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Title: A Curriculum for Health Care in the 21st Century: Reform and Renewal of the MB,ChB Programme at the Faculty of Medicine and Health Sciences

Contribution type: Research-based

Author(s): Volschenk, M; Geiger, J; Smit, L; Blitz, J; van Heerden, B

Keywords: Curriculum renewal, carpe diem process, process evaluation

Abstract:

When Stellenbosch University (SU) launched an institution-wide process of holistic programme renewal in 2017, the Faculty of Medicine and Health Sciences (FMHS) utilised the opportunity to embark on a comprehensive and innovative curriculum renewal process involving all six years of the MB,ChB programme. Large-scale curriculum reform usually constitutes a complex and lengthy process. The Carpe Diem methodology (Salmon, 2014), which informs curriculum renewal at SU, offers a novel 6-step approach that facilitates rapid and dynamic learning design through collaboration and teamwork. The methodology incorporates the notions of scaffolding, threshold knowledge(s), equivalence and feedback as powerful mechanisms for learning.

In response to global (Frenk et al, 2010), national and local imperatives for the transformation of health professional education, the new MB,ChB curriculum, which is scheduled for implementation in 2020, endeavours to equip graduates with the competencies needed to effectively deliver 21st-century healthcare in increasingly complex contexts. Informed by transformative learning theory, the new curriculum structure resembles a double-stranded DNA helix that builds on fundamental concepts and principles along a developmental continuum. One strand signifies core clinical content, while the other represents the FMHS graduate attributes. The DNA base pairs symbolises a longitudinal focus on the self, the patient, the community and the health care system.

A process evaluation study is currently in progress to inform our understanding of how the processes followed by the FMHS facilitate the envisaged curricular change. Data collection consists of a review of documents pertaining to the pre-implementation phase, as well as unstructured individual interviews exploring students' and faculty's perceptions and experiences of the curriculum renewal process to date. Focus group interviews with each of the nine new module teams are planned for mid-2019. Data is thematically analysed by members of the research team.

Initial findings suggest that, although many of the role players feel overwhelmed by the rapid speed at which curriculum renewal progresses, the collaborative team approach that characterises the process provides them with a sense of empowerment. Other emerging themes accentuate the importance of change management, faculty development, curriculum mapping, and the identification of potential barriers to active involvement during a curriculum renewal process.

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Title: A Prison-University Educational Partnership: Rehumanising Learning through Collaborative Course Design

Contribution type: Research-based

Author(s): Nel, M

Keywords: Collaborative course design, transformative learning theory, social justice, holistic student development

Abstract:

In the context of an educational partnership which entails SU students learning together with UNISA students incarcerated at Brandvlei Prison, this study aims to investigate the impact on all participants (SU academics, SU students and UNISA students) of being involved in designing the interdisciplinary pilot project. Focus group interviews, observation field notes and reflective journaling are used as data in a case study aimed at exploring how collaborative course design could contribute to rehumanising learning: specifically, empowerment, transformation and holistic student development (HSD) of participants.

The theoretical lens for this research combines critical pedagogy, social justice pedagogy and transformative learning theory/pedagogy. Critical pedagogy views teaching as inherently political, with social justice and democracy being embedded in teaching and learning (Giroux, 2007). Socially just pedagogy prioritises making the learning experience equitable, encouraging educational leaders to identify possible bias through critical reflection (Furman, 2012). Transformative learning theory posits that exposure to new experiences and perspectives, including interaction with diverse peers, enables students to reflect and engage in dialogue with others about this experience (Mezirow & Taylor, 2009; Quinlan, 2011). Accordingly, transformative pedagogy allows students “to perceive social, political, and economic contradictions and to take action against the oppressive elements of reality” (Brown, 2004; Freire, 2000). It “draw[s] on the strengths of students’ lived experience to create a forum for their analysis of the world around them” (Giroux 1992; Mack, 2010). This paradigm conceives of learning (and educational leadership) as praxis – involving the “continual, dynamic interaction among knowledge acquisition, deep reflection, and action at two levels – the intrapersonal and the extrapersonal – with the purpose of transformation and liberation” (Furman, 2012).

Although Quinlan does not mention a social ubuntu-focused dimension of learning explicitly in defining HSD (2014; 2011), my preliminary participant reflections indicate that feeling connected to others, humanised rather than objectified, does indeed contribute to HSD. Collaborative course design undertaken together with a particularly diverse group, where issues of power, marginalisation and inequality are manifested in very real and concrete ways, is an ideal context for exploring how connectedness may foster holistic development, empowerment and transformative learning.

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Title: Application of Peer Teaching Using Video Technology

Contribution type: Innovation-based

Author(s): Cilliers, S

Keywords: Peer teaching, video technology

Abstract:

Peer teaching at tertiary level has been acknowledged in publications since the 1960s (Goldschmid et al., 1976, as cited in Whitman, 1988). There are benefits to both peer teacher and peer learner. The peer teacher benefits because of the enhanced cognitive application of processing of information that is required in order to teach the materials, as opposed to the processing required for mere test taking (Back & Schul, 1980, as cited in Whitman, 1988). The peer learner receives the advantage of a teacher that teaches at the appropriate level (Schwenk & Whitman, 1984, as cited in Whitman, 1988).

According to Whitman (1988), peer teaching can be applied as near-peer teaching (where the peer teacher is at a more advanced level than the peer learner) or co-peer teaching (where peer teacher and learner are at the same level).

Students enrolled in the course Accounting for Decision-Making (ADM) at the University of Stellenbosch Business School (as part of the MBA programme) are required as part of their group work to prepare a short three-minute video based on a topic related to their learning. The brief is to design the video in such a way that it will be useful to other students or practitioners. We believe that the video format, being visual in nature, affords students the opportunity to translate accounting concepts into creative visual content. By setting a time limit on the submissions, students have to extract the essence of the learning and convey this in a user-friendly mode.

A selection of these video submissions is then used to supplement teaching materials in the course Managerial Accounting (which is a precursor to ADM). These video submissions are therefore utilised as near-peer teaching materials.

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Title: Appreciative Inquiry in the Transformation of Military Science Curriculum and Programmes

Contribution type: Research-based

Author(s): Monama, F

Keywords: Appreciative inquiry, military science, curriculum

Abstract:

This proposed study focuses on programme renewal at Stellenbosch University, specifically in the Faculty of Military Science (FMS), in a context of change. The main focus is to engage the academic staff and students in curriculum and programme transformation through appreciative inquiry (AI). This study draws on two bodies of knowledge, *Academic Leadership* and the *Scholarship of Teaching and Learning*. Conceptual frameworks deriving from these two bodies of knowledge provide the theoretical lenses through which curriculum and programme review and development in FMS will be explored. Unlike a deficit-driven problem-solving approach, this study uses AI as a constructive strength-based tool to engage with faculty staff and support services in a diverse and multi-disciplinary context.

To this end, a more systematic review and analysis will be conducted of the academic processes for curriculum and programmes development in view of the changing defence and security environment. This involves engaging with at least three (3) undergraduate programmes in the FMS, to explore challenges such as enabling and constraining factors underpinning the successful transformation of the curriculum and programmes, and the role of the educational leader in that regard. This will be done through questionnaires and focus group interviews to be able to benefit from nuance-rich narratives in the actual academic setting. The research is conducted through voluntary participation and thus no ethical problems are envisaged, particularly as no personal details will be required. Findings and conclusions will be drawn about the nature of curriculum and programme transformation imperatives and the implications for the academic leader regarding the effective implementation of sustainable programme transformation. Empirical data will be collected during September/October, as the study requires a more progressive approach for its integrity and sustainability.

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Title: Auditors, Caught with Our Pants Down ... We Need a New Suit

Contribution type: Research-based

Author(s): Sexton, N; Rudman, R

Keywords: Auditing, business education, Information Technology

Abstract:

Information Technology (IT) is rapidly affecting all businesses. IT governance frameworks used by management boards have kept pace with IT evolution. The external audit process used to obtain evidence about audit clients and their systems requires auditors to evaluate internal controls and gather evidence. The International Standards on Auditing (ISA) prescribed for this process was last updated in 2013, and has not evolved sufficiently to keep up with developments in IT. Well-resourced auditors develop their own processes or rely on specialists to address this shortcoming. Other audit firms rely on the knowledge gained by staff during their tertiary education. The ISA forms the foundation of learning material and as a result may also not have kept pace with changes in IT. As a result, it is necessary to re-evaluate the curriculum and the training model for auditors.

The objective of this study was twofold, first to identify the applicable guidance available to auditors and audit faculties that deal with the impact of IT on the audit process in the ISA, as well as commonly used auditing textbooks; and second to investigate the appropriateness of these in terms of enabling auditors to identify the IT control risk exposure applicable to audits and clients in an IT-driven environment. The study provides a gap analysis of the key IT concepts in ISA, and the commonly used auditing textbooks and IT concepts contained in modern IT governance frameworks. The study highlights the gaps in the current core content and found that certain control risks are not addressed properly and auditors and audit students require additional guidance should the ISA and auditing textbooks not be updated in good time. The study also identified weaknesses in the competency framework prescribed by the professional body of accountants. Faculty members need to stay abreast of advances in the industry, continue to question the status quo, and respond with curriculum redesign and renewal in anticipation of the changes in professional spheres faced by graduates (Desah Hargroves & Smith, 2009). Other professions for which professional bodies set the curriculum cannot afford to rely on professional bodies to amend competency frameworks before tertiary education react by make their training more relevant – Auditing cannot, either.

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Title: Autonomy Tours: Reflecting on the First Offering of Science in Context

Contribution type: Research-based

Author(s): Rootman-Le Grange, I; Stanford, F

Keywords: Autonomy dimension, disciplinary academic literacies, first-years

Abstract:

The current argument in education research is that disciplinary literacy skills should not be offered as stand-alone or add-on modules, but should follow an embedded approach (Chadha, 2006 & Jacobs, 2010). In response to this argument, the Faculty of Science reflected on their offering of scientific communication skills and basic computer skills to first-year BSc students. The result was the development of a new module, Science in Context 178, which was offered for the first time in 2018 as a compulsory year module to all first-year BSc students.

The original design of the module was rationalised by the use of the autonomy dimension of Legitimation Code Theory, which is a framework that can be used to design our curricula in a way that integrates knowledge from diverse backgrounds, while making the purpose of these diverse sets of knowledge explicit (Maton, 2005 & 2017).

In this presentation, we will reflect on the first iteration of the module as it was implemented in 2018. The data we will use for the reflection is feedback from various levels of participation, namely lecturers, students and project mentors. The data was gathered through electronic surveys and analysed with the same framework that was used to design the module, in order to determine whether the experience of the various participants reflects the autonomy tours that the design of the module aimed to achieve.

Preliminary results indicate that the collaboration between the various lecturers, and the embedded design of the module, has enabled better contextualisation of some aspects of the curriculum, where previously students struggled to see the purpose of that knowledge in their particular contexts.

The development of disciplinary academic skills is a challenge for all higher education disciplines. Thus, the results of this study will in the first instance share a model that can be used to design an embedded approach for development of such skills, regardless of the disciplinary context. Secondly, this will highlight potential challenges of the implementation and design of such a module, which will likely provide uptakers of this approach with valuable information for the design of their own similar modules.

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Title: Blended Learning Meeting the Professional Development Needs of Science Academics?

Contribution type: Research-based

Author(s): Adendorff, H; Rootman-Le Grange, I

Keywords: Professional development, blended learning

Abstract:

The ever-changing student population requires lecturers to constantly reconsider and adjust their teaching methods, considering large classes, learning technologies, student engagement, etc. The Council on Higher Education (CHE), in a recent report, called for “more and better trained academics” adequately to support students from lower socio-economic backgrounds. However, in the same report they state that increasing staff workloads is a reality for most higher education employees (Higher Education Reviewed, 2016). This raises the question: how do we offer professional growth opportunities for overburdened academics?

Electronic media, through the option of well-developed online resources, could offer a possible means of addressing this need by providing just-in-time, easily accessible professional development resources that are tailored to our context. However, drawing on arguments in Legitimation Code Theory (Maton and Moore, 2010) and previous work done at Stellenbosch University (SU) (Leibowitz, 2011), it needs to be noted that becoming a “better trained academic” as the CHE suggests, is not only about gaining the required knowledge, but also about interacting, talking and sharing, and ultimately developing a mutually acceptable set of values and way of thinking. This is best cultivated in regular face-to-face interactions. Our online resource centre was thus deliberately designed as a blended professional development offering in which online workshops are supported by and integrated with existing face-to-face Teaching and Learning Hub initiatives.

