with Māori studies academics and students. It also builds on work done by Indigenous Australian academic, Susan Page (2015), who has published on the topic of threshold concepts in relation to Martin Nakata's (2007) 'cultural interface' idea. By identifying a set of threshold concepts within Māori studies, this project will trigger increased critical reflection amongst Māori studies' teaching staff (McLean 2009) and assist students in Māori studies to untangle the 'ruru' and achieve greater academic success.

An explanatory insight into the management of large classes: The case of the Law Faculty at a selected historically disadvantaged higher education institution

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In the current socioeconomic environment in South Africa, there is an increased demand for higher education among the greater populous. This, in turn, puts pressure on higher education institutions to increase their intake on new enrolments. The burden then falls on academics as they have to teach larger classes without compromising the quality of the product the universities offer. Large classes on their own have numerous challenges among them, managing the classes, identifying students at risk, lack of budget and daunting assessments.

The selected institution was a historically disadvantaged under-resourced university which attracts students from rural settings. The Faculty of Law was selected firstly because it had conducted an exchange programme with an academic institution in the Western Cape, South Africa on how to deal with large classes and, secondly, because of its high undergraduate enrolment figures.

The objective of the study was to explore measures which the Faculty of Law at the selected university could use to handle large classes. A qualitative approach was adopted as interviews were used with the respective academics. The interpretative orientation was adopted as the researchers did not seek consensus but sought the lecturers' experiences in relation to the study objective. The participants selected were also part of the workshop conducted by a specialist in the same Faculty from an academic institution in the Western Cape. Among other issues, the influence of the workshop on the participants and its impact on their practice were explored. Using content analysis the researchers identified the dominant themes from the narratives of the respondents. The dominant themes which emerged were appropriate assessment, inclusive teaching, planning, effective monitoring, support from teaching and learning, reading in groups, peer evaluation, use of technology (blackboard) and identification of students at risk.

Early engineering of professionalism through service-learning: EPICS, internationalisation and professional societies

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There has been a marked shift in the acceptance of community engagement and service-learning, as a pedagogical tool, in the fields of engineering, engineering technology and the built environment. Sufficient evidence points to how these experiences prepare students for multi-disciplinary careers in the private, public and non-profit sectors. An Engineering Projects in Community Service (EPICS-in-IEEE) project was implemented at the University of Johannesburg (UJ) through the Faculty of Engineering and the Built Environment. This manuscript discusses the EPICS-in-IEEE project and shares best practices and lessons learned as the program developed to reach its goal.

 As EPICS-in-IEEE requires, the partners in this project included UJ students and faculty members, a non-governmental organisation (NGO), Engineers without Borders-UJ (EWB-UJ), and secondary school learners (the pre-university component) from UJ Metropolitan Academy. The EPICS-in-IEEE technical design and development phase was constituted and used as a guideline. The results of this project demonstrated at least five positive implications. University final year/capstone engineering design projects and exit-level outcomes were achieved. University students and secondary school learners worked as a team on engineering-related projects for a local NGO and its community.

The project prepared engineering graduates for the professional world. Through the "social innovation" EPICS-in-IEEE concept, the initiative contributed to taking the engineering, engineering technology and built environment disciplines to the broader community, as well as instilling the UJ value system and achieving technical/professional outcomes in preparing students for careers in the private, public and non-profit sectors.

Students' perspectives on assessment tasks' quality in higher education

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When considering the framework of assessment as learning and empowerment, three major challenges need to be addressed: student participation, feedforward and high quality assessment tasks (Rodríguez-Gómez, & Ibarra-Sáiz, 2015). This paper presents the results of a study focused on high quality learning and assessment tasks in the context of higher education.

In accordance with the assessment quality framework developed by Gore, Ladwig, Eslworth, & Ellis (2009) and the critical elements proposed by Ashford-Rowe, Herrington, & Brown (2014), learning and assessment tasks were developed which required students to engage with a range of challenges and demonstrate both skills and intellectual rigor. After each of these tasks were undertaken, students' opinions were obtained through the completion of a specifically designed online questionnaire called ATAE (Análisis de Tareas de Aprendizaje y Evaluación) - Analysis of Learning and Assessment Tasks.

This instrument is structured in three parts:
1. categorisation questions,
2. closed questions on various aspects and possible strategies for the completion of the tasks in which the students' opinions are sought on their ease of implementation and how valuable they might be for application in other contexts and
3. open questions aimed at reflecting on the quality of the tasks.

This paper presents both the questionnaire, its validity and reliability, and the main results obtained from undergraduate, masters and doctorate students' perceptions on the tasks they undertook. It looks at the way each task was carried out or implemented, their usefulness in other contexts (in university and professional contexts), the challenges they presented, the intellectual rigor they demanded, their relationship with the professional field, and the main skills they had to apply or use to perform each task.

The results show that students value tasks that challenge them, require different strategies for their resolution, allow different learning to be used, establish meaningful connections and are closely aligned to authentic situations.

Mental Rotation training and three dimensional software application in adult learning

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Background: The theory of Multiple Intelligence fragments the domain of "Intelligence" into several modalities such as linguistic, logical, kinesthetic, spatial, musical, naturalist, interpersonal and intrapersonal. Among these, spatial intelligence refers to the ability to analyse an object in three dimensions and draw conclusions from limited information. The ability to mentally rotate an object in space is termed Mental Rotation (MR) ability. Medical professionals often rely on this ability while performing clinical examinations, surgeries or analysing radiological images, as internal bodily structures cannot be directly visualised. Literature confirms that MR training improves students' performance on questions requiring spatial abilities. The latest computer assisted technologies have created an external visual-spatial representation of the human body that allows better visualisation, essential for deeper learning and critical thinking. This study evaluated the effect of MR training on the learning outcomes of medical students and the effectiveness of teaching via three dimensional (3D) software among students with diverse spatial intelligence.

Methods: Sixty-seven students voluntarily participated in this study. Thirty students were randomly assigned to receive MR training while the remaining thirty-seven students served as non-trained controls. Data on the effectiveness of the training was collected to measured participants' speed and accuracy in performing various MR activities. Six weeks later, a large class format (LCF) session was conducted for all students using 3D software. The usefulness of technology assisted learning at the LCF was evaluated via pre- and post-tests. Students' feedback regarding MR training and the use of 3D software was acquired through questionnaires. All scores were analysed using SPSS version 21. In all instances $p < 0.05$ was considered as significant.

Results: Regarding training, overall scores of the trainees improved from 25.9±4.6 points to 28.1±4.4 ($p=0.011$) while time taken to complete the tasks reduced from 20.9±3.9 to 12.2±4.4 minutes. Males scored higher than females in all components of MR training ($p=0.016$). To explore the effect of MR training on learning outcomes, we analysed the data of the LCF by paired t-tests that revealed higher pre and post-test scores in the trained group (9.0±1.9 and 12.3±1.6) versus non-trained group (7.8±1.8; 10.8±1.8) respectively. Although mixed-design analysis of variance suggested significant differences in their test scores ($p<0.001$), both groups reported similar trends in overall improvement by means of 3D software ($p=0.54$) which points to its utility in improving learning. Ninety-seven percent students reported technology assisted learning as an effective means of instruction. Over seventy percent suggested that use of 3D software is superior to plastic models as a visualisation tool to facilitate the retention of knowledge and eighty-nine percent agreed that these techniques could assist their learning.

Conclusion: Spatial thinking abilities improve through training that can be used to augment learning outcomes of our students. As the latest technologies promote multi-dimensional visualisation and support spatial thinking abilities, software based on three dimensional technologies could be adopted as an effective teaching pedagogy to augment deeper learning.

The first-year experience: Student acculturation in the South African university context

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As evidenced in ongoing violent student protests across South Africa's higher educational institutions, there is dissatisfaction on the part of students regarding the cost of tertiary education as well as what they argue is lack of transformation, stressing their demands for the decolonisation of the education system. At the heart of such calls, according to some, is a sense of alienation felt primarily by previously disadvantaged students who find the university culture primarily 'Western' and at odds with their perspectives. In a diverse country (with eleven official languages), the failure of universities to enable acculturation of students to the university culture might have serious consequences. It is therefore considered important to understand the constraints relating to acculturation of university culture.

This research therefore seeks to investigate constraints to acculturation in the university context, applying Berry's acculturation theory as its theoretical framework. Predictions of acculturation theory are tested using a sample of 251 first year Economics students. According to acculturation theory, acculturation orientations are determined by the interactive strength of two individual dimensions, namely (i) a desire to maintain one's own culture, and (ii) a desire to acculturate to popular culture, with combinations of these processes classified as assimilation, separation, marginalisation or integration. What is absent from the predictions of acculturation theory (which are premised on the individual level), is a consideration of individual-level differences which are not theoretically ascribed to cultural influences, but which derive from the individual, such as those predicted by personality theory.

This study therefore uses logistic regression analysis to test theory, predicting the likelihood that students fall into each of Berry's four acculturation orientations, while also testing personality dimensions as explanatory factors. Neuroticism and age are found to be negative and significant predictors of the likelihood of falling into the separation explanatory category. Implications of these findings are discussed, and recommendations are derived for university management in order to improve the acculturation of students in this context.

Can reflective tasks change staff perceptions and practices in teaching? Responses to a Certificate in the Scholarship of Teaching and Learning

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A key process identified as an essential feature of the Scholarship of Teaching and Learning (SOTL) is reflection. Several professional development programmes introducing SOTL use reflective tasks to assist academic staff incorporate the reflective process in their teaching and inquiry practices. However, it is still not very clear what the role of the reflective tasks are in changing academic staff perspectives and practices. In addition, their link to SOTL activities is presumed and not really attested to. This study is an examination of the experiences of participants in a Scholarship of Teaching and Learning Certificate (SOTLC) programme at a South African university – Nelson Mandela Metropolitan University.

The aim is to establish how academics who have attended the SOTLC programme perceive the reflective tasks and whether these tasks contribute to changed teaching practice. The study begins with a brief overview of debates about the nature of SOTL. This includes an exploration of a social justice informed approach which aims to achieve participatory parity for staff engaged in this type of professional development activity. The study also draws from emancipatory approaches routed in transformative theory and critical theory. The primary source of data is a set of interviews with 12 past participants of the programme. A content analysis of the interview transcripts has been undertaken to identify emerging themes, to evaluate current tasks and to make recommendations for designing future courses.

The results offer important insights for understanding how reflective tasks manifest in a SOTL-related professional development programme, how the tasks align with SOTL objectives, and how future designs of reflective tasks could help improve the quality of university teaching practice.

Eliciting engineering diploma students' visualisation with techno-modelling tasks

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Engineering applications are affected by advancements in technologies. Therefore, teaching strategies should be aligned according to the practices endorsed by industry (The Royal Academy of Engineering, 2007). While the use of computer algebra systems (CAS) has been well received and appreciated by engineering departments, "the availability of technology does not … guarantee enhanced learning" (Heid & Blume, 2008, p. 424). Learning with CAS allows engineering diploma students to compare symbolic, numeric and graphical representations of the same mathematical concept. However, this embodies a shift from a predominantly paper-and-pen environment to technology-rich activities with high demands on visualisation. According to Arcavi (2003, p. 217), visualisation is

> "the ability, the process and the product of creation, interpretation, use of and reflection upon pictures, images, diagrams, in our minds, on paper or with technological tools, with the purpose of depicting and communicating information, thinking about and developing previously unknown ideas and advancing understandings".