In this presentation, we will look at the development and beta testing of the first workshops in our resource centre, using Laurillard’s Conversational Framework (Laurillard, 2007) and Maton’s Legitimation Code Theory (Maton and Moore, 2012). Laurillard’s six ways of learning will be used as organisational framework, with LCT’s Specialisation used as analytical framework.

Although blended learning is not a new concept, there seems to be a paucity of information about how to use this type of learning successfully for the professional development of higher education teaching. This study could provide much-needed, Stellenbosch-based, contextual contributions in this regard. Feedback on the lessons learned during the first phase of the project could also assist in fulfilling the needs of SU staff and support the CHE’s call to better prepare academics for their changing roles.

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Title: Career Guidance: The Development of Written and Digital Animated Resources for Training and Practice

Contribution type: Innovation-based

Author(s): Conradie, K

Keywords: Career guidance, constructivist career psychology, theoretical and existence development intricacies, digital animated training resources

Abstract:

Psychologists are increasingly aware of the delicate overlap in career guidance, personal development and psychotherapy. Underlying the apparent simplicity of initial reporting or referral reasons is an often complicated web of multiple concerns and psychosocial complexities. Over the past few decades, ongoing scientific research in the field of constructivist career psychology has paved the way for a more nuanced and integrated understanding of career guidance, development and decision-making as part of a larger life narrative. Similarly, an aesthetic framework for understanding advocates the inclusion, in addition to the cognitive, of sensory and emotional experimental dimensions to ensure sensitive and empathetic responses. Signs, images and metaphors, as most commonly found in the arts, provide direct access to a variety of experience dimensions with the potential to develop thinking and frameworks for understanding that are more integrated.

Although the existence of interdisciplinary relationships within psychology in general is not new in itself, this educational innovation project focuses on highlighting the intricacies of theoretical approaches in the field of career guidance and development; and on creating greater awareness of the close coherence between career issues and other psychosocial challenges through art. At the heart of this project lies the development of poetically written and digitally animated customer-friendly statements regarding the purpose and nature of career guidance and development. By implication, this is a focused thinking and articulation exercise that came to fruition through proximal mediation over a period of two years. The project was specifically directed at MEd Psych students in the Educational Psychology Department, following the career guidance component of the course. Lastly, this project aims to culminate in a contemporary and indigenous documentary film series with translations of the best customer-friendly theoretical orientations in regional Afrikaans (including Cape and Northern Cape Afrikaans), isiXhosa and English. In this way, an attempt is made from the field of educational psychology to contribute to strengthening and promoting aesthetically oriented, indigenous training and practice-directed resources for lecturers, as well as psychology practitioners.

This presentation will provide an overview of progress with the above teaching project, specifically with reference to certain mediation activities, procedures and initial outputs.

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Title: Closing the Curriculum Loop: An Evaluation of a Renewal Intervention

Contribution type: Research-based

Author(s): Archer, E; Louw, A; Schmutz, A; van Schalkwyk, S; Volschenk, M

Keywords: Curriculum, renewal, evaluation

Abstract:

The first Masters of Philosophy (MPhil) in Health Sciences Education was introduced in 2008. Many lessons were learned during the intervening years such that in 2014/2015 the unit embarked on a curriculum renewal process. The new programme was implemented in 2016 and had subsequently been evaluated, specifically to determine how effectively it was implemented, and whether the intended outcomes were achieved. The process of curriculum renewal is often described in terms of a cycle with evaluation and feedback representing the final step required to close the loop (Kern, 2009).

The revised programme comprises face-to-face contact time supplemented by online interactions, thus a blended learning approach. The approach includes the need to link theory with practice, adopting an evidence-based approach, promoting inter-professional practice, social accountability, and being able to operate in a resource-constrained environment. Informed by transformative learning theory, the programme includes an integrated, longitudinal portfolio creating opportunities for students to reflect on their learning, growth and practice over the two years of the programme. The programme aims to deliver reflective graduates with the ability to be agents of change, who are positive role models and, ultimately, teaching scholars.

This interpretive study made use of two focus group interviews in 2017 with first-year students, a document analysis of the module outcomes and structure, as well as a survey amongst facilitators on the programme to generate data. In 2018, individual telephonic interviews were held with the same cohort (now second years) to again elicit their perceptions of how they experienced the programme. Data were thematically analysed by members of the research team.

The findings suggest that students benefitted from the restructuring of the programme, especially the newly implemented e-portfolio, but felt “out of their comfort zone” – Mezirow’s ‘disorienting dilemma’ – and struggled with programme expectations requiring further amendments. Second-year student responses, however, indicated progress towards becoming scholarly teachers. While we believe that the revised MPhil in Health Professions Education contributed to the development of reflective and scholarly graduates, we recognise that renewal is ongoing, as closing the loop brings us back to the start of the cycle.

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Title: Concepts in Context

Contribution type: Research-based

Author(s): Southey, P

Keywords: Concept, context, transfer, metaphor, schema

Abstract:

This talk aims to critique the notions of “concept”, “context” and “transfer”; presenting both experimental data and theoretical arguments that comprised the core of my PhD research. These notions are fundamental in educational discourse, yet they are often taken for granted. A common implicit metaphor is that a concept sits in a context, like a solid object in a surrounding environment. I will argue that this metaphor is both indispensable and problematic. Student understanding of the concepts of “subtraction”, “vector addition” and “density” will be discussed, including experimental data from my PhD. The theoretical perspectives of “Knowledge in Pieces” and “Cognitive Resources” will be suggested as excellent tools for the explication of the observed sensitivity to context. “Embodied cognition” will also be briefly introduced as a useful interpretative tool for particular data. In sum, I will argue that robust educational research requires a thorough interrogation of the question: “When I speak of a particular concept, what exactly is this ‘thing’ I am referring to?” The widely published series of papers by Kaminski, Sloutsky and Heckler (2006, 2008, 2009) on “How Best to Teach Mathematics” will be cited as an example of how a failure to interrogate this question leads to conceptual confusion.

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Title: Core Knowledge Assessment in Organic Chemistry

Contribution type: Innovation-based

Author(s): Arnott, G

Keywords: Threshold concepts, core knowledge

Abstract:

Threshold concepts have become an important emphasis in teaching and learning across many disciplines, including chemistry (Talanquer, 2015). They are subject-specific concepts whose understanding is critical to grasping the subject being studied. The subdiscipline of organic chemistry is known worldwide to be very challenging, with some questioning whether there is a 'crisis in organic chemistry education' (Chemistry & Engineering News, 2016). One of the biggest challenges to organic chemistry is that it requires a solid grounding on chemical threshold concepts (e.g. acid-base theory) that are often poorly translated/remembered from the general chemistry course. The idea of threshold concepts was appealing and so I planned to emphasise it through direct assessment methods. The term 'threshold' however required changing to be more accessible to students, thus I branded it as 'core knowledge', which I believed would be semantically clearer. In 2017, I introduced the idea to my second-year organic chemistry course, with six mini-tests that covered defined core concepts in organic chemistry. The critical point was that each 10-mark test carried an 8/10 requirement to get predicate. The high pass mark was to stress that these core concepts were A – important, and B – completely accessible to everyone registered on the course.

In this presentation, I will discuss the methods and lessons we learned from our implementation in 2017 to important refinements in 2018, including test item analysis of the core concepts, as successes (and failures) were tracked. This presentation will help other lecturers consider ways to assess threshold concepts in their own courses.

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Title: Corpus Compilation for Creating a Multilingual Cell Phone Dictionary

Contribution type: Innovation-based

Author(s): van der Merwe, M; van der Merwe, E

Keywords: Corpus compilation, multilingual cell phone subject dictionary, wiki

Abstract:

The topic of the presentation is the compilation of a multilingual cell phone dictionary, with specific reference to using corpus compilation in the dictionary process. We explore the creation of a cell phone dictionary in an ever-changing technological environment. Trends and developments in technology provide the opportunity for constant change in lexicography, also as far as the compilation of subject dictionaries is concerned. Bergenholtz and Bothma (2011: 60, 61) describe various e-information resources and conclude that paper products are unable to meet users' needs, while modern information technology is able to meet these needs far better.

The main issue discussed in the presentation is the collection of subject-related terminology for the field of language education. The study involves a detailed analysis of the compilation of MobiLex, a subject dictionary for university students in education. According to the national audit of language technology by Grover, Van Huyssteen and Pretorius (2011), Afrikaans is by far the best-developed language in South Africa in terms of technology. Despite the leadership role of Afrikaans in the field of language technology, it is not a fait accompli that (electronic) sources for corpus compilation for a subject dictionary are readily available. During the presentation, there is a discussion of various sources used in the compilation of a corpus for MobiLex, including less conventional electronic sources, such as the use of a dictionary wiki by target users.

MobiLex is a customised cell phone subject dictionary for undergraduate education students, in accordance with the "user perspective" where the user is the focus in the dictionary process, as described by Wiegand (1998). Bergenholtz, Nielsen and Tarp (2009: 9) argue that the occurrence of electronic dictionaries supports function-based lexicographic theories that focus on dictionaries and dictionary users, with the aim of providing dictionaries that are solely suited to the user's required functions. Therefore, in addition to the translation of subject terminology, the cell phone dictionary also contains explanatory definitions in Afrikaans, English and isiXhosa. This presentation will show how corpus compilation is done specifically for the language education field to accommodate dictionary users and their specific needs, for creating a cell phone dictionary.

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Title: Developing Concepts in Post-qualitative Research

Contribution type: Innovation-based

Author(s): Costandius, E

Keywords: Research concepts, theorising, thought flow

Abstract:

We often refer to theories that are developed in Europe or the US, and it is important to intra-act with them and reconfigure them when thinking about our own context. However, it is also necessary to develop our own indigenous theories in Africa and South Africa so that they can be put in conversation with one another. To develop a theory is not a minor task, but developing concepts could later lead to theories. This paper is based on workshops conducted in 2017 and 2018 that were developed for lecturers at universities in the Western Cape to enhance concept development in research.

Creating concepts is part of a long history, and they migrate and are reappropriated over time. Concepts originate from what Deleuze calls the “thought flow” (Smith, 2014:183), which is the continuous flow of thought in the universe. We are not the sole authors of our thinking, but concepts are extracted from the thought flow and rearranged in new combinations to create new meaning. Some examples of concepts are Deleuze and Guattari’s rhizome, Barad’s diffraction or Spinoza’s monism. Deleuze (1995) argues that the identity of concepts lies in experimentation, “in their intrinsic variability and mutations”. Deleuze promotes a philosophy of difference – a process of continuous variation.

The workshops aimed to develop concepts using an art-making process of forcing new connections. Creativity is often enhanced when unconventional things (these can be a material object, subject, existing concept or theory) are forced together to form new meanings. This process relates to what St. Pierre (2015:92) calls the “physicality of theorising”. It is the creative, material, tangible and embodied process and not the I (cognitively) alone that creates concepts. Tools, materials and persons were actors in the concept/art-making process, but with tools and materials being actors with agency. These linking exercises and zigzag engagements open up new thoughts and images that most participants found highly productive. The workshops resulted in engaging in material, tangible and embodied ways. Developing new concepts open up established ways of seeing and doing in dominant research traditions, which is the essence of post-qualitative research.

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Title: Developing Intercultural Competence: A Case Study Involving Third-Year BCom Students at Stellenbosch University

Contribution type: Research-based

Author(s): van Heukelum, M; Southwood, F

Keywords: Intercultural communicative competence, BCom students

Abstract:

Intercultural communicative competence is a crucial skill for anyone wishing to work in the business sector. Despite this, students of Economic and Business Science are rarely equipped with an understanding of what language, culture and communication entail.

Thus, we investigated if an intervention in the form of an undergraduate module in intercultural communication could develop the intercultural competence of third-year BCom students by preparing them to deal with heterogeneity in the workplace (and elsewhere). Although there is convergence in the general gists of what it means to be interculturally competent (see, e.g., Chen & Starosta, 1996; Bhawuk & Brislin, 1992; Fantini, 2006; Johnson et al., 2006), Deardorff (2004) notes that there is a lack of specificity in this regard. We work with Deardorff's definition of intercultural competence, namely "the ability to communicate effectively and appropriately in intercultural situations based on one's intercultural knowledge, skills and attitudes".