Due to their visualisation-deprived backgrounds, students struggle to interpret computer generated graphs when learning with CAS. This paper reports on the influence of techno-modelling tasks on the visualisation of engineering diploma students. The theory of Realistic Mathematics Education (RME) describes Mathematics as an activity where formal concepts are connected with real world problems (Freudenthal, 1991). In a mathematical modelling approach, a real world phenomenon is translated to a mathematical problem that endeavours to find a meaningful mathematical solution to the phenomenon. An acclaimed advantage of RME is that students can develop advanced levels of understanding and relate Mathematics with the world in which they model. This is in line with engineering bodies who call for future engineers who will be expected to act independently, to make decisions and to face novel problems where higher levels of cognitive thinking are expected.

The participants were two second year cohorts studying towards a National Diploma in Engineering at a South African university. One cohort followed a traditional approach which was augmented with a mathematical modelling task for the other cohort. Content analysis was used to explore both cohorts' electronic CAS worksheets for meaningful responses to interpretive questions. Most students who completed the modelling task were able to interpret computer graphs meaningfully. It is suggested that the modelling task elicited visualisation processes that could not be traced in the work of students who followed only the traditional approach. Benefits resulting from a techno-modelling approach may inspire new learning opportunities for engineering diploma students.

Teaching and learning in times of fees must fall: How to better prepared - Perspective of an academic

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#Feesmustfall is a slogan familiar to South Africans. What started as a student led protest movement in response to an increase in fees in South African universities in October 2015 at the University of Witwatersrand, soon escalated to other institutions of higher learning around the country in 2016. So drastic was the situation that government puts the official damage at R300 302 848.58. This paper shifts focus from the economic tragedy, which can be recovered, to a loss that can never be recovered - time. Time that should have been dedicated in imparting education to forge the youth of this nation for a brighter tomorrow keeping in light the views of our late president Nelson Mandela "Education is the most powerful tool that can change the world".

The people responsible for imparting education, the academics, were themselves not ready for such a situation. In fact, it can now be established that there was no Plan B for imparting teaching and learning. Evidence to this effect lies, firstly, in the number of staff who successfully completed their syllabi, secondly, on whether the majority of their students were able to gain access to study material after the strikes and, finally, on the kind of results that were obtained by the students once the dust settled and exams were written? The question that this paper asks is, how can academics better prepare themselves to impart teaching and learning for unforeseen circumstances like #Feesmustfall in the future? The question is relevant as there is no guarantee this will not happen again.

There is no definitive answer to this question as of yet. This paper documents the approach of one academic on how to be better prepared in future. The study targeted first year Digital Systems 1 Engineering students of the second semester of 2016. The research only took shape after the completion of the final examination of 2016, hence an *ex post facto* research method was used. The research emanated after the strikes were officially called off, but teacher-student contact sessions and sit-down examinations were cancelled.

This meant that lecturers could not conduct classes or evaluations. Luckily there were only a few topics remaining to be covered in the concerned subject, but the main assessment, which constitutes 35% of course mark was yet to be written. The paper describes how videos of classes were made and distributed through Blackboard and the main assessment was written using Socrative, a free cloud-based student response system.

An order from management allowed all students to write the examination, even those that did not meet the course mark requirements. Even then, overall pass rate for the class stood at above 50%, which, under normal circumstances, would be considered poor. The main recommendation from this research is that academia should move more towards a blended learning approach and explore the use of Blackboard as more than a content dumping site.

The challenge of implementing SOTL in the South

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In the mainstream United States, European and Australasian literature, the scholarship of teaching and learning (SOTL), is argued to be valuable for the practice of teaching and learning (Fanghanel et al, 2015), the professional learning of academics and the professionalisation of the field of teaching in higher education (Hutchings, Huber and Ciccone, 2011). In a previous paper we also argued for the value of SOTL (author 1 & author 2), as a means to advance social justice in and through teaching. One of the problems with the literature on SOTL, however, is that it emanates from the global North and tends to be supported by relatively well-resourced institutions. As a consequence, the field tends to be based on tacit assumptions stemming from its inception in privileged universities, namely, that academics are suitably qualified in their own disciplinary fields (have PhDs and have adequate knowledge of their disciplines), that they have some theoretical knowledge of teaching and learning and that they have adequate time to conduct research (are not over-teaching and are not burdened with large amounts of administration). We make these claims based on our reading of the literature, our involvement in a national research project investigation professionalising learning to teach in South African higher education, as well as our substantial experience of working as academic developers. There is, furthermore, a danger in current conceptions of SOTL in that, in the literature on SOTL, a wedge is driven between Boyer's notions of scholarship as an integrated process and practice and what has become known as 'the scholarship of teaching and learning'.

In order to explore both the benefits and challenges facing academics engaged in SOTL in varied South African higher education institutional settings, we interviewed thirteen academic development professionals who provide supportive mechanisms for academics to become engaged in SOTL at their universities. The universities include: research-oriented, comprehensive and teaching-oriented universities and universities of technology. These include both well-resourced and under-resourced institutions. Our semi-structured interviews focused on the benefits and challenges experienced by the academic developers and the academics they supported.

Our presentation shares the results of the interviews we conducted, as well as the conclusions, which include the observation that we need to be clear what we mean by SOTL. This requires a reconsideration what was meant by Boyer's (1990) four definitions of scholarship. We need to consider the most appropriate way to advance SOTL, given the challenges outlined in the findings.

Bad Blood: What relationship fails can teach first years about teamwork in Software Engineering

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One of the challenges in the Software Engineering curricula is teaching undergraduate students the necessary "soft skills" for working in a team as prescribed by professional bodies [1]. These essential capabilities are often overlooked by students and lecturers alike – students believing themselves to be proficient at working in a team and lecturers lacking the resources to focus on imparting these skills with as much attention as they do the "hard" technical skills and knowledge [2, 3]. These attitudes often carry negative consequences for students who come to realise the reality (often too late) when their projects fail. Much research has gone into why software engineers, specifically, tend to suffer from a reputation of struggling to work well in a team setting, with observations ranging from typical "Type A" personalities to the clashes arising from diverse cultures observed [1].

South Africa, being the "Rainbow Nation" is susceptible to conflict arising from social differences. Lecturers in the discipline of software engineering in South Africa must therefore make even more effort to ensure that their students are better prepared for working in diverse teams to improve student success. To impart soft skills, many universities integrate extensive team projects into their curriculum to give senior students the opportunity to experience teamwork first-hand [2]. However, research notes that the approach often incorrectly assumes that students will acquire the necessary soft skills by completing the project [3]. Simply, some students do not get to experience situations where soft skills are required while others end up failing their project, having been unable to "acquire" the skills to address the problems experienced. To better prepare students for their team project in senior year, we have introduced a team project as one of the assessments in their first year of study.

The assessment opportunity requires that teams conduct research on a social problem, designing and developing an application addressing the identified issue. We specifically increase the social differences by imposing restrictions on how teams may be formed, ensuring that students are likely to work with members with whom they are unfamiliar. To support students' development of their soft skills, we provide students with guidance on teamwork and assessing different team roles. In reflective essays, students expressed that the experience helped them to appreciate the challenges of working in teams on both social and technical levels while identifying shortcomings in their soft skills. The early identification affords students the opportunity to work on such skills, becoming better prepared for the more extensive team project during their senior year.

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Formative curriculum evaluation informs the curricula refinement process

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Background

In response to the demand to provide a curriculum which addresses the scientific as well as the much needed generic skills students need (Whittle et.al. 2010), a health sciences faculty implemented a revised curriculum. A formative curriculum evaluation research process was started with the aim to inform faculty to intervene immediately where-ever needed (Bitzer et.al. 2011). The process was repeated for four consecutive years and followed-up four years later.

Summary of work

The formative evaluation process followed a qualitative research approach where data were collected by means of focus groups, in-depth interviews and textual module evaluation documents. The evaluation process at first only focused on the first semester of the first year of the curriculum – the so-called Inter-Professional Phase. Data analysis was aimed at the identification of the main areas of concern to stakeholders. All relevant stakeholders in the curriculum were included in the process.

Summary of results

The formative research process made it possible for faculty to intervene immediately at the end of the first year after implementation, and in the consecutive years as well. This timeous intervention had in most cases the positive result it was intended to have but, in some aspects, it did not have the expected outcomes. The interventions were mainly of a logistical, value and content nature. Logistical and content issues as revealed by the research were in most cases successfully addressed, while those of value nature were more challenging. The imbedding and teaching of crucial generic skills in a curriculum depends much on the way in which these skills are contextualised within the health sciences curriculum.

Conclusions

Early qualitative research facilitated refinement of a curricular revision process leading to rapid and timely evidence-based intervention. It is appropriate and effective to do curriculum evaluation immediately after a new or revised curriculum is implemented, and in the years following implementation. An appropriate method to inform faculty is to make use of qualitative research methods involving all relevant stakeholders. It ensures that the evaluation process is accepted as open and inclusive (Satterfield et.al. 2010).

Take home message.

Timeous qualitative research contributed to immediate intervention, ensuring effective implementation of the revised curriculum.

Peer helpers' construction of their roles at an Open Distance Learning institution

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The University of South Africa (Unisa) is an Open Distance Learning (ODL) institution which offers its educational programmes through distance learning. Due to Unisa's elasticity and institutional character, the Unisa Peer Help Volunteer Programme was developed to expand the range of support for students, to render career guidance services to schools and the surrounding communities, and to create a conducive environment for the peer helpers to engender personal and professional growth.

The primary aim of the study was to explore the modalities used by the peer helpers to construct their roles at Unisa. A qualitative approach was utilised in the study, and the social constructionist paradigm was employed as an epistemological position. The participants were recruited using a purposive sampling technique, and six peer helpers volunteered to participate in the study. Data were analysed using thematic analysis. Three themes were identified namely, peers as distributors of information, the peer help role as an opportunity to integrate theory and practice, and the peer help role as a personal eye-opener.

Reflections on enablements and constraints in SOTL implementation at WSU

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Institutions of Higher Learning (IHL) worldwide have been repositioning themselves to be effective in teaching and learning following the early 1990s' Ernest Boyer's famous monograph of "scholarship of teaching", the   Scholarship Reconsidered: Priorities of the Professoriate. IHL in South Africa have progressively been adopting the Scholarship of Teaching and Learning (SOTL). Walter Sisulu University (WSU) in South Africa has not been an exception and they are currently in the process of implementing (SoTL as an integral part of every academic's teaching strategy. This is not only aimed at demonstrating the pinnacle of efforts in improving learning and teaching, but also fostering pedagogic content knowledge, as well as developing a culture of conversations and reflections among academics on the discourses of teaching practices.

The paper presents strategies and processes that have been used by the author to promote scholarly productivity in teaching and learning among WSU academics. Various Strategies, including transforming assessment methods and assignments from 'talk and chalk' to more student-centred ones, coaching of academics through research, advancing 'communities of practice' and fostering collegial teaching teams. In the process, more interventions have been employed with very positive results, which are gradually enhancing scholarly pursuits in teaching and learning as well as improving students' learning. This article therefore aims to share with other practitioners these breakthrough achievements.