Based on the skills and attributes identified by Deardorff (2004) as being indicative of interculturally competent individuals (such as knowledge of self & others; respect; critical thinking skills; and an awareness of the importance of being interculturally competent), students were assessed prior to the commencement of the module, and again upon completion. Using a multi-method research design, pre- and post-course questionnaires were analysed qualitatively and quantitatively. Specific markers of intercultural competence were identified, and the data coded accordingly. Students' pre- and post-course responses were rated on a three-point Likert scale by the course lecturer based on improvement in a given area. Additionally, a focus group discussion was held at the end of the course.

It was found that skills indicative of intercultural competence can be developed in such a way that students think more critically about (i) cultural and linguistic diversity and (ii) their responsibility as future leaders to communicate optimally in diverse cultural settings. This could lead to graduates who are better prepared for a career in the (international) business sector and who demonstrate the attributes that the University strives to develop in its students, namely having an enquiring mind, and becoming an engaged citizen, a dynamic professional and a well-rounded individual.

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Title: Development of Blended Learning Tutorials and Assessment Mechanisms for the Acquisition of South African Sign Language

Contribution type: Innovation-based

Author(s): Huddleston, K; Baker, A; Njeyiyana, M

Keywords: South African Sign Language, blended learning, L2M2, tutorials, assessment

Abstract:

This paper reports on a project that is the first, to our knowledge, to use blended learning in the teaching of South African Sign Language (SASL) at tertiary level in South Africa. It is also the first to implement the use of online video-based multiple-choice assessment mechanisms for the (self) assessment of SASL acquisition. Signed languages are visual-gestural languages and online content must therefore be multi-modal.

The project involved the development of a 14-week blended learning tutorial programme for the acquisition of SASL as a second language (L2), consisting minimally of one 1-hour contact session per week, plus computer-based self-tuition and assessment. It is well established that acquiring a sign language as an L2 requires considerably more focus on comprehension than for spoken languages (e.g. McKee & McKee 1992; Woll 2012) and the tutorial programme therefore reflects this. Materials were developed following the guidelines of PRO-Sign (<http://www.ecml.at/ECML-Programme/Programme2012-2015/ProSign/tabid/1752/Default.aspx>), an international project currently using the Common European Frame of Reference (CEFR) standards to develop courses for teaching sign languages at tertiary level. As such, the tutorial programme should allow students to reach partway through the A1 level in SASL. We used a series of short video clips produced by DeafTV, available on YouTube, as a starting point for thematically structuring the 14 contact sessions, and models from existing European programmes for the teaching of particular sign languages at A1 level, to structure the tutorial programme. We developed multiple choice comprehension exercises using the video clips and additional video-recorded material, and administered via SUNLearn, as self-tuition material and assessment tools. In this paper, we describe and present the results of using blended learning to teach SASL as an L2 and give a preliminary assessment of the efficacy of this programme.

We hope that by sharing our experience, our project can serve as a stimulus and a model for other educators to create blended learning programmes for teaching SASL as an L2 both at tertiary level and in other contexts, such as to hearing parents of deaf children.

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Title: Do Online Tools Enhance Student Engagement in a Psychology Module?

Contribution type: Research-based

Author(s): Coetzee, B; Kramm, N

Keywords: Lecturer-student engagement, discussion forum, webinar

Abstract:

Background:

Finding ways to improve student interaction and engagement in university classrooms is important and necessary, as it is well documented that involvement and participation during formal contact sessions (e.g. lectures) facilitates critical thinking, and retention of new information. However, students' engagement with lecturers is often hindered by their perceptions of their lecturers, as well as the fear and anxiety associated with participating in large classes (Weaver & Qi, 2005). In this study, and using Rovai's theory for learning in an online environment (Rovai, 2004, 2007), we investigated the acceptability and feasibility of using online tools to facilitate lecturer-student engagement in an undergraduate psychology class.

Methods:

This was a mixed-methods study, and took place in three phases during the first four weeks of the 2018 semester. First, we surveyed students on their perceptions on the availability and approachability of lecturers in the first-year Psychology 114 module. Second, we implemented in-class discussions and weekly webinars as a means to provide additional contact opportunities. Third, we conducted qualitative interviews with a subset (n=6) of the undergraduate group in order to further elicit their perceptions on lecturer-student engagement.

Results:

511 students took part in the pre-survey, and reported that on average lecturers were approachable and friendly. Participation in classroom and webinar sessions was mostly poor and this seemed to be related to familiarity with technology, access to technology during class, and the timing of the webinar sessions. Further, students' willingness to participate in the online activities was largely dependent on prompting by the lecturer, and engagement was seldom self-initiated.

Conclusions:

Online activities such as forums and webinars seem to be an acceptable and feasible means with which to promote lecturer-student engagement. However, given the overall poor rates of participation in these activities some initial induction in the use of such technologies may be useful to students who are exposed to technology for the first time.

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Title: English Studies in South Africa: From Practical Criticism to Blended Learning

Contribution type: Research-based

Author(s): Oppelt, R

Keywords: English Studies, South Africa, history, criticism, practice, cultural studies, blended learning

Abstract:

This paper presents an overview of English Studies in Higher Education in South Africa. From its nineteenth century beginnings to the current use of blended learning platforms, English and its role in the Humanities has undergone numerous changes and challenges to its general curriculum designs. How English Studies evolved through the twentieth century and South Africa's period of nationalist governance is a core focus area. In this time, English was steeped in Practical Criticism until Cultural Studies introduced a socio-political influence that continued to evolve into the country's democratic transition. Questioning the notion of relevance, this study concentrates on how English Studies evolved and now adjusts at a time when academics in Humanities are tasked by the state with increasing vocational thrust for students. Currently, English Studies faces stronger calls for decolonisation of its Western canonical content. This paper looks at different theoretical approaches applied at various departments across South Africa in attempts to gauge what some of the responses have been. While offering a comparative analysis between contemporary English Studies and twentieth century English Studies in South Africa, this paper also discusses the potential role of blended learning in curriculum change and curriculum design. Blended learning platforms could assist the common challenges faced by English Studies throughout its history in South Africa: the improvement of reading and writing skills alongside developing the critical literacy of English. Taken with the decolonising priority, there is room for innovation in English Studies by drawing on its past and assessing its present.

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Title: Enhancing Empathy in Undergraduate Medical Students

Contribution type: Research-based

Author(s): Meyer, I; Archer, E

Keywords: Empathy, teaching and learning, curriculum

Abstract:

Background:

Empathy plays a key role in effective communication between doctors and their patients as it positively impacts patient outcomes. We acknowledge that empathy is about more than an attitude, there are some skills that can be taught to students in order to behave empathically. Following a scoping review of educational interventions to enhance empathy, a variety of interventions, such as a didactic session, standardised patient (SP) case scenarios, listening exercise, a practical perspective-taking exercise, a meditation and self-compassion exercise, as well as a reflection session was incorporated in the third-year Undergraduate medical curriculum, as part of the clinical skills module. Ethical approval was obtained (HREC Reference # N18/01/001).

Research question:

How did the students experience the various teaching interventions that were implemented for the development of empathy?

Methods:

This study followed a qualitative research approach, with an interpretivist paradigm, which was conducted by means of a phenomenological inquiry (Maree, 2007). Data were collected from three focus group discussions with students. The data were deductively analysed and four themes related to the specific educational interventions then emerged.

Findings:

Students found the sessions challenging, but exciting, valued the feedback, the focused attention of small group work and expressed the efficacy of the various interventions. While the students valued the sessions with the simulated patients, new challenges arose, such as, adequate training of SP's, as well as the provision of feedback. Some students verbalised that they were so inspired that they immediately applied their new skills during clinical practice.

Conclusion:

The students confirmed that the various interventions complimented one another well and were relevant and valuable opportunities to enhance empathy. They highlighted the need for reinforcement in future. Therefore, lecturers need to ensure that a variety of teaching and learning strategies are longitudinally incorporated into an undergraduate medical curriculum. While it seems as if these interventions were successful, follow-up research is needed to establish if students apply the skills taught in clinical settings.

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Title: Enhancing Geography Education through Place-Based Approaches in a PGCE Programme

Contribution type: Innovation

Author(s): Ontong, K

Keywords: Place-based education, geography, integration, pedagogy, teacher educators

Abstract:

Despite various iterations of the national geography curriculum over the past two decades, geographical content is still represented in a fragmented way in the current Curriculum Assessment Policy Statement (CAPS). This ‘fragmentation’ not only widens the gap between school geography and academic geography (Ontong & Le Grange, 2016), but also adds more pressure on teacher educators in their quest of adequately preparing student teachers to deal with a fragmented geography curriculum awaiting them in schools. In this paper, I propose place-based approaches (learning based in the local) (Greenwood, 2003, 2013) as potential responses to a fragmented school geography curriculum whilst equally offering teacher educators an innovative avenue for addressing geography in formal teacher education programmes.

The paper I am reporting on is divided into three sections: (1) the ‘fragmented’ school geography curriculum; (2) the implications it has for teacher educators; and (3) the potential of place-based approaches as a response to a fragmented school geography curriculum. I deliberate on examples of how place-based approaches are applied in the Geography Teaching module on a PGCE programme. In conclusion, the paper draws on some practical pedagogical implications for teachers and teacher educators, such as quick response (QR) codes which might be worth exploring as a means to overcome the fragmentation of geographical concepts and the ‘objectification’ of place in the CAPS. The generation and integration of QR codes when teaching any theme (especially place) in Geography will not only enhance ICT in teaching and learning processes, but will also make information on maps, graphs and other themes a reality for students. As a result, geologists, GIS specialists, environmentalists and even practitioners working outside the boundaries of geography such as psychologists and historians will also find place-based approaches useful keeping in mind that place theory encompasses all disciplines and nothing we do is “unplaced” (Casey, 1997).

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Title: Ethics Application Process at the University of Stellenbosch Business School

Contribution type: Innovation-based

Author(s): Hanekom, S

Keywords: Ethics application process

Abstract:

As part of the implementation of the fundamental principles of research integrity, many universities have ethical committees, sometimes called institutional review boards. At Stellenbosch University, the process is delegated to departmental ethical screening committees (DESCs).

Before students and academics can undertake research projects, they need to obtain full ethical clearance. This application and approval process is managed by the DESCs.

An efficient ethical committee is imperative for various reasons. This includes time pressure. Students usually need to start collecting data as soon as possible. A delayed response may result in students not graduating as planned. Feedback to students should therefore be communicated timeously as they usually have fixed timeframes in which to complete their research and submit their final assignments

The application process was not user-friendly and an innovative approach was developed to streamline the process to support students with the short turn-around time.

In 2014, the University of Stellenbosch Business School (USB) used a manual ethics approval process. This was replaced by the InfoEd electronic system. Mid-way through 2017, a new system, Infonetica, was implemented. This significantly improved the process for all stakeholders, namely students, supervisors, reviewers and the DESC coordinator.

According to Schuppli (2007), a number of factors can negatively influence the effectiveness of a research ethics committee. This includes the structure of the research ethics committee. Andrews (2012) argued that a change in the operational structure of the committee could reduce the turn-around time to obtain ethical clearance.

Using Infonetica, tracking applications through the various stages has become much easier to manage. In addition, reviewers' turnaround time has now been reduced significantly. The review of applications was added to the committee members' workload model to ensure that an adequate number of members assist in the review process.

With the Infonetica system, less time is spent assisting students. Having a structure in place allows for improved review times, enhanced understanding of and better compliance with the ethics policy, and more successful applications.

The USB finalised 468 ethics clearance applications in 2017 alone. This shows that having a structured DESC adds to the successful throughput of research at USB.

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Title: Evaluating the Impact of Student Agency on Academic Success of Part-Time Military Students: A Case Study

Contribution type: Research-based

Author(s): van Diemel, R

Keywords: e-Learning, ecosystem, Andragogy, technology, scholarship, synchronise

Abstract:

The majority of part-time Military students seem to view blended learning more as an albatross around the neck than as an asset to their university education in the modern era. What about blended learning is causing this state of affairs? Is it the high failure rate of former and current students registered on this virtual learning platform? Is it the mode and methods of assessment that are inherently different from the assessment of residential students? Or is it perhaps students' fear of high technology and their lack of knowledge in this field?