Curriculum alignment within the postgraduate diploma module: A SOTL approach

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In 'Scholarship Reconsidered', Boyer (1990) suggests four separate, but overlapping areas of scholarship: the scholarship of discovery, integration, application and teaching. Despite Boyer's assertion that 'teaching is part of the larger whole of academic work', 'the scholarship of integration which involves making connections across the disciplines and placing the specialties in larger context' is less prevalent in SOTL debate. The argument made in this paper is that academic staff need to prepare and conceptualise their teaching within the broader framework of the programme in order to achieve the programme outcomes.

We report on the approach that we used to develop a curriculum module as part of the Postgraduate Diploma in Higher Education course that would help academic staff to take into consideration the four areas of scholarship. Our approach to the module was based on Biggs' (1999) notion of curriculum alignment, which encourages the consideration and interaction of the different curriculum components, both horizontally and vertically. The module was framed to consider all the contextual factors and stakeholders, how they are represented as well as how each module links to the other so as to reflect the overall aims and purpose of the programme. We worked from the premise that students should be able to make an explicit connection between the various modules in the programme. This is best achieved when all module teachers and coordinators work together to achieve that synergy.

Through interaction with the module facilitators of the other two modules (Teaching and learning and Assessment in Higher Education), we will illustrate, in the presentation, possible ways to plan teaching and teach that integrate the different curriculum components.

Developing undergraduate research skills in an Academic Literacy module through inquiry-based learning

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This paper reports on a lecturer's attempts at integrating inquiry-based learning into an Academic Literacy course, a sub-component of the Professional Studies module, in order to develop the research skills of second year B.Ed (ISP) teacher trainees. Informed by Healey and Jenkins' four ways of engaging undergraduates with research and enquiry, the lecturer adopted a research-based approach to ensure that the course was learner-centred, promoted deep learning and empowered students with basic research skills. The lecturer also adopted Schon's framework for reflection in order to think about what she would do differently next time so as to enhance student learning and improve her classroom practice. The paper also reports on students' evaluations of the course and how they experienced it. The study concluded that a structured inquiry which culminates in the submission of a research report at the end of the programme would enhance student learning at undergraduate level, provided there is sufficient contact time for constructive feedback, the development of academic literacies and collaborative peer learning. A programme-wide approach to the integration of inquiry-based learning into course content is recommended.

The effects of STAD on the researcher's praxis as a Technology teacher

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The researcher explored student teams' achievement divisions (STAD) as a teaching and learning technique in a Technology classroom. This paper aims to investigate the effects of STAD on the researcher's praxis. As a learner-centred cooperative learning teaching method, STAD is underpinned by a constructivist perspective on learning and Vygotsky's social cognitive theory. Social constructivism posits that knowledge of what is comprehended is derived from the communities of understanding rather than operating in isolation (Cottone, 2007; Sohel, 2010). Hence, the researcher attests that the contributions of peer educators through critical assessment of lesson presentations is a fundamental practice for teacher development.

The researcher therefore employed STAD in a Technology classroom to explore how high performing learners could effect change in relation to low achieving learners by instilling values and attributes that promote self-efficacy among the team members. Moreover, the researcher also used the opportunity to investigate how STAD could effect change in the teacher's practice. The study would therefore also be guided by theories on the teacher as researcher as well as professional development theories. Professional development proponents contend that development takes place on various platforms, including research. Moreover, professional development in a classroom affects learners positively, especially when done in a setting that allows immediate implementation (Mizell, 2010).

This study employed qualitative methods of collecting and analysing data to achieve the objectives of the inquiry. Ten peer educators observed the class proceedings and completed the observation schedules, and the researcher also used a reflective journal to record daily happenings. Qualitative research design assisted the researcher to obtain rich descriptive data regarding the phenomenon, in order to gain intensive understanding, as it included other gestures that may have not been quantitatively obtained (Nieuwenhuis, 2010). The findings proved to enhance educator's preparation and confidence in lesson delivery.

Terminology planning for teaching and learning: The issue of bilingualism at an English-Medium university in South Africa

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This paper presents and discusses the data collected for research on bilingual practices at Rhodes University (RU). The paper is a spin-off of a Master's research which was conducted between 2014 and 2015. The focus of the research was to investigate the use of bilingual glossaries for academic purposes and to support learning and to study students' perceptions on the terminology that was already created and available for the students. The right of access to educational institutions and accessing education in one's language is encouraged by the Constitution (Section 6, Act 108 of 1996). The Language Policy for Higher Education (LPHE) (2002) enforces the use on languages other than English (LOTE) in HEIs to support learning. This policy also requires institutions higher learning to formulate their own language policies. One of the language policy objectives of the institution at which the reported study was conducted is the promotion of use of isiXhosa in teaching and learning as well as the development of multilingual teaching materials in line with the official languages of the institution. The policy also emphasizes its commitment to ensure that language does not act as a barrier to learning. Research shows that there is correlation between one's primary language and learning and that the use of learner's primary language can facilitate cognition. Several research methods such as questionnaires, interviews and participant observations were used to collect data. The issues that emerged from the data that was collected included the following:

1) Languages used by students in formal learning contexts;
2) The availability of multilingual resources for students in learning and executing tasks during the learning process;
3) The students' perceptions on the role of bilingual glossaries in facilitating learning;
4) The students' perceptions on the role of languages other than English (LOTE) on the role of academia;
 5) The students' perceptions on the role of English in higher education.

This paper is going to discuss the above issues within a theoretical framework that draws from theories of language and learning; language and conceptualization and language proficiency and academic achievement that was used for the study. Such theories are used to interpret the results and the issues that emerge from the data. Lastly, the paper makes some recommendations that may not only facilitate the official implementation of bi/multilingual teaching and learning practices but also optimize on the students' mother tongues as pedagogical resources.

The development of identity as an educator in the health sciences: A qualitative study

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Background: An increasing number of interventions have been reported over the last ten years in the area of faculty development. We define faculty development as a planned series of activities aimed at preparing individuals for their teaching role. In 2014, we commenced a postgraduate diploma in health science education in a Faculty of Health Sciences in South Africa. The purpose of this study was to obtain perceptions about the programme from the first group of participants.

Methods: The qualitative paradigm was chosen for this study and two focus groups were conducted with a total of ten participants. The focus groups were audio-taped and transcribed verbatim, and the transcripts were analysed using the conventional content analysis approach. Although participants were not explicitly asked about their identity as educators, the initial analysis of data revealed this notion worthy of exploration and a secondary analysis was performed.

Findings: Themes extracted from the data revealed a narrative progression of identity development. Participants in the course began the process as "outsiders" to the health education discourse, despite all having experience of teaching within their own professional disciplines. Over time, many participants acknowledged a changed self-view, transforming from the "all-knowing" health care professional to the educator who facilitates learning for diverse student populations. This identity as health educator was reinforced within the group, but participants had difficulty in evincing it in their work environments and the wider health-practice community. By the end of the course, the group had recognised the development of a community of practice which encouraged their further development as health science educators. There was acknowledgement that they had become blended practitioners, straddling both professional and academic areas, and that they had not relinquished their entrance identities.

Conclusion:
Faculty development initiatives can alter the meaning and purpose that participants have in their professional work, contributing to the development of another identity as health care educators.

Student bursary funding and student success: A case study of a South African institution of higher education

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Demand for higher education in South Africa outstrips both supply and current funding levels. Thus, universities are pressed to take in many students and fund both them and normal university operations. Consequently, universities have been undertaking cost cutting measures to pare operational costs down to a bare minimum. In terms of student bursary funding, there is pressure to ensure that it is allocated in a strategic and prudent manner. To date, however, little work has been undertaken to determine how to achieve this. Thus, this research sought to explore the current student bursary funding model to find ways in which bursary funding decisions can be better informed. The study used student bursary funding data to explore the links between (1) academic performance and throughput, (2) student bursary funding and throughput, and (3) residence placement and throughput. In this study, 8099 undergraduates (n = all) for the 2011 cohort year at one institution of higher education in South Africa were tracked over a period of three years.

Results show that student bursary funding decisions are both complex and challenging. Firstly, academic performance, in terms of matriculation results and average grades weighted by module credits (or Grade Point Averages (GPA)) were found to be statistically the best predictor of throughput, although GPA is a better predictor than matric results. Thus, bursaries awarded on academic merit yielded the best results. Secondly, there was a statistically significant relationship between being placed in a student residence and throughput. There was no relationship between either the presence or the value of individual student bursary funding and throughput. Nor was academic performance a function of bursary funding. In conclusion, allocating all available funding to individual students for their studies is counterproductive. Instead, a strategic proportion of funding should be reserved to fund student residences and other support services.

Best practice guidelines for the implementation of a technology enhanced learning, teaching and assessment strategy

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Background: Over the last few years there has been increasing interest in the use of computer enhanced learning, teaching and assessment (CELTA) strategies in medical and health education at both undergraduate and postgraduate levels. There is also evidence that CELTA provides a platform that is attractive to the learning, teaching and assessment (LTA) stakeholders, while delivering high quality personalised learning. The future development of CELTA is expected to evolve as the technology evolves. Broadbent (2002) comments that effective CELTA is created when there is a successful alignment of the approach to learning with the use of technology. The alignment of the approach therefore needs to be based on sound pedagogical approaches. In addition, it is critical to note that the success of CELTA largely depends on how the content is made available to the learner and how it is used to enhance their learning, more than it depends on the production of content.

Aim: The aim of this project was to develop best practice guidelines for the implementation of a CELTA strategy in order to ensure effective design and delivery of the modules with the use of appropriate pedagogical approaches. For the purposes of this project, best practice is considered based on Arendale (2015) who defines best practice as the wide range of individual activities, policies, and programmatic approaches to achieve positive changes in student attitudes or academic behaviours.

Methods: The methodology followed the concept formulation approach in the design of the guidelines. Concept formulation considers multiple options that can be used for incorporation into the design through the review of relevant literature and the consideration of the currently used approach (best practice). University College Dublin, Radiography and Diagnostic Imaging Department's practice for the use of CELTA was adopted as the best practice. Among the critical readings that informed the design of the guidelines were the following:
•	The Ten Principles for successful E-learning
•	Learner agency principles
•	The Substitution-Augmentation-Modification-Redefinition SAMR model.
•	Technological Pedagogical Content Knowledge (TPACK)
•	Recent literature with regards to pedagogy for using technology
•	Moving beyond the hype: A contextualised view of learning with technology in higher education

Results: The guidelines were developed and were inclusive of five steps that can be followed for effective implementation of CELTA using sound pedagogical approaches. These steps are as follows:
•	Reason for the use of the technology - SAMR model.
•	Identification of the knowledge to be taught with technology - TPACK framework.
•	Consideration of pedagogical theories.
•	Identification of the suitable technology.
•	Design the learning activity.

Conclusion: The use of CELTA can play a significant role if appropriate pedagogical approaches are used to inform the design thereof.

Discomfort and Love: Learning humility from stories as a way to teach social justice

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This paper forms part of a broader doctoral study on the teaching of social justice through a pedagogy of discomfort in a Teacher Education Service Learning (TESL) module. The aim of the TESL module was to prepare teacher education students to become more responsive, caring, activist teachers.

Based on the assumption that we are all carriers of troubled knowledge, difficult dialogues were initiated and students were encouraged to interrogate their "troubled knowledge" so as to reflect upon assumptions, beliefs and practices that could potentially impact negatively on their teaching in diverse settings. Acknowledging the potential violence and disruption that this could enact, the epistemology of love was used to create a "safe" space to explore difficult knowledges as incomplete stories of becoming.

In this paper I reflect on the stories of 4 women and their experiences of the module. Through the use of duo-ethnography as a conceptual framework, I sought to "challenge and potentially disrupt the metanarrative of self at the personal level by questioning held beliefs" (Norris & Sawyer, 2012: 15) . I narrate my experiences of the module: what, why and how I taught it. I then explore and reflect on the stories of three female students' experiences as shared during interviews. Preliminary data from the interviews highlights the importance of creating discomfort and disruption as a necessary catalyst for deeper self-reflection, but also the inherent risks associated with it. What also emerged were insights into how we can potentially think about and teach social justice in a more ethical and responsive way through the use of narrative humility, informed by the epistemology of love.

Narrative humility which promotes active listening, the co-creation of stories and the sense of curiosity, is supported by an epistemology of love aimed at coming to know another with gentleness, respect and a sense of imagination and wonder. Through the use of these two concepts, it is hoped that this will allow participant stories to 'talk back', to be able to better cultivate spaces in which students can share, with less reservation and fear, their incomplete stories of becoming, which is an integral part of teaching social justice.

Development and validation of an assessment instrument for direct observation of laboratory skills (DOLS) for a Haematology residency program

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Background: Workplace based assessments e.g. Mini-CEX and DOPS have been employed across a range of medical specialties. However, no instrument for workplace based assessments for residency programme in Pathology could be found. The acquisition of laboratory skills is one of the essential goals of postgraduate haematology training. Faculty time constraints in a service-heavy laboratory do not, however, allow for direct teaching and observation. This study was conducted to develop and validate an instrument for Direct Observation of Laboratory Skills (DOLS) of residents in the discipline of Pathology.

Method: After approval from Aga Khan's Ethics Committee, this study was conducted at the AKUH, which is a tertiary care academic hospital. Ten Haematology residents from Years 1-5 were sampled. Four lab tests were selected for observation. All residents had performed the laboratory tests to be observed at least 1-4 times before DOLS was conducted. Each resident was evaluated by three faculty members in Haematology during each encounter. Performance was rated on a seven-point DOLS scale. SPSS version 22 and Stata Version 12 were used for data analysis. Construct validity and inter-rater reliability was computed using spearman correlation and interclass correlation respectively. Feedback from residents regarding the process of formative assessment was also analysed, and the results tabulated as learner satisfaction. Feasibility was determined by obtaining rater satisfaction and time spent in observation and feedback. Cost was determined on the basis of consumables, stationery and time.

Results: A total of 120 encounters were observed. Overall mean total score ±1SD was 56.74±12.44 (minimum-maximum: 27.08-66.67). The score was lowest at 2.98±1.22 in technical skills while highest in professionalism (3.93±0.25). 'Total score' and 'overall performance' obtained by residents were moderately correlated with the 'number of laboratory procedures previously performed' by them (r= 0.658** and 0.641**; p-value=0.01). Inter-rater reliability was high for assessors (ICC A1 =0.95 (95%CI: 0.92-0.98) and low for DOLS (0.64; 95%CI: 0.54-0.75). This improved to 0.70 (0.60-0.80) on deleting two items having low inter-item correlation. Cronbach's alpha was high at 0.989. Cohen's d was 1.64 which was a large difference in practical sense. Estimated variance component was highest for residents (73.32%) and was negligible for assessor*lab test interaction (0.01). G Coefficient was 0.931 with one assessor examining five procedures. The process was rated 5-6 on a 7-point scale by the residents showing their 'above average' satisfaction in DOLS. Mean time (±1SD) taken by three assessors for observing was 13.17±5.76 minutes and for providing feedback was 4.72±.66 minutes. Cost of conducting DOLS was estimated at PKR 2675 or 25$.

Conclusion: The study found that newly developed DOLS provided evidence for construct validity and reliability of scores for observing laboratory skills of residents. Both assessors and the residents reported high level of satisfaction with DOLS usage. DOLS will provide a high reliability even if residents are observed by one assessor on five procedures. Cost for implementing DOLS can be reduced by incorporating DOLS as a part of routine bench work.

Encountering bullying: First year students experiences at school

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Bullying in schools is of concern nationally and internationally. Learners in South African schools are not excluded from experiencing bullying (see Burton & Leoschut, 2012; Burton, 2008; South African Council of Educators, 2011; Mncube & Harber, 2012). First year students enter initial teacher education institutes with multiple degrees of exposure to bullying at school. Personal experiences of bullying influence how students deal with instances of bullying on teaching practice and once qualified. It is imperative, against this background, to understand first year students experiences of bullying at school and the role they feel these encounters have played. This would allow initial teacher education institutions to better equip prospective teachers with the skills and knowledge pertaining to violence and aggression in schools.

Albert Bandura's Social Learning Theory is the theoretical lens used in this research. The aim of this research study is to explore first year students' experiences of bullying as learners and how these experiences have influenced how they would handle aspects of bullying as teachers. A total of 305 first year students participated in this research study. Students completed a multiple-choice questionnaire as well as an open-ended questionnaire about their bullying experiences. Data were analysed by collating responses and by means of an open coding method. From the data collected, 10 students regard themselves as bullies, 56 as victims, 201 as bystanders and a total of 38 students indicated they assumed more than one role.

This paper argues that, because most participants were bystanders in incidents of bullying, it is imperative to explore their experiences to equip them with adequate skills and information on how to deal with bullying as prospective teachers. In the absence of students being better prepared to deal with bullying, teachers will continue to feel disempowered about what can be done as, ultimately, teachers are the ones learners expect will be able to assist them.

What does an (South) African economics look like?

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Demands for the 'decolonisation' of universities and curricula in South Africa raise important questions as to how economics should be taught in South African economics departments. Internationally, various student-led movements have called for an overhaul of economics curricula – particularly since the Financial Crisis of 2008. The objective of the paper is to develop a position on the teaching of economics in South Africa that addresses many of the challenges explicitly or implicitly posed by such movements.

The most immediate issue that arises is the extent to which the mainstream neoclassical curriculum should, or should not, be taught. Many heterodox economists appear to be in favour of abandoning the neoclassical curriculum in its entirety, a position this paper does not endorse. There are three reasons to ensure that students in developing countries are familiar with the content of the mainstream curriculum, and each of these can be supported by particular examples. The first is practical: most economists and international policymakers they subsequently engage with will have been trained in this fashion and the scope for constructive dialogue is limited if developing country economists cannot speak the dominant 'language' of the discipline. The second reason is that the mainstream literature does contain useful methods and valuable insights in places. For instance, there is little basis for abandoning the wealth of econometric and theoretical tools developed to analyse poverty, inequality and labour markets. Finally, one cannot get students to appreciate substantive critiques of dominant narratives without them actually understanding those narratives.

The paper therefore argues for some use of the standard curriculum, with a particular emphasis on certain topics and methods. Material over-and-above the mainstream curriculum can be separated into three main categories: methodology and philosophy of economics, including various internal and external critiques of the discipline; economic history (with a particular emphasis on local economic history and policies); and, alternative/heterodox theories on key questions. What this makes clear is that a critical and locally-informed economics curriculum is more, rather than less, challenging for students and lecturers. Ideally it requires similar quantitative skills to those expected in international graduate school programmes, as well as a much greater capacity to think critically across disciplinary boundaries and using non-quantitative methods. Under this version of a 'decolonised' curriculum, lowering of standards is the least of our problems.

Indeed, the paper suggests that the greatest obstacles to reforming the curriculum in this fashion may be the capacity of students, staff and academic institutions. Is it realistic to expect local students to, on average, be of a higher calibre than the select groups that attend highly-ranked mainstream departments? Do developing countries have staff of such a high calibre that they are fully conversant with the dominant literature but able to produce research and curricula that critically engage with it? Will institutions be able to devote sufficient resources to developing radically different curricula of high quality? If these criteria cannot be met, what are the feasible second- or third-best alternatives?

Bridging the gap: The first year paradigm shift

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The South African basic education system suggests a variety of different biological high school curricula to learners within the science disciplines. The transition from high school to tertiary education platforms, with degrees focused on molecular biological sciences, can be viewed by many first years (FYs) as overwhelming. The ability for FYs to engage meaningfully becomes severely compromised when faced with such challenges, resulting in a reduced epistemological access. The student cohort presents itself as a "diverse melting pot" of individuals where the approach of "one size fits all" methodologies are unrealistic. Students are encouraged to take ownership of their own studies through self-regulated learning (SRL). The aim of our study is to report on an investigation about our blended learning approach for teaching and learning methodologies which benefit and enhance the FY student experience in the Faculty of Natural and Agricultural Sciences.

Molecular and Cellular Biology (MLB 111) is a large enrolment (1500 students) foundational high impact module taught to students from five faculties and across 45 different degree programmes. This first semester module is pivotal in training FYs to absorb and retain information. Animal diversity (ZEN 161), taught to students from four faculties and across 30 different degree programmes in the second semester, builds on the practises presented in MLB 111. These modules employ a diversity in their teaching and learning principles to ensure the overall success of the students. The use of peer instruction, an audience response system (clickers), LearnSmart, on-line classes, on-line tutorial sessions, in class videos and continuous assessment are examples of methods used to increase student success and epistemological access. This presentation will focus on such principles and explore the blended teaching and learning practices which allow for shifting the FY paradigm to SRL, a model for greater achievement among tertiary students, impacting ultimately on their university success and experience.

Comparing nurse-led clinical teaching rounds with post conference: Promoting critical thinking skills among Ugandan student nurses

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Globally, there remain a number of health challenges including new diseases, re-emerging diseases, new disease patterns and new technologies, which call for nurses who are able to think critically and make appropriate clinical judgement. Critical thinking improves students' learning but facilitating the development of clinical critical thinking skills among nursing students has been perplexing. In Uganda, the undergraduate teaching curricula reflect a variety of clinical instructional methods including case presentation, mastery learning (formative and summative assessment), and post conference. There is, however, no evidence to support these approaches in enhancing students' critical thinking skills.

Research has shown that the nurse-led clinical teaching round strategy improves the clinical critical thinking ability of nursing students. Some nurse educators in Uganda have tried to use nurse-led clinical teaching rounds, but not much is known about the effectiveness of the strategy in imparting critical thinking skills to students in the Ugandan setting. A comparative interventional method was used to evaluate the effectiveness of using nurse-led clinical teaching rounds versus post conferences in promoting student nurses' critical thinking skills. The class groups were allocated to the two teaching methods in random classes, their critical thinking ability was pre-, and post-tested using the Performance Based Development System (PBDS) model. In order to explain the students' performance in the post-test, a focus group discussion was conducted to identify the students' perceptions of the teaching strategy used. The findings of the study, in both groups of students, indicated that the students' critical thinking ability was low; with an average of 50% in pre-test. After the intervention, the post-test results indicated an increase in critical thinking ability in both teaching strategies; with an average of 70% for post conference and 85% for nurse-led clinical teaching rounds.