This paper takes Albert Bandura's Social Learning Theory as a point of departure in an attempt to determine whether student agency can contribute significantly in bringing about a desired outcome (greater academic success). Bandura's theory has often been called a bridge between behaviourist and cognitive learning theories because it encompasses attention, memory, and motivation.

The research question under investigation is: To determine the impact of student agency on the academic success of part-time military students. This paper reports on a qualitative study and reflects the results of an empirical study conducted among eight part-time undergraduate military students of the Faculty of Military Science who have attended a compulsory Induction Week Programme in July 2018. During the week-long Induction Programme they were tasked to keep a dairy of their day-to-day classroom and out-of-class activities. The entries in the dairies were categorised in an effort to determine what activities constituted "student agency" and may impact positively on their studies. The student agency activities will be compared with their October 2018 Semester Test results.

Conclusions will be drawn following the publication of their October Test results.

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Title: Evidence-Based Mindset Interventions to Support the Success of EDP Students

Contribution type: Research-based

Author(s): du Plessis, A; Wagener, W

Keywords: evidence-based mindset interventions, grit, growth mindset, i-FlourishWell4Life, EDP

Abstract:

The academic achievement gap between students with different race, gender and generation profiles is reported as a worldwide phenomenon in scientific journals. At Stellenbosch, there is also a clear achievement gap between the various races, between men and women, and between first- and second- or more-generation students in terms of how many per first-year cohort complete their three-year undergraduate degree programmes in the minimum period (Du Plessis, 2017). These differences even exist between groups with the same grade 12 profiles.

Leading academic researchers from around the world have identified a whole range of psychological factors (so-called non-cognitive factors) that influence academic achievement at university level and that could contribute to the above achievement gap. Example factors include grit, a growth mindset, self-efficacy, wellness, well-being, resilience and emotional intelligence (e.g. Adler, 2016). Most of these are malleable factors and evidence-based interventions exist pro-actively to develop them. Targeted, tailored and timely goal setting (Schipper et al., 2015), sense of belonging (Yeager et al., 2016) and growth mindset (Paunesku, 2013) interventions have, for example, been used successfully elsewhere to close the academic achievement gap. Universities interested in optimising the performance of their students should prioritise interventions like these.

The extended degree programme (EDP) within the Science Faculty is being used as a living laboratory to test and fine-tune some of these interventions locally (since 2018). The interventions are embedded within the formal academic curriculum and profile and participation data are being collected as part of the course. The research team will therefore be able to track the progress of participants and to measure the long-term impact of the interventions on their retention and throughput over the next four years.

A blended platform (i-FlourishWell4Life) was developed to complement and support the traditional class lectures and to administer the mindset interventions online, including the above ones on goal setting, a sense of belonging and growth mindsets. A total number of 4 841 submissions were received from the class of 2018. Each EDP student completed an average of 40.34 profile assessments, activities and exercises (i.e. interventions).

The i-FlourishWell4Life system will be demonstrated during the conference session.

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Title: Evolution of Embedding Spatial Thinking into a Geospatial Technology Course

Contribution type: Research-based

Author(s): Munch, Z

Keywords: Spatial thinking, reflection, explicit instruction

Abstract:

Spatial thinking involves knowledge about concepts of space, using tools of representation for spatial information, and spatial reasoning processes. Generally, there is no formal instruction in spatial thinking; experience is advocated as the best method of learning to solve complex spatial problems. Students of a geospatial technology course are required to master many concepts and become adept at six, selecting correct tools to construct a solution. Literature suggests that if spatial thinking is to be developed, it must be embedded in the classroom and laboratory. In response, an experiment was designed to strengthen spatial thinking skills. Team-based learning focused on spatial problems was implemented to provide practice using critical thinking skills to enhance spatial reasoning processes. However, poor results were achieved in summative assessments, highlighting a weakness in critical spatial thinking skills in students and the need to better understand how and when spatial thinking evolves. This raises the question if there is adequate alignment between instructional materials and teaching strategies and evaluation instruments for thinking spatially.

The aim of this paper is to evaluate the spatiality of instruments, both instructional and evaluative, and compare these with student characteristics. An existing taxonomy that captures three main elements of spatial thinking was used to evaluate the extent to which the instructional materials foster spatial thinking through a series of questions on concepts of space, spatial representation and cognitive processes. Spatial reasoning was assessed on input (defining, recognising, identifying, matching, recalling, and listing), processing (analysis, classification, explanation, and comparison) and output level (generalisation, creation, evaluation, prediction, and hypothesis) of thinking. Student characteristics included gender, age, formative and summative scores and overall student performance.

Data from three cohorts of students were evaluated. Student results for summative assessment did not increase as expected. Further analysis is underway and results are forthcoming. The source of improvement still needs further investigation.

Not only is explicit instruction in spatial thinking recommended, but opportunities to integrate concepts of space, representation and processes of reasoning are also to be offered. In addition, assessments must include questions that require the output level cognitive skill acquired from input and processing levels of thinking.

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Title: Experiential Education: An Emergent 21st Century Pedagogy

Contribution type: Innovation-based

Author(s): Andrews, R

Keywords: Experiential education, pedagogy, experiential learning, curriculum, co-curriculum

Abstract:

In a dynamic era of accelerated change, termed by Schwab (2016) as the fourth industrial revolution, Scott (2015) states that formal education needs to transform in order to provide the critical skills and competencies required to tackle complex global issues. The transmission model or lecture mode of knowledge and skills transference is ineffective in preparing graduates for a rapidly changing world, (Saavedra, 2012). The notion of the classroom as the locus of learning needs to be transformed (Robinson, 2006; Leadbeater, 2008). It is not simply enough to include more technology, learning strategies need to include learning through peers, inter-generational partnerships and community relationships.

Experiential education as pedagogy focuses on intentional design to teach through experience. Experiential learning relates to how student learning occurs irrespective of the learning not being experiential by design. By providing real-world experiences with sustained engagement and collaboration, students are able to construct and organise knowledge, engage in detailed research, inquiry writing and analysis, as well as communicate effectively (Barron 2008). Experiential education and experiential learning theory create opportunities for deeper learning, personalised learning strategies, collaborative and informal learning (Gijssbers, 2012; Redecker, 2013). Learner autonomy becomes central in the process, building the case for experiential education as an effective pedagogy to teach critical skills and competencies.

The success of experiential education as an emerging pedagogy is reflected in a study by Spearit and Ledesma (2014), explaining the renewal process of a law-school curriculum with experiential learning through real-life experience. Experiential education as pedagogy is applied in teaching thematic subjects such as global complexity (Ramano et al., 2017).

In 2016, the Council for Higher Education's Quality Enhancement Project (CHE QEP) alerted SU to the need for increased focus on the formalisation of the SU co-curriculum (Schoonwinkel, 2017). The SU co-curriculum approach is underpinned by experiential learning theory, which defines learning as a process whereby knowledge is created through the transformation of experience (Kolb, 2009). This intentionally embraces experiential education within the curriculum and co-curriculum as an emerging pedagogy. The SU vision 2040 core strategic theme: A Transformative Student Experience, can be fully realised through experiential education pedagogy.

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Title: Exploring Diverse Teacher Recruitment through Narratives of Teacher Professional Identity: a systematic literature review

Contribution type: Research-based

Author(s): Carolissen, R

Keywords: Recruitment, teacher professional identity, narrative, performativity

Abstract:

Research suggests that there is a global underrepresentation of men and predominance of women and low numbers of black students who present for initial teacher education. Numerous reasons ranging from poor salaries, poor career advancement, low status of the teaching profession and alignment of career with traditional female roles are provided as reasons for lack of diversity in choice of professional teacher education. In these contexts, many recruitment strategies that focus on targeting specific identities such as men or black students, fail. Feminist literature (Skelton, 2009) as well as literature on teacher professional identities suggest that recruitment focusing in technicist ways on singular social identities when recruiting men and black students, are unsuccessful for two reasons. Firstly, professional teacher identities are multiple and intersectional and collectively inform and shape teaching professional identities. The second reason is that student teacher choice of profession is seldom informed primarily by race or gender but by multiple dispositions and values. This study will be conducted in two phases. During phase one, a qualitative systematic review was conducted to evaluate all recent qualitative research conducted between June 2013 and June 2018 on this topic. Findings indicated that very little rigorous qualitative research has been done in this area. The study further indicated that specific intrinsic and extrinsic factors as well as students' previous experiences with children and schooling, motivate students to become teachers. These findings have important implications for recruitment of teachers from diverse backgrounds and for teacher education programmes, as a whole. The second phase of the study will be completed next year and involves a narrative inquiry (Connelly & Clandinin, 1999) that aims to explore student teacher meanings of becoming a teacher in a specific South African context.

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Title: Exploring the Optimal Role of Residence Heads in Promoting Student Success: An Institutional Case Study

Contribution type: Research-based

Author(s): Groenewald, J

Keywords: Residence heads, student success levels, blended higher education roles, educational mindset, residence heads skills-set

Abstract:

Background:

Attempts to improve student success in higher education are becoming more holistic and integrated in nature, while also acknowledging that informal out-of-class learning environments can significantly contribute to promoting student success (Kuh et al., 2005; Pascarella & Terenzini, 2005). The research question this study seeks to answer is: What is the optimal role of residence heads in promoting student success at a higher education institution, with SU as an institutional case. The role that Higher Education Institutions (HEIs) play in student success has developed and brought improved insight into those factors that enhance student success. With no blueprint for student success, this study conceptualised a new student success framework.

Methodology:

This study adopted an interpretivist research paradigm. The research design was an explorative revelatory single case of the residential environment at SU. The research method for data gathering and data analysis was Interactive Qualitative Analysis (IQA). Purposive and convenient sampling from four population groups within the residence environment identified participants in focus group discussions and personal interviews.

Findings:

The most significant finding of the study is that the optimal role of the future residence head is a blended role of being a leader and playing an intentional educational role. The main purpose of this blended role is promoting a holistic student success framework. Furthermore, this study makes contributions at the theoretical and practical level as far as the framework for student success is concerned. It also makes theoretical, policy and practical contributions as far as the skills needed of the residence head is concerned.

Discussion:

The conceptualised student success framework would allow higher education institutions the option of assessing their student success approach towards residences and the residence head role. The blendedness of the residence head role is significant as this gives higher education institutions a better understanding of what the residence head role should or could be to promote student success, suggesting practical educational skills sets for residence heads to contribute to achieving student success at the different levels of the framework.

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Title: Feedback Mechanisms in First-Year Physics
Contribution type: Innovation-based
Author(s): Bosman, G; Müller-Nedebock, K
Keywords: Physics, feedback, randomised polling, survey, first-year

Abstract:

The sizes of first-year physics cohorts (around 200 in the module Physics 114) and the necessity for early resolutions of a student's individual (often quite minor) physics issues can lead to markedly different perception of and performance in the subject. The demotivation of students who somehow miss or never master important fundamentals needs to be understood by lecturers and tutors in the module.

We report on a project that aims pro-actively to stem the snowball effect a small mathematical or conceptual difficulty can cause in the modules Physics 114 and Physics 144. We report on approaches used and interventions implemented during Physics 114 and Physics 144 modules in 2018 during both formal lectures and tutorial sessions. In particular, we used randomised polling following contact sessions, as well as a number of surveys of the whole class. Our approach was two-fold, in that we used (1) Tutors, drawn from graduate physics students, attended all lectures in Physics 114, providing their observations of students' attention as well as informal feedback they solicited from students in their vicinity to the lecturer immediately following the lecture; and (2) informal, short questionnaires on content, understanding, and perception were requested of the cohort at intervals following or during tutorials and sometimes in lectures. These were analysed and summarised for the lecturing team within a short time. Identified conceptual misconceptions, or concerns concerning a specific physics topic, were then addressed in the following lecture, usually with explicit mention that this was due to the feedback. We shall include preliminary data on how this influenced student perception on physics and the modules. Generally, we noticed that in 2018, while this approach was being followed, there was significantly less use of additional consultation times and pre-assessment opportunities for discussion.

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Title: Gamification for the Win!... Or Not? Evaluating Student Perceptions

Contribution type: Research-based

Author(s): Barnard, M; Adams, S; du Preez, R

Keywords: Gamification, design-based research, learning technologies, Moodle, student perception

Abstract:

Gamification has grown in popularity as it offers an innovative approach to teaching and learning that speaks to the interests of the current generation of students. In these instances, gamification pedagogy underpins the development of learning activities or technologies geared towards a particular outcome i.e. engagement, participation and motivation (Tulloch, 2014).

In this study, Design Based Research (DBR) guided the design of a gamified Industrial Psychology module. The presentation will describe the development, implementation, evaluation and refinement of a gamified learning management system (LMS) over a two-year period (i.e. two iterations of the same gamified LMS design). DBR advocates a process of iterative cycles of analyses, design, evaluation and revision activities that serve to develop teaching and learning technologies and result in context-specific design principles (Herrington et al., 2007). To this end, gamification pedagogy was integrated in a game, entitled Career Hero, that presented a range of challenges to develop participants' career psychology knowledge and skills.

The student experiences garnered from focus group interviews and questionnaires served as an evaluation of these efforts and highlighted important areas of consideration and improvement. The focus group interviews were guided by a constructivist paradigm, which placed the onus on the group to construct, code and convey meaning of the themes elicited through brainstorming and discussion. Comparisons will be drawn between the themes extracted to (1) identify commonalities and differences across the groups, and (2) evaluate the effect that refinement of the intervention had on the students' experience. These findings will also be examined alongside the observations and experiences of the lecturer and blended learning coordinator involved.

The objective of this presentation is to advocate for the exploration of our current practices in using gamification pedagogy, in a manner that is both theoretically and practically sound. Moreover, credence is given to the role of the student voice when designing learning tools from which they are meant to benefit. In sum, we believe that the use of gamification can be a powerful tool for learning, but only if it is effectively designed and enhances the student's learning experience.

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Title: Graduate Attributes and University Leadership: A Social Realist Perspective

Contribution type: Research-based

Author(s): Andrews, R

Keywords: Graduate attributes, educational leadership, educational change leadership

Abstract:

Stellenbosch University is engaging in the process of embedding the institutional graduate attributes into curriculum courses and programmes through the mechanism of programme renewal and reticulation. Barrie's (2007) findings help explain the phenomena emerging, that academics hold disparate understandings of graduate attributes, the role in the curriculum and its relationality to capability and discipline knowledge. Adding to the confusion is the mixed understandings of the terms attributes and employability. The feedback from industry is that Stellenbosch University graduates are under-prepared, and the institutional name is no longer sufficient to secure a position in a leading organisation.

This research will explore leadership's approach to embedding graduate attributes into the curriculum and the mechanisms that enabled as well as constrained the process. This study seeks to respond to the research question "how does institutional leadership enable or constrain the embedding of graduate attributes at SU" becomes a mechanism to understand change within the higher educational landscape.

The literature review reveals that Globalisation and neoliberal forces together with the fourth industrial revolution continue to align the goals of business, government and education (Hill, 2016). The emerging understanding being that graduate attributes need to be incorporated into the curriculum. The vexing question of how graduate attributes should be embedded in the curriculum and how this should be developed remains largely unanswered.

Social Realism forms the metatheory for this study and utilises Archer's morphogenetic cycle to theoretically 'separate' structure, culture and agency in order to understand the conceptual shifts within a change-management process. By isolating structural and cultural conditions that influence higher educational leadership, it becomes possible to analyse conditions that reproduce or transform a context such as a university or in this instance bringing into the educational programming, graduate attributes within a capability framework (Archer, 2013).

Data for the research is gathered by means of document analysis and semi-structured interviews with key institutional role-players.

The value of this research resides in determining the role of change-leadership in the process of embedding graduate attributes into the curriculum.

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Title: Holistic Student Success Framework – Asking the Right Question at Each Student Success Level

Contribution type: Innovation-based

Author(s): Groenewald, J

Keywords: Inspire, mentor, manage, facilitate, coach

Abstract:

Attempts to improve student success in higher education are becoming more holistic and integrated (Kuh et al., 2005; Pascarella & Terenzini, 2005). I have conceptualised a holistic Student Success Framework (SSF) with five student success integrated levels that could assist residence heads (also academic staff) in promoting student success.

My innovative holistic student success framework poster will showcase the three critical questions to be asked at each of the Student Success Levels (SSL), together with the theoretical understanding and educational skills set expected of the residence head for each SSL, numbered from 0 to 4.

The skill at SSL 0, is to Inspire (SSL0): using motivational speeches and conversations to create welcoming residential environments. Validation theory (Rendón, 1994) assists understanding to increase the students' sense of self-worth and the conviction that they are capable of learning and can succeed.

The skill at SSL 1, is to Mentor (SSL1): creating opportunities for students' social and academic interaction. Interaction theory (Tinto, 1982) assists in understanding so that when students interact on a healthy basis, socially and academically, they integrate optimally into the student community and are more likely to succeed.

The skill at SSL 2, is to Manage (SSL2): deliberately structuring involvement opportunities. The involvement theory (Astin, 1984) and environmental causal theory (Pascarella, 1985) assist understanding that when students are involved in the input to their learning experiences, taking their environment into consideration, the output in terms of learning is higher. Better persistence towards graduation is seen.

The skill at SSL 3, is to Facilitate (SSL3): encouraging collaborative learning and multicultural conversations. The student engagement theory (Kuh, 1995) assists in understanding that engaging students in real problems and providing collaborative learning opportunities will create opportunities for deep learning, resulting in student success.

The skill at SSL 4, is to Coach (SSL4): enabling student leadership through research and innovation. The integrated and holistic learning processes theory (Bronfenbrenner, 1999) assists in the understanding that for holistic development and learning, students must engage and interact with their environment over a period of time to contribute to the attainment of appropriate graduate attributes.

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Title: Identifying At-Risk Students Using Learning Analytics at the Faculty of Military Science

Contribution type: Research-based

Author(s): Pretorius, A

Keywords: Learning analytics, at-risk students, predictive, student success, learning management systems

Abstract:

Learning analytics (LA) aims to enable both student and teacher to actively track, intervene and react to student challenges to optimise student success. The importance of student success, commonly measured as a number of completions in virtual learning environments (VLEs), continues to rise, as does the demand for institutional accountability. Learning analytics could ideally provide much richer data and intelligence to not only re-actively report on success, but also be a means to proactively influence student success (LAK 2011). According to Campbell and Oblinger (2007), LA can help institutions address student success and accountability while better fulfilling their Learning missions.

Data-driven learning organisations are defined by the way they use big-data to improve and monitor learning and teaching (Picciano, 2006:39). This data can be used to measure student progress. Gray et al. (2016) found positive results in using interactions of students with VLEs (marks, usage statistics, etc.) and measurement of non-cognitive factors (motivation, efficacy, etc.) early during the learning experience to improve results. Early identification of at-risk students can lead to early remedial intervention.

The aim of this study is to propose a model to identify at-risk students at the Faculty of Military Science using learning analytics methods and techniques. The study starts with the identification of the key factors in student success and key indicators of student failure. These are used to design and implement interventions on SUNLearn courses that would make it possible to identify at risk students. The research uses the content analysis to identify at risk indicators, design science research methodology to design a model and action research to demonstrate a solution. Various LA tools will be tested to validate the proposed model for LA implementation at the Faculty. Validation through demonstration of LA using legacy data for two courses on SUNLearn is used.

It is expected that this study will result in the design of a model to implement LA at the Faculty, provide the indicators for early identification of at-risk students at the Faculty, and provide recommendations on LA tools that can be used at the FMS.

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Title: In Search of the Sweet Spot: Tutor Training in Science Course

Contribution type: Research-based

Author(s): Adendorff, H; Rootman-Le Grange, I

Keywords: Blended learning, tutor training

Abstract:

The use of short courses for professional development is a common practice in higher education and other professional contexts. With an increased focus on tutor training at Stellenbosch University, and a move towards blended and online short courses, it has become important that we consider our conceptions of effective tutoring and determine whether the design of our training is aligned with our conceptions. Though tutors are usually selected based on their disciplinary prowess, the growing interest in offering faculty-based short courses seems to indicate that effective tutoring requires more than just disciplinary expertise. Starting from the premise that all tutor-training courses are underpinned by theory of effective tutoring, we look at the alignment between the conception of effective tutoring expressed in its design and the outcomes that these courses can, and do, achieve. Using the Science Learning Facilitation suite of short courses as example, we will address two questions:

How is effective tutoring conceptualised in this suite? Is it about the knowledge – disciplinary and/or educational – that the tutor has, or about their attributes and values?

Is this suite offering tutors appropriate opportunities to become effective tutors, per the conception expressed in its design?

Both questions will be addressed with the use of the Specialisation dimension of Legitimation Code Theory (LCT), which focuses on whether different knowledge practices valorise the possession of specialised knowledge or knower attributes or both (Maton, 2012).

Analyses of the Science suite revealed the conception that effective tutoring requires both the possession of specialised (educational) knowledge and specific attributes. Scrutinising the final assignment showed that students generally understood this. However, whilst acquisition of specialised knowledge can be achieved through “training” (Maton, 2014), developing the required attributes requires a slower process of cultivation or immersion. Thus, it raises the question whether short courses, by their nature, can achieve this.

During this presentation, we will share ways in which we are trying to address this in the three-level Science offering. The findings of this study is of value to all who are using short courses to offer tutor training or other forms of professional development.

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Title: Innovation in Health Leadership and Management: Accessing Performing Arts for Real-Role-Play Immersion

Contribution type: Innovation-based

Author(s): Begg, K; Danford, S

Keywords: Role-play, immersion, experiential learning

Abstract:

The modular two-year Postgraduate Diploma in Health Care Management was launched at the Faculty of Medicine and Health Sciences in 2015. The purpose of the programme is to prepare graduates for advanced practice as leaders and managers within the health system. Learning is experiential and action-oriented with an emphasis on professional attributes, as well as gaining new knowledge and skills. Teaching and assessment are therefore practical and applied to the workplace and health care context of the student.

Students are required to integrate all their tangible and intangible learnings and deliver a synopsis thereof in a 10-minute presentation via video submission, which is peer and panel reviewed. To assist the students master communication techniques and presentation skills, a classically trained actor was engaged to share insights and technical knowledge to communicate effectively whatever the medium. Using Real-Role-Play immersive methodologies in the classroom, students practised breath control, vocal impact, verbal and non-verbal communication, for presentation skills. Students rehearsed, tested and reflected on their learning in a safe, contained and supported environment. Through practical experiential training, and learning by doing, students were able to self-correct and self-generate future learning with the goal of achieving mastery and long-term excellence.

The authors will demonstrate some of the immersive role-play techniques used in this innovative methodology during an oral presentation.

This innovation demonstrates the value of an experiential learning opportunity to: 1) aid the development of graduate attributes, such as communicator and professional; 2) address threshold concepts, such as authenticity and assertiveness; and 3) enhance skills of an effective, professional style of communicating, as key learning outcomes.

The authors believe this experience can be extended into other programmes and disciplines. Importantly, this methodology can be used in the teaching and training of lecturers, such as on the Professional Educational Development of Academics (PREDAC) programme.

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Title: Innovation in Health Leadership and Management: Experiential Learning through Real-Time Case Study

Contribution type: Innovation-based

Author(s): Begg, K

Keywords: Real-Time Case Study, rapid appraisal, rapid assessment, experiential learning

Abstract:

The modular two-year Postgraduate Diploma in Health Care Management was launched at the Faculty of Medicine and Health Sciences in 2015. The purpose of the programme is to prepare graduates for advanced practice as leaders and managers within the health system. Learning is experiential and action-oriented with an emphasis on professional attributes, as well as gaining new knowledge and skills. Teaching and assessment are therefore practical and applied to the workplace and health care context of the student.

Part of the experiential learning includes a Real-Time Case Study during their third semester, enabling an interactive, multi-disciplinary, engaging, fast-paced learning experience that integrates conceptual knowledge as well as professional attributes gained to date.

Students participate in a one-day Real-Time Case Study, hosted by an organisation unfamiliar to them. The students are briefed by the programme coordinator, given an overview of the organisation by a senior leader, and then taken on a contextual tour of the organisation working in the community. In small groups, students interview and engage with different parts of the organisation. Together, the class then assimilates, summarises and synthesises the information gleaned. A presentation of their rapid appraisal, incorporating strengths, weaknesses and opportunities for improvement is made to the leadership team. The leaders then assess the students' presentation according to a predefined rubric, and provide feedback to the students as to how useful the findings and recommendations were.