The best performance was noted among students who were taught using the nurse-led clinical teaching rounds. The students who were instructed using nurse-led clinical teaching rounds, consistently reflected on the teaching strategy as an interactive teaching method. To the post conference strategy, the students reflected that the teaching strategy was similar to the previous instruction they had in the clinical teaching and expressed the need for direct patient observation by all the team members during the patient presentations for a better understanding of the required patient care needs. This study demonstrated the need to use the nurse-led clinical teaching rounds strategy as it engages the students more in their clinical learning, improving their critical thinking ability and patient care outcomes.

Using the Maker approach to leapfrog faculty pedagogy

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Faculty in higher education institutions endeavour to produce graduates who are equipped with relevant competencies to cope with contextual challenges faced by today's institutions. To do so, they attempt to adapt their pedagogy in ways that will provide students with such competencies. To support the faculty to develop relevant pedagogy, this project introduced the faculty to the ''Maker Movement'. This was aimed at helping faculty members to imagine contextually and culturally relevant innovations that might improve classroom practice.

Making encourages student-centred and active learning. It develops resilience, curiosity, and self-empowerment through wrestling with ideas, and engaging in problem-solving and finding. This is because Making requires students to physically design and build, allowing them to take abstract concepts and make personal, tangible meaning, using design, tools, materials and collaborative discussion.

A design thinking methodology was adopted in a series of workshops for training the faulty. During the workshops faculty were encouraged to think innovatively about their pedagogical practices. Faculty was provided with training in Making as both a pedagogical approach and an area of study, as well as space for collaboration and resources, which would help them think creatively about pedagogical innovations relevant to their students' and contextual needs.

The outcomes so far observed are that faculty have, as a result of the interventions, adopted and fostered new forms of literacy critical for the knowledge age in their teaching. In addition, they have leapfrogged their pedagogy in imaginative, appropriate and sustainable ways, and consistently draw on indigenous knowledge to develop teaching resources.

Accounting for the differentials in faculty productivity of PhD graduates at a selected university in South Africa

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The ability of an Institution to graduate students, also known as the turnout rate, is one of the most important means whereby an institution receives a grant/subsidy from the government. This study interrogated the differentials in turnout rates per faculty in the chosen institution over a period of 5 years. It looked at the different strategies, approaches and methods employed by the faculties and departments that have led to success or failure in graduating their postgraduate students and, specifically, doctoral candidates. Framed in the interpretive paradigm, the study adopted a qualitative approach and a case study design. A non-probability purposive sample of 20 participants was drawn. These participants included research professors, postgraduate co-ordinators and deputy deans of research from across all the faculties.

Data were collected through in-depth interviews. Interview transcripts were analysed thematically and also through the constant comparison technique. The major findings of the study point to the staffing profile, structural arrangements, supervision approaches and models adopted as having a bearing on PhD productivity. Knowledge and insights from supervision practices of successful faculties is shared and ways of enhancing post graduate supervision that have the potential of increasing the PhD productivity of faculties are suggested. Recommendations for scholarship on effective supervision practices are made.

Postgraduate supervision as a tool for national development

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Education remains a central tool for national development, but how much of this is achieved at any point in time depends on the specific role of the operators and key players in the sector. While primary education lays the required foundation in the individual, secondary or high schools provide general knowledge for effective functioning of that individual. However, the much needed specialised knowledge and skills for efficient performance of individuals is provided by tertiary institutions, with the universities' postgraduate schools occupying the apex position.

Therefore, without prejudice to all other levels of education across nations in the world, much is required of the postgraduate schools as regards the pursuit of specific strands of a nations' development goals. The paper identifies the postgraduate supervisors and supervisees as key role players in the innovative and pragmatic research function of universities for political, economic-commercial and industrial developments. It explores how the supervisors' role of advising, mentoring, and monitoring could be directed towards specific national development goals, especially for the nations of South.

To determine the prevailing state of affairs in this all important area, we undertook a comprehensive review of available literature, including policy documents from a few universities. Primary data were collected through surveys and personal interviews with a range of experienced academics involved in postgraduate supervision. It was found that much attention has not been directed towards this new thinking and recommendations made to fill this gap would be of benefit to academics and postgraduate students and their supervisors, as well as policy makers.

The role of formative assessment in achieving social justice in Business Studies

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The purpose of this study is to critically examine formative assessment as a form of assessment that promotes social equality, and not just pedagogy. To create an educational situation where all learners have equal access to useful feedback, teachers are expected to scaffold learning through this form of assessment. Assessment for social justice thus includes the potential to reduce the disadvantages in learning. It goes beyond grading, selection and accountability for learning by elevating each student's learning threshold. It is in this sense that it reduces social and educational disparities. The findings indicate that even though the teachers viewed themselves as competent in using formative assessment, this was not evident in their practices nor in the views they expressed about formative assessment. It was also noted that, although teachers appreciated the importance of assessment in promoting socially responsible education, they still had some misconceptions regarding the implementation of formative assessment in Business Studies.

Their inability to see formative assessment as an ongoing, day-to-day classroom assessment process, which provides information to both the teacher and students about what they need to understand and what areas should be given their attention, could be seen as responsible for its ineffective use. The teachers' professional understanding of formative assessment as a concept and their efforts to implement it highlighted the need for teacher development. If teachers can be encouraged to examine their practices to establish how they are informed by their views on formative assessment, learners' interest and performance in the subject ought to improve.

Posthuman agency and transformative pedagogies

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Higher education in South Africa is in turmoil, caught between institutional managerialism and youthful rebellion, against a world that refuses to become more just. In this conflict, the education project remains unarticulated. The transformation of higher education is in the first place an educational concern. An important educational focus in the transformation of higher education in South Africa is therefore the development of powerful ethical agency. This agency has to be understood in ways that avoid the destructiveness of both neoliberal possessive individualism and particular forms of revolutionary agencies. A posthumanist perspective provides the means to conceptualise an alternative notion of agency which could drive societal transformation. The posthuman agent is grounded in an ontology of becoming where power/knowledge and ethics are combined. Power is a positive and creative force of life through which freedom is realised. This power challenges reactionary powers of domination and subjectification which violate the desire to become.

In opposition to centred notions of power in the autonomous humanist agent, posthumanist power draws from the entanglements with multiple other humans and nonhumans. This mutuality of becoming powerful is based on minoritarian ethics (Deleuze) which opens the self to the effect of others. Where the neoliberal agent is isolated from others, the posthuman agent becomes through these others. Becoming is therefore based on an ontological ethics of entanglement. It is argued in this paper that students who develop powerful agency, motivated by the desire to realise their freedom and guided by an ethos, are central agents of transformation. The sustainability of a revolutionary movement such as #feesmustfall is dependent on students becoming ethically powerful. The paper will discuss pedagogical practices in higher education to illustrate how power and freedom could be enhanced within an ethics of transformation. This understanding is in contrast with current pedagogical and institutional practices that produce neoliberal subjectification and a conformity to an immoral order.

The impact of the student to supervisor ratio on research proficiency in postgraduate Economics

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In 2007, the Higher Education Qualification Framework (HEQF) prescribed that all Bachelor Honours degrees at National Qualification Level (NQF) level 8 include a research component worth 30 credits (CHE, 2011). The purpose of the research component is to prepare students to conduct independent and authentic field-specific research at an Honours-level, with emphasis on discipline-specific research methodologies, data analysis and rigorous interpretation of results (SAQA, 2012).

In practice, institutions have opted to present this research component in different ways, depending on the discipline. In the discipline of Economics, the Honours research component is usually presented as a separate research module over one academic year and involves conducting and reporting research under supervision. The research module also comprises of a few hours of research methodology lectures so that students are provided with guidance on how to conduct independent research.

Despite the fairly generic requirements of the research component, universities have different student intakes, which influence class size, which in turn influences the student to supervisor ratio. A larger class not only provides a less productive educational environment than a smaller class (Mishel, Rothstein, Krueger, Hanushek, & Rice, 2002) for research methodology lectures, but could also lead to a higher student to supervisor ratio which could have considerable implications for the execution of research in the Economics discipline at a postgraduate level. Thus, the aim of this study is to examine whether the student to supervisor ratio influences research proficiency in the discipline of economics in a residential university setting.

The research proficiencies of students who enrolled for Honours research modules in Economics at the University of Pretoria and at the University of Johannesburg are investigated. After controlling for socioeconomic status, preliminary empirical findings suggest that the student to supervisor ratio has an impact on research proficiency in postgraduate Economics. These findings could be a signal to universities to better manage large student enrolment, especially at a postgraduate level.

Undergraduate medical curriculum: Relevance and appropriateness to Community Health needs

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Medical education based on modern science has doubled the human lifespan. Inequities across and within countries have generated demand for the centrality of community health needs in medical curricula. Aga Khan University pioneered a community-based undergraduate curriculum in Pakistan to develop leaders capable of addressing community health needs. The current paper assesses the relevance and appropriateness of this undergraduate curriculum to community health needs.

A framework with three major parameters was developed for identifying community health needs including public health concepts recommended in national standards, major public health problems, and attributes required for fulfilling societal needs. The public health undergraduate curriculum of the Aga Khan University was assessed on this framework to determine its relevance and appropriateness to community health needs. The study revealed that the curriculum can be relevant and appropriate to community health needs only if, in addition to being community oriented, it is community-based. Community-based primary healthcare prototypes are crucial to provide students an opportunity for experiential learning, and connect the medical education and health systems. This approach is difficult to design and extremely challenging in developing countries where national health systems are curative focused, and community-based healthcare facilities are in fact non-functional. Moreover, training and retention of motivated and community-based teaching faculty is also challenging.

We recommend that undergraduate medical schools should change and update their curricula in order to match competencies to population needs, move beyond predominant hospital orientation to primary care, and develop leadership and team work to improve health system's performance. This argues for community-based medical education despite the enormous economic, political and social challenges that hound the world today.

Blending project- and game-based methodologies to create a conducive learning environment

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There is a tendency to think that students learn best when they are serious and quiet. However, a noisy classroom, with students that are actively engaged, is often a more conducive environment for learning. This paper reports on a research project that deals with the teaching approach followed by university teachers in a skills development course for Engineering students. The course is presented to first year students at a face-to-face contact university. This course is compulsory for a diverse group of students in terms of age, gender, race, religion, and, most significantly, their academic preparedness for university studies. Learning opportunities should, therefore, be structured to engage with students on their specific level of competency. The challenge is to lead students to proficiency without discouraging the 'under-prepared' and boring those that are ready for university studies.

The course integrates a number of innovative teaching methods, which break away from the traditional approach of teaching where the professor lectures and the students take copious notes. In this paper, the focus is specifically on project-based learning and a game-based approach to learning. Three learning activities, namely an Amazing Race game, a GoGreen project and a LEGO team task, are discussed and linked to existing learning theories, as examples of how these two teaching approaches can be utilised in higher education.

The research follows a design-based methodology and a mixed methods approach. Data were gathered longitudinally by means of focus group interviews, observations, reflective essays and the academic performance of students. Based on an analysis of these data sets, the impact of project- and game-based learning on the performance of students in this course has been determined. Findings include the fact that a wide variety of skills and competencies that are essential for achieving academic success can be incorporated in these games and projects. Furthermore, since students were actively engaged in a manner that they experienced as fun, the transfer of the necessary skills seemed to happen intuitively. Finally, the study found that learning took place without boredom for those students that are well prepared for the cognitive challenges of a higher education programme, and over-engagement for those students who were perceived as being 'under-prepared'.