Rapid appraisals/assessments have been used as techniques in practice for quantitative or qualitative evaluation of policies, organisations or processes, but do not appear in the literature to have been used to achieve epistemological access and learning outcomes in a teaching context.

This experience demonstrates the value of an experiential learning opportunity and assessment that are constructively aligned to address threshold concepts as key learning outcomes. Threshold concepts include dealing with complexity and ambiguity, as well as "optimal ignorance" (knowing what does not need to be known), and "proportionate accuracy" (the degree of accuracy required for decision-making) (Chambers, 1981) using judgement and insight. The author believes this experience can be extended into other programmes and disciplines.

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Title: JustLead: A Pilot for Social Justice Leadership Education Online
Contribution type: Innovation-based
Author(s): Odendaal, R
Keywords: Online education, social justice, leadership, distance, co-curricular

Abstract:

July 2018 saw the launch of the Frederick van Zyl Slabbert Leadership Institute's first majority online short course. The course, funded by the Sophia Foundation, stretches a number of boundaries in terms of the type of leadership education that the Institute aspires to provide. These include the geographic and educational demographics of the participants, new partnerships within the University and with other HEIs and NGOs and the inclusion of a Design Thinking approach to developing Community Engagement Activities. The online course includes seven two-week modules, each on a different theme. There is a parallel Community Engagement Proposal module, which stretches the 14 weeks of the course culminating in the major practical assessment of the course. Participants will meet in Stellenbosch in December 2018 at a three-day residence period.

This presentation will focus on the key learnings from the second semester 2018 cohort (the first of six JustLead! Cohorts ending in 2021). My findings are predominantly linked to the challenges around online group work and communication, integrating and evaluating leadership on an online platform, and adapting social justice debates to an online space that encourages critical thinking. It will also discuss some of the advantages that have been achieved through including participants from outside Stellenbosch University – both at other institutions of Higher Education and through NGO partners. The take home message is one that underlines the importance of finding the intersection between creative curriculum design, online tools and simple communication techniques needed for successful participation and learning. It will also provide some examples of how we used this pilot as an opportunity to respond and adapt to participants' challenges as the course unfolded.

This case study holds particular value for colleagues who would like to engage in similar collaborative teaching endeavours across diverse groups and those interested in integrating digital literacy into course outcomes. The primary conclusion recognises that social justice education in South Africa is much more effective when diverse groups of participants are included on an equal basis, and that online platforms do hold significant opportunity to build bridges between geographically separated institutions and participants.

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Title: Knowledge Intersections

Contribution type: Innovation-based

Author(s): Costandius, E

Keywords: Knowledge production, material culture, critically citizenship

Abstract:

During the student uprisings in 2015 and 2016 in South Africa and particularly in Stellenbosch, students demanded decolonisation and transformation of higher education institutions. Some of the critique was aimed at how education is presented: in a Eurocentric manner that marginalises the African voice. A need for critical dialogue on knowledge production became crucially relevant.

The Fund for Innovation and Research into Teaching and Learning (FIRLT) project naturally progressed from an existing National Research Foundation (NRF) project, which is geared towards the documentation of material culture, namely objects, traces and/or events among local communities that can be described as textual (such as poetry, literature, art, craft and design), spatial (architecture and landscape), performative (theatre and dance) and sensory (with interests such as food, games and sport), in historically disadvantaged areas around Stellenbosch. During the collection of material culture around Stellenbosch, discussions started to evolve in the sharing of stories, art techniques and mediums. This was the impetus for the Knowledge Intersections project. 'Knowledge intersections' refers to collaboratively sharing, constructing and influencing existing knowledge aimed at establishing and distributing knowledge that is more representative and collected more democratically.

The FIRLT project therefore engaged in community interaction and the recording of interviews and lectures at various departments at the Faculty of Arts and Social Sciences at Stellenbosch University, which were uploaded on a database that is accessible to communities inside and outside the University. Knowledge of issues such as identity, race and gender stereotyping, visual redress and inequality was discussed between community members and lecturers, which opened up spaces for participants to reformulate arguments based on these interactions. Interviews and group discussions after the interactions indicated that there were some shifts in perceptions and attitudes of participating lecturers, which in certain cases influenced their mode of delivery and curricula. The project focused on practising critically responsible citizenship that serves as a basis for the interactions between community members and lecturers. The complex processes involved in community engagement through actual experiences enabled a rethinking by lecturers and community members of the relationship between Stellenbosch University and communities around Stellenbosch.

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Title: Leadership Models of Conceptualising a Hybrid Mode Academic Offering

Contribution type: Research-based

Author(s): Bosman, JP

Keywords: Educational leadership, hybrid academic offering

Abstract:

The leadership models and approaches around the conceptualisation of blended, online and hybrid modes of academic offering in higher education institutions (HEI) are not well described. Since these new modes of delivery are critically relevant for higher education institutions worldwide (and especially for South African HEI), research-informed strategies on the conceptualisation and implementation of these new directions for teaching and learning in Higher Education are needed. Therefore, the educational leadership models around the conceptualisation of a hybrid mode of delivery and its impact on the support of the new strategy was investigated.

The following overarching research question is answered: What is the leadership model of conceptualising a hybrid mode academic offering at a South African Higher Education Institution? Flowing from this, some implications around how these leadership models inform the bigger institutional and higher education context are put forward. The educational leadership implications for different stakeholders (especially in the academic development environment) in the institution are also laid out.

The qualitative, interpretative, critical-realist informed study was done in the intersection of two theoretical frameworks, namely (a) educational leadership models in higher education (which includes transformational (Quinlan 2014), contextual (Osborn et al., 2002) and distributed (Jones et al., 2012) leadership); and (b) cultural historical activity theory (CHAT) which is used to describe the specific institutional educational leadership around the conceptualisation of a new hybrid offering in terms of expansive systems of activity that work in networked relation to each other (Engeström, 2001).

Semi-structured interviews were transcribed and thematically analysed using interpretative phenomenological analysis with CHAT as analytical lens. The results around emerging leadership models in terms of the activity system of conceptualising a new hybrid academic offering are discussed.

The leadership implications for the institution in general, other future strategic conceptualisations, and specifically how they impact academic development environments will be shared. This potentially includes developing new services, systems, and support for this new way of teaching and learning. The research will show how non-traditional (i.e. not transactional or positional) leadership models can be valuable to HE institutions that want to expand into these new digitally enabled academic spaces.

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Title: Leading Programme Renewal

Contribution type: Research-based

Author(s): Blitz, J; van Schalkwyk, S; van Heerden, B; Smit, L; Volschenk, M

Keywords: Educational leadership, curriculum renewal, engagement

Abstract:

Background:

The Faculty of Medicine and Health Sciences (FMHS) at SU identified the need for a comprehensive and innovative MB,ChB curriculum renewal process in order to ensure that graduates attain the competencies needed to effectively deliver 21st century health care (Frenk, 2010) and be socially responsive and accountable (Woolard, 2012) practitioners who can effect positive change in the complex South African healthcare context. Educational leaders have an important role in both making evident the need for change, as well as in bringing envisaged changes to fruition. The purpose of this research is to understand how the members of academic staff who have been involved in the planning of the new curriculum and its modules (outcomes, learning opportunities and assessment) experienced the leadership of the process.

Question:

In what way has the leadership style used during the programme renewal project facilitated the engagement of leaders and teams of the prospective modules?

Literature review:

The programme renewal has been informed by considerations of graduate attributes (HPCSA, 2014), social accountability, integration to overcome content overload, an approach based on presenting clinical problems and training on a distributed platform (de Villiers, 2017). Leadership of this process strived for collaboration and inclusivity in line with Trowler's (2003) approach to change.

Methods:

This forms one step in a wider process evaluation of the curriculum renewal that we hope will provide a guiding framework for others undertaking such projects. Each leader of a prospective module with members of their module team will be invited to a focus group discussion, which will be facilitated by the project manager. Thematic content analysis of data will be undertaken from an interpretivist stance.

Implications:

We believe that the extent of the innovation that is being envisaged and how this was led, will represent pioneering work in the field in South Africa.

Originality or significance:

This has not been described in African health professions education literature.

Results:

Preliminary findings suggest the importance of knowing and trusting the people who lead change, of keeping the new goal visible and redirecting people back to it when necessary. [\[Back to Index \]](#)

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Title: Lecturer versus Smartphone: Towards a Policy for Teaching Distracted Minds

Contribution type: Research-based

Author(s): Parry, D; le Roux, D; Cornelissen, L

Keywords: BYOD Policy, in-lecture media use, attention strategies, off-task media use

Abstract:

Frequent use of personal computing devices like smartphones and laptops is prevalent in academic settings like lectures, practical classes and personal study sessions (Abramova et al., 2017). When students' media use aligns with academic tasks, it can promote learning outcomes (Kong & Song, 2015). However, evidence suggests that the majority of media use in academic settings is unrelated to academic activities (Zhang & Zhang, 2012). This is referred to as off-task media use (OTMU) and, as is evident in recent studies, it presents as a disruption, distracting both users and those around them from academic tasks (Chen & Yan, 2016).

While some lecturers impose restrictive policies to regulate OTMU among students, others adopt passive stances, allowing them to use devices as they deem appropriate (Berger, 2017). Researchers have called for investigations of policies that seek to empower students to leverage the value of media but curb the disrupting effects of unchecked OTMU.

In this study, we conducted an exploratory mixed-methods assessment of a media-use policy in a semester-long course. The policy divided the lecture theatre into two sections, one for those who wished to use digital devices and one for those who did not. This enabled students to leverage the value of digital media if desired, while affording those who preferred a device-free environment a degree of protection from media-related distractions.

Our findings, based on the analysis of attendance and academic performance data, suggest that those who consistently selected the same section performed better than those who moved between sections. Additionally, through two focus groups, we found that the policy heightened awareness of the possible distractions of OTMU, enabling the identification and maintenance of a strategy for in-lecture attentional allocation and behaviour.

We argue, based on these findings, that OTMU should be understood and investigated within the broader context of the attentional allocation strategies students employ during lectures. Accordingly, we propose that media use policies should be developed to facilitate the acquisition and enactment of attentional strategies, which align with the learning outcomes of a particular course.

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Title: Making the Shift: Reflections on Implementing Undergraduate Flexible Assessment

Contribution type: Innovation-based

Author(s): Du Preez, R; Barnard, M; Young, G; Nieuwoudt, I

Keywords: Flexible assessment, innovation, implementation

Abstract:

The Faculty of Economic and Management Sciences (EMS) has implemented an undergraduate flexible assessment model for the entire faculty in 2018. Given that this faculty is Stellenbosch University's largest in terms of student numbers and has a diverse programme offering, the two-year planning process and the first year of implementation have been complex.

The way curricula (especially assessment) are set up has the potential to promote deep learning (James, 2014). The overall objective of the faculty's new assessment model is to develop a learner-centred approach to flexible assessment. The specific objectives are five-fold, namely to (1) decrease student and staff assessment load; (2) increase student success; (3) enhance students' learning experience; (4) decrease logistical challenges; and (5) develop students' sense of responsibility for learning.

The purpose of this study was to explore lecturers' initial experience and share lessons learned through the first-time implementation of the flexible assessment model. Cook (2001) identifies three features that affect the quality of student learning, namely a student's approach to study and motivation, the role of teaching, and the assessment methods employed. These will serve as a reflective guideline and theoretical framing in this presentation.

All EMS lecturers were invited to complete two online surveys. The first focused on in-class experience (n=45) and the second on the administration of marks and assessment opportunities (n=36). Thematic analyses were used to extract broad themes from the data.

Results point to both positive (e.g. reduced number of assessments; alleviate pressure on lecturers to make value judgements regarding student excuses for missing assessments) and negative outcomes (e.g. impact of the high weights of assessment one; class attendance) stemming from implementation. These outcomes point to the need to further refine the Regulation Guidelines once sufficient evidence is gathered. More importantly, further efforts are required for developing an approach focused on assessment for learning and engaging students in order to change their behaviour towards responsible learning. The value of this paper lies in the sharing of lessons learned, which may guide the uptake of flexible assessment in other faculties and inform adaptations in institutional administrative systems.