PhD students' perspectives on supervision approaches and their influence on the postgraduate outcomes at a selected traditional university

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This study investigated the perspectives of doctoral students on the supervision approaches used in their respective departments, and the influence they have on the postgraduate outcomes. The study adopted a post-positivist paradigm and a parallel mixed methods design. A purposive sample of 30 participants, which included full-time and part-time doctoral candidates from five faculties, was drawn. Data were collected through a survey questionnaire and interviews. Qualitative data were analysed thematically and also through the constant comparison technique, while survey data were analysed statistically.

Quantitative findings suggested a relationship between the supervision approaches adopted and the postgraduate outcomes likely to be achieved. These findings were corroborated by qualitative findings on postgraduate outcomes such as research problem solving, skills development, interpersonal skills, and formation of professional identity. These outcomes are achieved in varying degrees depending on the levels of developmental support and the supervision approach adopted. Recommendations for improvement and further development of supervision practices, as well as scholarship on the supervision approaches that would foster holistic development of postgraduate students, are made.

Development of 'soft skills' through extra-curricular project work: The case of the Jozi Digital Ambassadors Project in Johannesburg, South Africa

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The primary focus of Engineering curricula is technical competence. However, literature suggests that a common shortcoming of Engineering graduates pertains to so-called 'softer' skills or interpersonal skills which are described by complementary competencies, such as leadership, team work, time management and communication. Although not core to Engineering activity, these competencies are necessary in the workplace. Experiential learning of these competencies can occur by giving Engineering students the opportunity of involvement in extra-curricular projects that explicitly aim to develop complementary competencies. This paper discusses one such opportunity.

The Jozi Digital Ambassadors Project was launched by the City of Johannesburg with its aim being to roll-out free Wi-Fi to 700 000 Johannesburg residents who previously had no access to free public internet. A further aim was to provide education and training to these residents regarding how to access the free Wi-Fi and how to make use of the online services offered by the City. 'Digital Ambassadors', unemployed young people who reside in the areas concerned, were appointed to undertake this education and training on behalf of the City. The University of Johannesburg, tasked with providing mentorship to these Ambassadors, identified Engineering students who volunteered to work as mentors.

Structured interviews with the mentors were conducted at different stages of the project. The focus of the interviews was on the students' motivation to participate in the project and their expected skills development. It was evident that the development of complementary competencies was one of the factors that motivated the students to join the project and that their involvement in the Digital Ambassadors programme gave them access to opportunities to develop their leadership and communication skills in a way that the formal university curriculum did not.

Transdisciplinarity in the classroom: Building solutions to challenges through collective problem-solving

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Curriculum development is still looked at from a siloed perspective. Links and parallels between disciplines are not aligned to the real-world practice for such disciplines, especially in communication. In order to break down the barriers created by structural and curriculum design, educators need to design the teaching and learning methods across and between disciplines innovatively through collaboration.

Insight from industry experience exposes the lack of preparedness of students because of the pedagogical approach to their specialised learning, which creates challenges in the workplace for multi-disciplinary environments. The observation of the lecturers was that design students and public relations students at UJ do not ever interact during their education experience, which perpetuates the status quo. This leaves students ill-equipped to adjust when they enter industry, as they do not have the requisite skills to communicate and collaborate effectively and efficiently from a transdisciplinary approach. Transdisciplinarity generates inclusivity and affords societies creative ways of seeking solutions to challenges that may appear intractable from a multiplicity of angles. Educators acknowledging the need to develop frameworks for joint problem-solving involving diverse stakeholders is unquestionable for transformation and sustainability.

This informed the decision to create a collaborative project between Digital Design and Strategic Communication departments to build the bridge from education to practice within the classroom, i.e. praxis. The reality of the curriculum requirements cannot be ignored, but through teaching innovation, this project was able to demonstrate how transdisciplinarity can be achieved successfully, using the social theme of gender inequality. Gender inequality is a societally prevalent and persistent issue in South Africa that will impact students, and so was a relevant and relatable topic to engage the students. From a curriculum requirements perspective, the design students needed to develop their translation of strategic communication objectives into appropriate creative solutions through conceptual communication design. The public relations students, on the other hand, needed to understand how to take research and develop insights that inform a globally relevant communication strategy and message.

The students needed to work together to identify organisations and develop communication strategies to tackle and propose solutions to the organisations' contextual gender inequality issues. The communication design needed close collaboration between PR groups and design groups to develop holistic communications. The paper will showcase how multi-pronged assessment design, which allows for common collaborative spaces and mediated engagement by educators between student groups, can yield significantly more creative and sustainable solutions.

There is transformative value in accounting for the complex challenges faced by society through education and this generates inclusivity between academia, civil society and policy-makers. Through flexibility in the classroom, frameworks for joint problem-solving involving diverse stakeholders is made possible. Students are encouraged to work from a multiplicity of angles in building solutions to challenges that may appear intractable creatively, yielding valuable delivery and learning by and for students.

Developing communication education from within: Communicating and understanding from the student's perspective

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Education is generally dictatorial in nature. This forces students to become parrots, replicating rather than communicating their understanding of the curriculum and course material. This stunts the development of students, who leave with qualifications that they are unable to apply to different situations. Students are limited in using their education to recreate the learning and become solution-based thinkers that build and develop innovative industries. We need to allow communication in the classroom to foster an environment that allows students to learn through self-reference.

Students are very dependent on lecturers as instructors. By lecturers treating them as receptors rather than initiators, students become passive receivers of information and are unable to recreate their understanding within the context of the curriculum. They struggle to think for themselves and come up with independent thought on solving problems and answering from their own perspective. There's little room for flexibility in university curriculums to co-create knowledge, rather than train students to replicate information.

The purpose of this paper is to work towards building independent thought development through communication in the classroom. It explores ways of converting students into self-creators and independent thinkers that are confident in their interpretation and not simply information replication. We can achieve more by collaboration than by being instructional, and by working towards the co-creation of knowledge. Communication in the classroom should be an opportunity to learn from both perspectives, in order to build a more robust curriculum that empowers students to become knowledge creators. Through this process, students can become teachers and teachers can become learners in an endless cycle of co-creation.

Self-referential and self-created knowledge is prioritised, rather than knowledge extracted from lecturers that fosters solution-based thinking. The reality is that knowledge becomes outdated quickly and teaching students methods to help them recreate learning will take students further in professional settings and open opportunities for sustainable innovation.

Qualitative methods to ascertain the effectiveness of this communication teaching style were used and the challenges inherent in this type of approach, particularly for students, were highlighted. Using comparative observations from a first year group and a third year group, both from the University of Johannesburg's diploma students, the methodology of observation highlights three key issues:

1.   Working to un-teach past learning behaviour inherited from school
2.   Introducing self-referential learning
3.   Discovering the challenges to students and lecturers in developing co-created knowledge

Each student group was assigned three summative assessments over the course of a semester and the results of these assessments form the basis for feedback to the students and observed results of the teaching method. The comparisons are used to draw the parallels in learning and experiences from using a self-referential approach to learning communication principles and methods.

Communication co-creation rather than information replication is the key to recreating knowledge in the classroom. By allowing students the opportunity to unfold in their learning, they become instruments of solution-based thinking, rather than information replicators.

Educators need to become students themselves, in an endless cycle of learning. The endless cycle (equifinality) of curriculum development becomes a dominant theme in recreating relevance through education development.

Frontstreeting: A dishonorable instructional practice in academia

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Educational research widely neglects the effectiveness of multicultural education courses among teacher candidates of colour (TCCs). In this article, the experiences of six Black preservice teachers enrolled in a diversity course are explicated to unearth nuanced pedagogical missteps that hinder their development as students of asset pedagogies. Undergirded by the five principles of critical race theory, findings reveal that TCCs exhibit varied forms of resistance to monolithic content that frame minoritised groups in the deficit. In this particular study, Frontstreeting refers to the vulnerability teachers of colour experience when their minoritised identities are fetishised in diversity classrooms, through an expectation of confirmed lived experiences or expert knowledge of their demographic groups.

The article explores the general privileging of whiteness in multicultural education content and practice while challenging teacher educators to reconsider how we engage students from diverse demographic groups. This presentation is part of a larger ethnographic study at a USA-based public research institution with two required diversity courses in an early childhood licensure program. The participants discussed here are enrolled in the advanced Diversity course and two teacher educators of colour. Data were collected through six months of participant observations, field notes, interviews and various artefacts. In an attempt to humanise participants and reinforce the findings of the study, triangulation tactics were heavily exercised.

Culturally Relevant Pedagogy (CRP) is the guiding framework for this study. CRP references "a pedagogy that empowers students intellectually, socially, emotionally, and politically by using cultural referents to impart knowledge, skills, and attitudes" (Ladson-Billings, 1994 p. 17-18). I aim to explicate the use of CRP in multicultural education courses, specifically with minoritised populations. As two teacher educators attempted to be culturally relevant, Black students felt stereotyped and underserved. Their construction as course content resulted in resistance within a community of practice (Lave & Wenger, 1991). Despite faculty efforts to legitimise disenfranchised aspects of Black culture, students characterised the pedagogy as a "Frontstreeting". When disparities of achievement, criminality, economics, and health were discussed, Black students felt negatively overrepresented. Consequently, their cultural competency development stalled and consciousness shifts were obscured.

This presentation addresses the SOTL and Social Justice subtheme of the conference because it is situated in the hitches of inclusive pedagogy in post-secondary spaces, particularly when recruitment of more diverse students is promoted. For example, study participants, who were heavily recruited for their diverse experiences and perspectives, rejected monolithic constructions of their ethnic culture in university courses, policies and practices because such practices are problematic and counterproductive to their learning and development. Similarly, discourses that frame diverse students in a single cultural group hinder equitable learning experiences for all constituents. Thus, the conferences strand "The question of knowledge, cognitive justice and indigenous knowledge systems" is relevant to the experience of these participants and broader groups of ethnic minority students at postsecondary institutions. This study speaks to their complex navigation of higher education.

Teaching and learning in a South African university: Are peer facilitators' strategies succeeding?

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The achievement of any academic objective depends on the manner in which the students are engaged in the classroom. The aim of this paper is to examine the strategies use by peer facilitators to facilitate teaching and learning in order to improve students' academic performance in a university in South Africa. The broader study used a qualitative research approach and a sample of 31 participants including programme coordinators, peer facilitators and first year undergraduate students who were purposefully selected from four faculties. The study made use of in-depth interviews and focus group discussions to collect data. Data collected were coded and analysed thematically using the main and sub themes that emerged from the field to make sense of the experiences participants shared.

The results indicate that peer facilitators of peer academic support programmes use different strategies to engaged students in an interactive manner to improve their academic performance. These include discussions, questioning and redirecting questioning techniques. It is concluded that these strategies have been successful to an extent in trying to engage students to learn. However, some students are still not okay since they are not given individual attention and also many tutors are not well equipped with the facilitation skills required to engage students in learning, as alleged by Astin (1984). Similarly, most students are unable to participate at all, owing to a lack of self-confidence and a perceived language barrier. Thus, poor academic performance still persists.

It is recommended that the programme coordinators need to organise a continuous training process for all peer facilitators, in all departments, to be conducted by TLC in a more integrated and holistic manner than it is at present. This will ensure that all peer facilitators acquire the same pedagogic skills that will help them solve students' academic problems across all faculties.

Theory as a verb: Conversations about dilemmas in higher education

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Recent student-initiated protest at South African universities has forced teachers to question the very essence of what we do. This presentation will reflect on the theoretical resources we have employed to make sense of the multiple dilemmas and complex decisions that confront us in our teaching lives in our different institutional contexts. The contradictory push-pull factors that academics live with in the global south under globalising conditions require us to work more creatively with theory. Instead of 'front-loading' borrowed theories and taking firm positions on them, we explore how we can begin with conversations about dilemmas from practice.

In this presentation, we will reconstruct conversations we have been having over months in which we confront challenges such as: how do we teach academic writing, without reinforcing the 'Anglonormativity' (McKinney 2016) of the university? What does transformative work look like in our different institutional contexts where priorities and student needs point in different directions? How do we deal with the deeply discriminatory and entrenched deficit views of students without judging or alienating the teachers we work with? Our conversations will highlight the inadequacies of using a single theoretical lens that is imported and applied to a situation. We will look instead at theory-making as a verb, as a process of thinking in action.

As SOTL grows as a field against a background of sharp inequality and contestation, we argue that it is particularly important to work with complexity, to listen carefully, to be open to 'both-and' ways forward. We hope that this presentation with its conversations may encourage more discussions about the challenges we face, and the role of theory in making sense of them. If teachers are encouraged to name these challenges, we can travel together in a more open, contextually alive way.

Decolonisation and access with success: Approaches for sustainable social changes in developing South African societies

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With many African countries' histories of colonialism and deprivation to access to education, economic development, health care, security, and many other services, the movement for freedom in most African nations has been characterised by the agitation for access and inclusion of African people in all sectors of their societies, including education. Many African countries have recognised the move to give access to tertiary education as one of the major successes of their liberation. However, access with success is often denied, leading to consequent underdevelopment.

The study set out to investigate the correlates of participatory access among undergraduate university students in South African universities. Literatures on decolonisation theory were reviewed and, thereafter, a university in South Africa, which is seen as a leading nation in university education in Sub-Saharan Africa, was chosen as case study. Questionnaires were administered to 400 randomly selected third year students while interviews were conducted with 8 lecturers.

The outcome of the study shows that while participatory access to university education is partly caused by neo-colonialism and contributes to high drop-out rates in South African universities, decolonisation and access with success are the solutions to sustainable university education and development in South African society.

Comparative Learning challenges experienced by students in universities of developing nations in Sub-Saharan Africa

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The study investigated learning challenges experienced by university students in universities situated in developing Sub-Saharan African countries. Various literatures were consulted and the indication showed that learning challenges are the dominant cause of high drop-out rates. Questionnaires were administered to 2 335 randomly selected students from selected universities in South Africa and Nigeria.

The outcome of the study shows that, besides the general trend of challenges in universities across the globe, six common challenges are visible in the universities that are situated in developing Sub-Saharan African countries. The causes of these challenges cut across failure in responsibilities of the various stakeholders in the field of education. The effects are monumental, both to the students and the society. The paper suggests recommendations on the need for teaching and learning centres to be well equipped, staffed with qualified and adequate man power. Also, the need for policy makers to work in alliance with teaching and learning centres is suggested.

Field research experiences of Environmental Health undergraduate students

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This research offers new knowledge about perceptions students have about household level field research. The Department of Environmental Health, in collaboration with the Medical Research Council (MRC), has conducted the Health Environmental and Development (HEAD) Study through annual training and fieldwork for the past ten years. The HEAD study is an initiative of the partners of the World Health Organisation Collaborating Centre for Urban Health (WHOCCUH).

The overall goal of the study is to build research and environmental health capacity among environmental health students of the University of Johannesburg and Environmental Health Practitioners of the City of Johannesburg. As part of their experiential learning, second year environmental health students are trained in the research process and interview techniques to conduct the fieldwork for the HEAD study. Students are supervised by representatives from the University of Johannesburg and the Medical Research Council.

The project has been very successful, providing students with field research experience augmenting their work integrated learning. Student reflections highlighted that the field work experience is invaluable and exposure to typical household level environmental health challenges enhanced their practical competencies over theoretical content. The field experience directly benefits the students by building their competence and confidence with grassroots level community engagement. Engaging in research is not simply the pursuit of new knowledge—it provides students the opportunity to connect one-on-one with researchers on the project and develop field research skills which add value to their skills set early on in their training, helping them to become rounded professionals in Environmental Health. Performing undergraduate research also helps students build a strong resume and a marketable skills set for their professional careers. We hope it may serve to inspire the development of similar partnerships and further qualitative and quantitative research.

Neither fish nor fowl – exploring the cultural tensions in third space practitioners in academic environments

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The complex, and sometimes internally conflicting, identities and tensions experienced by professionals working in an academic space has been explored in many ways. Whitchurch (2006) used Bhabha's postcolonial third space theory to explore the shifting identities of professional staff in an academic institution. She identified a third space professional as one with blurring and hybrid identities as both professional and academic (Whitchurch, 2006). The tensions between the subcultures in an academic setting was explored through the lens of a third space by Verbaan (2014).

The cultural third space that Bhabha theorised is a hybrid space that emerges when someone from a historic, or first, cultural space is expected to function in a third space that could be temporal (Bhabha, 1994) or more permanent (Whitchurch, 2006). Bhabha refers explicitly to the tension in the third space that results from the continuous negotiation on the differences between the cultures of the first and second spaces (Bhabha, 1994:218).

Last week I (Ria) had an uncomfortable experience where I was forced to examine why I felt different than others about a managerial reporting practice at the university. Why did I not experience a violation of my identity as my colleagues obviously did? What gives me a tolerance to the managerial expectations? Am I not a real academic?

In this paper we will use group ethnographic storytelling to explore the cultural tensions experienced by individuals they have formed a stable or unstable third space as it acknowledges the subjectivity and emotionality of this process. This move could be either from a managerial role to an academic role, or the opposite.

We (Shireen and Ria) have both moved from one cultural space to another. I (Ria) moved from a managerial culture in industry to an academic culture. I must say that my first step was into a business school and the culture there was already a hybrid between 'real' academia and business. I am not sure if this made it easier for me to move into the academic culture or actually prevented me from fully immersing myself in it. I (Shireen) found that moving from an academic to a management position blurred the boundaries between the academic and managerial, since the nature of the new position required both aspects to be present. At an institutional level though, my identity got characterised into something called 'support', propped up by institutional structures and organograms, which had to slot people, identities and expectations somewhere. It was particularly confusing that former colleagues now related to me on my 'support' and management, and were less inclined to include me in matters academic.

Surfing the semantic waves to and through Honours level research

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The Bachelor Honours Degree in South Africa serves a dual role by preparing students for higher degrees as well as possible registration with professional bodies, including that of the Quantity Surveyor (QS). The SA professional councils also have professional technologist designations for those with BTech qualifications.

The South African Council for the Quantity Surveying Profession (SACQSP) is offering 15 modules over 3 years to provide the opportunity for BTech holders to acquire the required content knowledge and demonstrate learning outcomes to attempt registration. However, the completion rate of such modules are poor and it does not lead to a qualification or the opportunity to pursue further study at NQSF level 9.

It is possible for individuals with a cognate BTech to enter into a full time honours programme, but access is limited through the limitations set by the professional councils on intake of 'differently qualified' students. In addition, it is extremely difficult for someone to take a whole year during mid-career, and these students often struggle to cope with the research component of the qualification. The demand to access full professional registration and higher degrees has not been realised on a significant scale.

In response to this need, Wits University has introduced a route to obtaining its existing honours degree in Quantity Surveying utilising part time courses taught at weekends. Central to this effort is preparing BTech graduates, many whom are returning to academic study after some time, to enable them to succeed with honours level study, particularly in respect of the research component. A specific short course based on an undergraduate capstone course of a cognate degree was made a prerequisite for admission to the part-time-Honours programme.

In this paper Legitimation Code Theory (LCT) is used as a lens to conceptualise the process to and through completing a research project at honours level. Knowledge structures, semantic gravity, semantic density and semantic waves are used to look at the cumulative knowledge building that occurs in this process. Illustrative examples from both the part-time honours cohort as well as full-time honours cohorts are used and supported through analysis of both quantitative and qualitative data.

During their honours research project, the QS student has to move from acquiring knowledge that is hierarchical to knowledge that is more horizontal in nature. The professional is expected to be comfortable moving across the spectrum of semantic gravity and semantic density. This can only be achieved through moving in patterns through semantic density and semantic gravity that can be described as semantic waves (Maton, 2013). The research project, in particular, requires knowledge that is semantically dense. It also requires the student to move between the lower semantic gravity of the general or abstract problem articulation to the higher semantic gravity of the specific or contextualised problem articulation or solving. The formulation of a less contextualised but still contextually relevant research problem requires transition across the plane of semantic gravity.

Introduction of blended learning for first year Cost Accounting diploma students (University of Johannesburg, Soweto Campus)

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This paper is focussed on how we, as lectures of Cost Accounting at the University of Johannesburg (Soweto Campus), are changing our teaching pedagogy. The decision was made to move from a traditional approach to a blended learning approach.

With the change in our teaching method, we want to help our students to move away from being rote learners, to become active lifelong learners. No longer will the focus only be on content, but also on the skills our learners will require once they start to work. Skills like critical thinking, collaboration, communication and creative thinking. The focus must no longer be on 'learning about', but 'learning to be' (Gravett & Geyser, 2007). This is also in line with the UJ Teaching Philosophy.

The change from a traditional classroom to a more blended environment is forcing us as lectures to think more about the what, why, and where and to look for ways that we can deliver content better and more effectively. We are now drawing more from constructivist and connectivism theories, where previously, without realising it, we were drawing from behaviourism, with the addition of a little bit of cognitivism.

The teaching of theory (lower order thinking) is now done out of class by using videos, articles and other technology tools that are available to our students. At the beginning of the class, a quick objective test is conducted to assess the student's level of understanding. This allows the lecturer to only focus on the concepts that most students struggles to understand. This allows the lecturer to focus more on higher order work during lectures. Exercises (calculations) are done during the face-to-face contact sessions where lectures are available to assist students immediately (Prensky, 2011).

The study is based on preliminary data gained from students, tutors and lectures, collected through questionnaires and focused groups, as part of an on-going action research project.

POSTER PRESENTATIONS

Effectiveness of a locally produced spay model as a clinical teaching tool for final year veterinary students

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Performing an ovariohysterectomy on a bitch (commonly known as a spay) is a Day One competency required of veterinary graduates. Final year veterinary students perform three to four live animal spays during their surgical rotation within the Onderstepoort Veterinary Academic Teaching Hospital. This is often the first surgical experience these students have. Practicing on a spay model to handle surgical instruments, to place ligatures, suture and to identify the reproductive tract and other anatomical structures, could produce more competent and confident students. It could also shorten anaesthesia and surgical times, by the time the first live animal spay is done. As commercially available spay models are very costly, a spay model was developed locally. This model consisted of a spay model housing kidneys, spleen, intestines, bladder, a replaceable reproductive tract and a multilayer suture skin.