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Title: MS Excel-based Tool for Student Management

Contribution type: Innovation-based

Author(s): Arnott, G

Keywords: MS Excel, feedback, student management, tool

Abstract:

Giving timely and appropriate feedback helps encourage students and can create a better rapport between student and lecturer (Poulos & Mahony 2008). More personalised feedback is particularly challenging within a large class setting as Moodle (SUNLearn) has limitations. To this end, I have developed an MS Excel-based Student Management tool for managing large (and small) classes. The tool has a number of features, including a mail-merge function that allows the lecturer to send 'personalised' messages to specific groups of students with a single click. By using the power of MS Excel to group and sort, specific groups of students can be targeted for personalised messages. For example, students achieving marks higher than 70% can be sent a message congratulating them, or students failing a test can be sent a message encouraging them to try again or seek help. Another function highlights students who have significantly improved or worsened across assessments (e.g. between tutorials or weekly tests), so that again, targeted messages can be sent ("Well done on improving more than 20%"; "I was concerned to see that your marks dropped, how can I help?"). The e-mail message itself also contains the student's individual progress marks.

The Student Management tool also automates many other aspects of class administration, including: exporting and importing marks from SUNLearn, creating CSV files for final mark loading, student information lookup, automated and configurable calculations incorporating university rules and a graphing tool to compare results across assessments. All of the functions are neatly packaged into a separate toolbar.

The Student Management tool has been used in a number of courses in the Department of Chemistry and Polymer Science for more than five years, most notably in the two first-year courses (Chem 124 and 144) whose numbers approach 1 000 students each year. Feedback from students has been positive to the personalised messages they receive.

This presentation will focus on an overview of the tool with a demonstration of its ease of use and features. It is envisaged that other course convenors may find these features useful and timesaving when managing their courses.

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Title: Need for Dialogic Feedback: Reflection on Current Practice in Health Professions Education

Contribution type: Innovation-based

Author(s): McNamee, L; Archer, E; Carpenter, H; Peck, C; van Schalkwyk, S;

Keywords: Feedback, health professions, dialogic

Abstract:

Feedback in Health Professions Education (HPE) remains a somewhat problematic issue (Johnson et al, 2016), whether it pertains to the clinical environment or to written coursework. The giving and receiving of feedback has been explored using many different approaches, and related practices have been characterised and theorised. However, the need to strengthen dialogic feedback (Yang & Carless, 2013), while repeatedly expressed, continues to be elusive in practice, and guidance for educators and learners is scarce.

By ‘feedback’ we mean the process of communicating about learners’ work/performance in relation to targets/norms/ standards with the intent to appropriate further learning and improve work/performance. In a climate of encouraging active and self-directed learning, overreliance on predominantly monologic feedback practices is not acceptable (Nicol 2010). Learners should be included in conversations and debate about the feedback they receive from educators to enhance the processes of engagement and appropriation. This paper is a reflection on collaborative feedback practices based on my recent experiences (as first author and presenter), on being the supervisor/co-supervisor for two MPhil candidates whose research assignments were serendipitously about feedback in HPE. One study involved feedback in the clinical environment and the other explored feedback in an MPhil programme by eliciting students’ perceptions. The work of both these students had a considerable influence in promoting my reflection, therefore they, as well as my colleagues jointly involved in supervising them, are included as co-authors. Some of the strategies supervisors currently practice, whether entirely deliberate or more intuitive in nature, to enhance dialogic feedback, are unpacked here.

Feedback practices generally evoke strong emotional responses, therefore the affect of persons, though rarely discussed in the HPE literature, influenced collaborative engagements to a large extent. The supervisory role should involve an appraisal of learners’ affect, students and supervisors should also be able to self-appraise their own affect, and use these evaluations to tailor dialogic feedback accordingly. Without such evaluations and engagement, feedback comments, however well-constructed and well-aligned to recommended best practices, would remain underutilised to improve practice, and could even be detrimental to learners’ motivation and positive sense of self.

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Title: Onto-Epistemological Research as Transformative Teaching and Learning Praxis
Contribution type: Research-based
Author(s): Perold-Bull, K; Costandius, E
Keywords: Transformation, onto-epistemological, research, teaching and learning, higher education

Abstract:

Recent student protests have effected increased awareness of the complexities involved in working towards a transformed, just citizenry through higher education. How to actively move forward while negotiating these complexities at ground level, however, remains challenging, especially at Stellenbosch University.

The research this paper reflects on responded to this challenge by anchoring itself in a philosophy of immanence and relational ontology. From this perspective the ontological, epistemological and methodological aspects of research are inherently entwined. Research must be approached onto-epistemologically. I thus took on the challenge of practising the change I wanted to address through my teaching and learning within the institution, rather than studying it from the outside. I flattened the boundaries between the dominant subject positions I occupied in this context, i.e. designer, researcher and educator. Accordingly, the research aim was articulated as critically exploring design education in the context of transformation at Stellenbosch University through practising design research/education geared at productive change within the institution. The methodological tool of plugging-in (Jackson & Mazzei, 2012) was used to consider emerging processes of subjectification in a specific case of design/research/education in the Visual Communication Design curriculum at the Visual Arts Department. A range of theoretical concepts came to glow (MacLure, 2013): Deleuze's notion of difference in itself (2004), Braidotti's of affirmative ethics (2011; 2013), Rancière's of emancipation (1995, 1999b), Barad's of intra-action (2007), and Foucault's of parrhesia or critical truth-telling (2015). These were used to develop analytical questions that encouraged participants to resist easy extraction of meaning from data while engaging in the research.

Negotiating the research onto-epistemologically allowed embodied experience of how effecting productive transformation in Stellenbosch University necessitated commitment to experimentation with representational praxis in ways that challenged its traditional semiotic function. Such experience contributed to subjects becoming more attuned to recognising moments of transformation within their immediate environments. Consequently, it could be argued that the more such moments become felt through everyday teaching and learning, the more 'real' transformation could become in the broader institutional context. Experimentation with onto-epistemological praxis in other teaching and learning environments at Stellenbosch University hence warrants further research.

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Title: Peer Mentoring and Assessment in Mechanical and Mechatronic Engineering

Contribution type: Innovation-based

Author(s): Muiyser, J; Venter, M

Keywords: Peer mentoring, peer assessment

Abstract:

Peer assessment is a process by which students evaluate the work of their peers, often guided by a rubric or scheme of some kind. The process allows the students to engage critically with the subject content a second time from the perspective of arbiter or mentor. In this way, large student groups can take on an active role in their learning and become an educational resource that can be drawn from, instead of an extended burden.

In the Mechanical and Mechatronic Engineering Department, peer mentoring and assessment has been implemented in three undergraduate courses so far: Machine Design B344 (MDB344), Materials Science A244 (MSA244) and Finite Element Methods 414 (FEM414).

In MDB344 peer mentoring was used as a formative exercise during the concept design phase of a semester-long group design project. The session was structured as an activity where groups of students were allowed to critique the designs of other groups. A framework was provided by the lecturer as a starting point and outline for the discussion with some freedom to deviate as needed. Students documented their feedback and used this to improve their designs.

MSA244 and FEM414 involve a combination of peer assessment and mentoring to provide both formative and summative assessments. Each week students in FEM414 are given an open-ended case study where they are encouraged to solve a problem relating to the methods discussed that week in the lectures. The assessment phase of the case study then involves an interpretive rubric that asks each student to evaluate and comment on the work submitted by their peers. A more closed form project is peer assessed with a more prescriptive rubric in both MSA244 and FEM414.

As a result of the implementation of peer mentoring and assessment in MDB344, MSA244 and FEM414, the grading burden of the lecturers was reduced, student engagement with the course material increased and the students were encouraged to participate with persons outside of their established social groups. It can therefore be concluded that the student body can be used as a powerful resource in their own learning.

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Title: Perceived Enablers and Constraints of Motivation to Conduct Undergraduate Research: What Role does Choice Play?

Contribution type: Research-based

Author(s): Marais, D; van Schalkwyk, S; Willems, B; Barsdorf, N; Kotlowitz, J

Keywords: Undergraduate research, enablers and constraints, health sciences, choice, self-determination theory

Abstract:

Background: Enhancing evidence-based practice and improving locally driven research begins with fostering the research skills of undergraduate students in the medical and health sciences. Research as a core component of undergraduate curricula can be facilitated or constrained by various programmatic and institutional factors, including that of choice. Self-Determination Theory (SDT) provides a framework for understanding the influence of choice on student motivation to engage in research.

Aim: This study aimed to document the enablers and constraints of undergraduate research at Stellenbosch University's Faculty of Medicine and Health Sciences (FMHS) and to explore how the presence or absence of choice influenced students' engagement with research in this context.

Methods: This exploratory descriptive study involved 11 students and 10 staff at the FMHS who were recruited using purposive sampling. Semi-structured interviews were transcribed and thematically analysed. Findings were interpreted using Self-Determination Theory, focusing on how choice at various levels affects motivation and influences research experiences.

Results: Many of the programmatic and institutional enablers and constraints – such as time and supervisory availability – were consistent with those previously identified in the literature, regardless of whether research was compulsory or elective. Choice itself seemed to operate as both an enabler and a constraint, highlighting the complexity of choice as an influence on student motivation. SDT provided insight into how programmatic and institutional factors – and in particular choice – supported or suppressed students' needs for autonomy, competence, and relatedness, thereby influencing their motivation to engage in research.

Conclusion: While programmatic and institutional factors may enable or constrain undergraduate research, individual-level factors such as the influence of choice on students' motivation play a critical role. The implication for curriculum development is that research engagement could be enhanced if levels of choice are structured into the curriculum such that students' needs for autonomy, competence, and relatedness are met.

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Title: Planning for Decolonising the Economics Curriculum: 2017–2020

Contribution type: Innovation-based

Author(s): Nieuwoudt, L; Pegado, B

Keywords: Decolonising the curriculum, transformation

Abstract:

Calls from South African university students to decolonise education have led to universities (like SU) to rethink the curricula of subjects offered in many of its programs (Schoonwinkel, 2018). Globally economics students had also been advocating the renewal of mainstream economics teaching, especially since the 2009 financial crisis and global recession that followed (Inman, 2014). In light of these and other global and local pressures, the Economics Department at SU embarked on a journey of transformation and decolonising, first in informal conversations, but which secondly led to a formal project that is partially funded from the University Capacity Development Grant. This presentation focuses on the Department's planning and actions towards programme renewal and the full implementation of a new, decolonised curriculum by 2020.

The Department's proposal for funding was prepared in consultation with the departmental team concerned with transformation, as well as the team that are responsible for preparing the new first-year curriculum. Many departmental discussions took place in 2017, and in early 2018 the proposal was accepted, the grant received, and the first pilot of the proposed new curriculum launched. Many other universities (and departments) globally and nationally are currently undertaking similar actions, some of their actions and plans have already been recorded in recent literature. We also incorporated some of the ideas Bitzer & Costandius (2018) refer to in their recent paper on continuous programme renewal and critical citizenship.

This presentation aims to provide a clear road map to colleagues from other departments that want or need to embark on a similar journey of transformation and especially in as far as decolonising their curricula. We show that this process, often seen as a daunting task, is possible through inclusive departmental conversations, careful planning and capable leadership.

The Department is confident, given the work done so far and the planning for the next two years in place, that the decolonised Economics curriculum will successfully be implemented in 2020.

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Title: Practical Learning for Ethical Agency in Teaching

Contribution type: Innovation-based

Author(s): Robinson, M

Keywords: Professional learning, teacher education, ethical agency

Abstract:

This presentation reflects on the module Practical Learning, within the Post Graduate Certificate in Education. The aim of this module is to advance student teacher professional learning. Students are exposed to teaching and learning methods and school placements to ensure their own growth, theorise practice, and become confident and competent teachers. Students are encouraged to recognise the complexity of teaching and to debate key concepts and practices of teaching, thus advancing the notion of a reflective practitioner.

In a country like South Africa, with its high levels of racial, educational and social inequality, there is an imperative to design teacher education within a framework of social justice. The module is thus underpinned by the notion of “educational virtuosity” (Biesta, 2015). Biesta argues that learning to be a teacher should go beyond a qualification or socialisation into the community of teachers, to include consideration of what is educationally desirable. The module thus works within the principles of fostering teacher agency within an understanding of social forces.