The objective of this study was to evaluate if one simulated spay using the locally developed spay model decreased the surgical time for the students' first live animal spay. One hundred and fourteen final year veterinary students were allocated to a spay model group (n=48) or a control group (n=66). Both groups received similar theoretical instruction on performing a spay by means of student notes, a lecture, a video and a demonstration of a spay, performed by a clinician. Students in the spay model group then performed a spay on the model before doing the live animal spay. The control group had no exposure to the spay model before they did their live animal spay. Students in the spay model group completed a questionnaire (n=46) after performing their first live animal spay. Surgical times for the students' first live animal spays were recorded on standard anaesthetic monitoring sheets. Surgical times were transformed using the natural logarithm prior to statistical analysis and associations estimated using linear regression.

Results showed that the spay model exposure significantly reduced surgical time for the students' first live animal spay (p=0.005). Analysis of the questionnaires also showed that 91% of the spay model group students felt more confident and 73 % of spay model group students were less stressed when doing their first live animal spay than what they would have been without the exposure.

The locally produced spay model is an effective clinical teaching tool, as it increased confidence, lessened stress and significantly reduced spay surgery time.

The spay app: an interactive approach to preparation and improved surgical competence

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Veterinary graduates are expected to be competent in performing an ovariohysterectomy on a bitch (commonly known as a spay). This surgical procedure is a Day One competency, and final year veterinary students perform three to four live animal spays during their surgical rotation within the Onderstepoort Veterinary Academic Teaching Hospital.

In preparation for their first live animal spay, students are trained by means of student notes, a lecture, a video and a demonstration of a spay, performed by a clinician. A survey amongst final year students (n=58) showed that 38% of students did not feel adequately prepared for their first spay in spite of the training provided. In order to better prepare final year students for their first live animal spay, an interactive touch screen spay application was developed, that runs within the Android operating system. It is a "first of its kind" application in educational veterinary science.

The application guides the operator through the surgical steps of the procedure on either a smartphone or a tablet. The main surgical steps are divided into sub-steps. Each sub-step shows a high-resolution photograph of that part of the procedure, an explanation of the surgical technique, an "important to know" and a "good to know" field. The operator uses touch screen technology to select surgical instruments and suture materials, to indicate the surgical incision line and where ligatures should be are placed. There are also some links to video clips, illustrating important aspects of the steps.

The first version of the application was tested by students and clinicians of the Onderstepoort Veterinary Academic Teaching Hospital, and by veterinary educators at an international education symposium. Feedback and suggestions for improvement were actively sought. Feedback indicated that the application could be a valuable teaching tool that could encourage student-driven interactive learning and better prepare veterinary students for their first live animal spay. Implementation of the suggestions for improvement is currently underway.

The final version of the application will also have a "practice" and a "test" mode, which determines if feedback is given after each step or after completion of the full procedure. The application can then be used for assessment purposes. The prototype of the application could also be adapted for other surgical procedures such as canine castrations, enucleations and caesarean sections.

Effect of a short-term intervention to enhance the reading efficiency index among university entry-level students

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Despite nationally and internationally funded student support initiatives with varying success rates, there are several factors causing low student performance in South African universities. Transitions from teacher-centred to learner-centred education demands 'self-study', i.e., students in higher education to work on their own. Modules or courses are linked to academic credits where one credit is equivalent to 10 notional hours. Almost one-third of the notional hours is self-study. For example, in a 16 credit module, there are 160 notional hours and only about 50-60 hours are contact hours with lecturing staff and the remainder is for self-study. As such, reading efficiency and comprehension are essential for learning in higher education in all courses.

There are limited remedial and proactive steps to positively address the problem. Student success is found to be positively correlated to reading efficiency. A student's reading efficiency index (REI), a benchmark measure, is calculated as reading speed (words per minute-WPM) multiplied by comprehension (level of understanding). As a small proactive initiative, this study assessed the effectiveness of an intervention program that was designed to improve reading efficiency among entry level commerce students at a former historically disadvantaged institution to test if an intervention on reading efficiency improved students' performance. The positivist paradigm with a quantitative research approach and a pre-test-post-test research design was adopted. Barretts' as well as Bloom's taxonomies applied to reading comprehension served as the basis of the theoretical framework. One first year commerce class was selected. Since all members of the cohort were willing to participate in the research, the population and the sample were the same with 140 students. The instrument demanded the students to read different genres of texts and the use of different reading strategies, comprehending the information and translating them into mind-maps. The purpose was to measure the reading speed and comprehension. A pre-test was administered.

Based on the data, the REI was computed using the formula cited above. Students were then trained on different reading strategies by a professional trainer over two days. The intervention consisted of increasing concentration, avoiding re-reading for understanding, reading effectively off a computer screen. The intervention was followed by a post-test and REI was computed. A paired sample t-test was used to investigate the effect of the intervention on the REI. The results showed that the intervention had a positive effect on students' REI. This serves as a pointer to the need for further research in other courses in the same HDI as well as in other higher education institutions.

Research learning with the systematic literature review in the management classroom

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Systematic literature reviews, as opposed to narrative reviews are conducted by researchers to obtain a reliable, objective overview of evidence on a specific topic (Denscombe, 2014). They aim to comprehensively identify and track down all the available literature on a specific topic (Aveyard, 2010, p. 14). The systematic review methodology originated in the medical sciences where it has a critical role to replace primary research as the source of evidence on which decisions are based (Mulrow, 1987). Since the early 2000's the systematic review has slowly been adopted in different fields of management (Tranfield, Denyer, & Smart, 2003), as it is an effective way to synthesise management knowledge and offers "management academics and practitioners a new model for the production and application of knowledge" (Tranfield, Denyer, Marcos, & Burr, 2004).

Although the value of the systematic review has been theoretically shown, many management scholars are still sceptical of the systematic review and, unlike in the medical sciences, it is still viewed as being of lesser quality than primary research. It is also only in the last few years that some methodology textbooks have included chapters on systematic review methodology (Bryman, 2012; Descombe, 2014; Saunders, Lewis, & Thornhill, 2012). Furthermore, although management practitioners are expected to employ evidence based practice, few management graduates are trained in doing a systematic review (Briner & Denyer, 2012). Research methods training for most management students relies on traditional teaching methods, which includes data collection and analysis of primary data (Briner & Walshe, 2015). It is only recently that, in addition to training of traditional methods, management pedagogy, and more particularly scholars who focus on teaching research-related subjects, have turned their attention to the teaching of the systematic literature review (Armitage, & Keeble-Allen, 2008; Briner & Denyer, 2012).

This qualitative study focuses on postgraduate students' experience when engaging in a systematic review process as part of their degree programme. This paper will present some reflective feedback obtained during focus groups and interviews with students. The outcome is to gain better understanding of student engagement with systematic reviews with the aim of improving module content and presentation. Thirty students that are part of a B Com Human Resource Management programme at a large residential university in Gauteng in South Africa are part of the current study. Data were gathered through various means, including electronic questionnaires, reflective diaries and focus groups.

This study is part of a larger project that spans over three years (2017-2019) which focuses on research learning that is the learning that takes place through engagement with postgraduate research activities. More specifically, it focuses on student engagement with, and transformative learning through, the systematic literature review. The first stage of the study, which is reported on in this presentation, focuses on student's initial experiences and engagement when conducting a systematic review.

Nested layers of interaction in knowledge productive learning in higher education: A case study

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The aim of this presentation is to describe the layers of interaction in one particular faculty at a local higher education institution with the purpose of clarifying the nested nature of such interactions and their contribution to the development of knowledge productive learning.

The study rests on the notion that interaction in educational endeavour reaches 'beyond information given' in interaction to construction of new knowledge (Tillema, van der Westhuizen & van der Merwe, 2015). Knowledge development is viewed as situational (Bereiter, 2002) and as such focuses on learning from practice through exploring and seeking meaning within the actual context in which the learning takes place. Tillema, et al. (2015) proposes that 'informed participation' is crucial in this process and is supported by active and progressive interaction between professionals in the situation which accentuates that knowledge is embedded in the practice itself and agentic in nature (Tillema & van der Westhuizen, 2006). Interaction in this study departs from the notion of "action" between people in communicating, sharing, engaging and viewing their thoughts and understanding, and thus comprises normative as well as interpretative characteristics (Koole, 2015).

I further assume that interactions in professional learning spaces, such as faculties in higher education institutions, should extend 'knowledge building' to 'knowledge productivity' which requires participants to develop competence in adapting, renewing and creating knowledge for their practice (Tillema & van der Westhuizen, 2006). To achieve knowledge productivity, professionals engage abilities of gaining understanding of issues through appraising relevance of the shared knowledge during interaction, of altering and shifting their perspectives relative to these issues and, finally, committing to enactment of the new insights and perspectives in own practice (Tillema, et al. 2015).

A single case study design was implemented to explore and describe the conversations between academic staff and students during work-integrated learning framed by a Symbolic Interactionist perspective. Interactional activities were investigated using Clayman and Gill's (2004) 'nested layers' of activities as the analysis framework. Professional interactions were analysed using conversation analytic methods, predominantly on the macro- and microscopic layers of learning interactions and their contribution to knowledge productivity.

The preliminary findings indicate that the macro- and micro-layers of learning interaction are co-existent and co-reliant on a meso-layer of learning interaction relating to the interactional intent of each participant, relational conditions within the interaction, and the pedagogical task structure of openness and agency to knowledge productivity.

EXHIBITION

Observing cities for shelter prototypes

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Recurring themes of change and transformation in cities are observed in this series of high resolution images, mostly nocturnal, but in cases such as mining sites, by day.

"There are more displaced bodies across the globe than at any other time in history, at least 24million people" (http://www.aljazeera.com/news/2016/10/ten-countries-host-world-refugees-report-161004042014076.html).

The city of Johannesburg displays extensive changes in landscape, as the dry soil was extracted from below for gold, leaving large artificial mountains. The same mine-dumps are removed as new methods of extraction develop. Similar shifts in demography have occurred as the Eurocentric workforce, which consulted for the mining industry, left the city after the seventies, to re-establish itself as a cosmopolitan African metropolis. The resulting fabric reveals tall towers interspersed with small buildings, a state of arrested development. In other cities, the growth of informal living and refugees have marked great changes, as seen in the movements of refugees to Europe and South America.

High resolution images reveal much information about these shifts. Periodic documentation reveals change in structure, demographics, decay or gentrification and traces of the homeless at night, confirmed by walking the city in daylight.

At a global scale, cities all have moments of growth and prosperity, followed by periods of decay during war, unrest or depression. Most cities can be traced back to their origin, a river, a valley between mountains, a port, a crossing of routes, or the discovery of precious metals/minerals such as Johannesburg and Sao Paolo. During the reconnaissance walks and documentation of cities, patterns of refuge become apparent.

Students were asked to design a minimal but intelligent shelter for the invisible refugees who roam around the city, chosen from five cities documented. For this to function effectively, they need to consider cultural and climatic context, which affects thermal comfort as well as cultural identity. In the design process, identity of the homeless as residents of their city must be considered, so that this shelter serves as an "Intelligent Skin", functionally responsive to its context, but like its natural counterpart, it is also the surface of identity.

Students from diverse backgrounds with diverse financial capabilities are enabled using hand built prototypes and numerous sketch models, as opposed to CAD drawings which require computers. Both the research on cities and the method of studio prototypes are aimed at decolonisation.