This principle is encapsulated in the following curriculum features:

- two observation periods with assignments based on Productive Pedagogies, with its four pillars of intellectual quality, a supportive classroom environment, recognition of difference, and connectedness;
- encouragement of students to seek school placements in a variety of school contexts; observation tasks that encourage students to reflect on the relationship between schools and society;
- invitations to teachers and educational organisations to share stories of resilience in difficult school contexts.

This paper outlines two aspects of student teachers’ observation, namely the impact of socioeconomic factors on teaching and learning and the contribution that schools can make to building a democratic society. In-school socioeconomic factors identified by students included access to facilities and opportunities, while out-of-school conditions included transport and availability of internet. Various internal school policies and practices were noted as part of building a democratic society, for example, classroom rules, learner councils, and the promotion of values like respect. Drawing on these observations, the paper considers whether these student reflections can help embed practical tools for classroom practice within the deeper purposes of situated judgement and ethical agency.

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Title: Project-Based Learning to Help Narrow the Gap through Semantic Waves

Contribution type: Research-based

Author(s): Mouton, M

Keywords: Transition pedagogy, articulation gap, project-based learning, Legitimation Code Theory, semantics

Abstract:

First-year curricula and their delivery should embody a transition pedagogy where students are supported on their journey from their previous learning experiences to the style of learning at university (Kift 2009). A significant obstacle for many students on this journey is the so-called articulation gap or discontinuity between secondary and tertiary educational levels (Shay et al., 2016). So, how can innovative first-year curricula be structured to embody an effective transition pedagogy and help narrow this gap? Recent studies revealed substantial differences between school and first-year biology curricula in South Africa, and also explored possible ways to overcome this divide (Kelly-Laubscher and Luckett, 2016; Mouton and Archer, 2018). They drew on Legitimation Code Theory's (LCT) Semantics dimension to analyse and shape both curriculum and pedagogy. LCT Semantics exposes the underlying principles of practice as semantic codes by evaluating the context dependence (semantic gravity), and complexity of meaning (semantic density) (Maton, 2014). Maton (2013) proceeded to show that when curricula and pedagogy display iterative cycles of concrete to abstract, and simpler to complex meaning through so-called semantic waves, students are more probable to make sense of complex abstract content and achieve cumulative learning.

My current study also draws on LCT Semantics and considers the inclusion of project-based learning (PBL) to facilitate semantic waves in a first-year biology curriculum and thereby assist in narrowing the articulation gap. One project aimed to expand the contextual biology knowledge range of students, from concrete to more abstract meaning, and was evaluated by analysing student presentations. A second project aspired to develop scientific language skills of first-year biology students and their ability to work within stronger complexity of meaning, which was evaluated by analysing selected summative assessments. Results indicated that purposefully designed projects have the capacity to steer students through iterative semantic waves of concrete to abstract meaning, and simpler to complex meaning. This study therefore suggests that PBL can expose students to powerful theoretical concept knowledge, while also affording access to the inferred framework of norms, values, and practices needed to make sense of abstract complex disciplinary content, thereby contributing to narrowing the articulation gap.

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Title: Reflection on Knowledge and Knowers in Dynamic Systems

Contribution type: Research-based

Author(s): Louw, T; Auret, L; Basson, B; Wolff, K

Keywords: Reflection, knowers, knowledge, semantic gravity

Abstract:

The modelling and control of dynamic systems is an exciting and challenging field of knowledge that is taught in undergraduate chemical engineering modules. Dynamic (i.e. time-varying) behaviour is difficult to imagine, necessitating playgrounds (in this case, simulation environments) for practice (Auret & Wolff, 2017). The movement from abstract concepts to concrete examples demonstrates what can be called a wide semantic gravity range (Maton, 2014): from generic conservation principles, through mathematical and algorithm expressions, to physical devices (Auret & Wolff, 2017) – creating challenges for students in terms of context-awareness and appropriate assumption-making. The generation of a mathematical model is a creative and technical process, where previous work (Louw & Auret, 2015) has indicated the importance of stream-of-consciousness-like guidance to make explicit the considerations and decisions of a successful model-maker.

The research question is: “How does a teacher’s knowledge and relationship with knowledge (as well as the impact of this on teaching) develop through apprentice to expert levels of experience?”

Using the Legitimation Code Theory concept of 'social relations' (Maton, 2014), this work will reflect on knowers (teachers) and their relationship with dynamic systems knowledge. The study differentiates between knowers with different experience levels, or different 'gazes': an expert knower with in-depth domain-knowledge at doctoral level (lecturer); an experienced knower with fair domain-knowledge at masters-application level (lecturer); a trained, novice knower in the role of student assistant, as well as in-training knowers in the form of students. Apart from domain-knowledge (i.e. dynamic systems), the experience of the knower in the teaching and learning context is considered.

Drawing on reflective logs from lecturers, a student assistant and a student, as well as surveys and a focus group discussion, data are analysed to look for evidence of code shifting: the development of “appropriate” ways of knowing, and “belonging” to the knower space.

The implication and originality can be expressed as the potential identification of opportunities for the teaching of dynamic systems: how to enable deeper learning, as well as how to initiate students into the belonging in the knower space – and with it a sense of joy, accomplishment and professionalism.

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Title: Reflective Learning in the Substance Use Field: A Longitudinal Study

Contribution type: Research-based

Author(s): Slabbert, Ilze

Keywords: Reflection, longitudinal study, substance use, themes

Abstract:

Background:

In the field of substance misuse, it is essential for students to take a close look at their own lives to experience to a degree how difficult it is to abstain from something for a period of time, as their potential substance use clients might need to abstain from alcohol or other drugs for a lifetime (Fisher, 2013:7). Final-year students in social work do a reflective exercise as part of their training in the substance misuse module where they have to abstain from anything in their lives they want to change for three weeks. They keep a journal of this process to describe their experiences. The purpose of this study was to explore how fourth-year social work students gained insight into the field of substance misuse by completing a reflective exercise.

Research question?

How can a reflective learning exercise enhance fourth-year social work students' insight in the field of substance misuse?

Methods:

A longitudinal, qualitative study was proposed with Social Work students in Stellenbosch over a period of four years. The sample was drawn from the population of fourth-year social work students at Stellenbosch University. Data were obtained from the reflective exercise the students completed. The data were categorised into six themes, namely social media and junk food, stimulants, opioids, depressants, toxic relationships and harmful habits. Data verification was also done (Maxwell, 2009:36).

Implications:

Reflection regarding the challenges of changing a harmful habit played a significant part in the students' learning experiences. Students used their own personal journey to reflect on the challenges of substance misuse (White, Fook & Gardner, 2006:3).

Results:

Feedback from the students indicated that they gained more insight into the challenges of abstaining from substances for a lifetime. Some students also struggled with some addictive forming habits, and indicated that they needed to change some patterns in their lives or receive professional help (Dodge, Krantz & Kenny, 2010:31).

Conclusion:

Reflective learning is a useful way to enhance students' learning experience and is able to develop insight into possible harmful patterns, which could lead to addiction.

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Title: Re-imagining the Practical Offering for Science Students – How to become a Scientist

Contribution type: Innovation

Author(s): Jacobs, Karin

Keywords: Science, undergraduate research experience, skills, graduate attributes

Abstract:

In the Science environment, it is critically important that students are mentored into becoming scientists, and the practical offerings are ideal environments to teach and develop necessary skills. Heavy teaching loads and pressure to focus on research have contributed to the dilution of our practical offering. This is particularly important, as it is critical that undergraduate teaching should ideally be done by strong researchers to apprentice the next generation of scientists. The Boyer Commission (1987) recommended that “research-based learning” in contrast to a “cook-book” style approach should become standard practice at universities. Uptake of this idea has been rapidly developed as Undergraduate Research Experience (URE) programmes in the US, but insufficient funding and large class sizes hampered implementation. From the literature it is evident that learning and skills develop when students participate in a community of practice (CoP). In Science, Technology, Engineering and Mathematics (STEM) environments, the CoP is the scientific community. Studies have shown that through peripheral participation in UREs, students becomes part of this CoP, through acquiring skills, but also through socialisation into the CoP. One can then argue that if the practical component of a Science course were part of the socialisation of undergraduate students into a discipline, then one would need to consider how well it is designed to provide in all the requirements. While the research internship was shown to be effective in providing authentic learning and guiding students to become scientists, this is not always feasible, particularly in large classes. Training students as apprentices requires significant training time, and can become costly for the host laboratory in terms of time and consumables.

Against this backdrop, this study aims to assess current practices in the science environment using situational analysis of the data through a constructivist approach. Modules in the BSc (Molecular Biology) stream will be used to identify elements of a successful URE already present in our practical offering, including the authentic research experiences, as well as opportunities for deeper learning and critical thinking by analysing course outcomes and interviews with lecturers and students. The results will be used to guide recommendations for designing effective practical modules in the Science environment.

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Title: Revisiting the Role of Language Ability in Academic Performance: The Case of Stellenbosch University

Contribution type: Research-based

Author(s): Sebolai, K

Keywords: Articulation gap, language ability, academic performance, language assessment, completion rates

Abstract:

More than two decades into the new political dispensation, South African universities still have to grapple with low levels of student academic performance and the consequent high dropout and low completion rates. The country's graduation rates have, in the words of the Council on Higher Education (CHE) (2013:15), been "found to have major shortcomings in terms of overall numbers, equity and the proportion of the student body that succeeds". This has mainly been attributed to the mismatch that seems to exist between the knowledge learners leave high school with and the kind that academic education requires them to possess for success. This gap, known as the "articulation gap", has been ascribed not only to the emotional and academic under-preparedness of the students entering higher education, but has also been seen as an outcome of a complex combination of the political and socio-economic factors that are unique to the country. Among the academic reasons often cited for this "articulation gap" are the levels of language ability that high school leavers bring to higher education (see CHE 2013; Coetzee & Coetzee-Van Rooy, 2015; Dyk 2015). While this is taken for granted by language teaching professionals, the tendency is for non-language teaching academics and students enrolled in disciplines that are less associated with language processing to be sceptical of the role of language interventions in academic performance. Not only has this been the case in South African higher education in general, it is also a challenge faced by language centres in other parts of the world (see Carkin, 1997; Stoller, 2012).

The aim of this paper is to demonstrate through statistical correlations that predetermined levels of student performance on school-leaving English examinations and a standardised test of academic literacy relate positively with how first-year students perform at Stellenbosch University. This has wider implications for student throughput rates at the university.

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Title: Simulation Software Enhances Student Learning of Applied Economic Geology

Contribution type: Innovation-based

Author(s): Von der Heyden, B; George, J

Keywords: Simulation, large datasets, software, practice, active learning

Abstract:

The so-called fourth industrial revolution is expected to strongly impact and even transform the required skillsets and cognitive abilities of future professionals (Peters [2017], and references therein). In the realm of the earth sciences, one manifestation of this is that graduates will need to become increasingly adept at managing and interpreting large datasets (King, 2008). This contribution explores the use of a newly developed geological drilling software as a tool to develop student interaction with large spatially constrained datasets. The simulation software has been designed in-house by a SU computer science student under supervision of the Economic Geology lecturer and with inputs from a local minerals industry consultancy firm. The simulation necessarily requires that students understand and practice the roles and responsibilities of a professional geologist searching for subsurface gold mineralisation. Aside from applying their technical/geological skillsets, the students must attain mastery in a range of inter-disciplinary skills to successfully complete the learning intervention. These include sound financial management principles in managing the drilling budget, decision-making skills, the ability to work as part of an exploration team, and the legal implications associated with reporting exploration results to the public domain. Learning of each facet of this intervention is underpinned by Laurillard's Conversational Framework in which students learn primarily through practice, but also through acquisition, collaboration and from obtaining meaningful feedback throughout the semester (Laurillard, 2002).

Student feedback from the pilot run of this intervention indicates that all of the students (N=32) agree or strongly agree that the intervention was an effective way to learn both about managing and processing large datasets, and about the process of geological exploration. Simulation software designed to achieve a specified and relevant end goal is thus promoted as an effective and practice-based active learning tool. It is anticipated that such an approach is transferable to other science and non-science disciplines, and should better prepare SU graduates for the demands of the employment sector, particularly as we move towards the fourth industrial revolution.

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Title: Stellenbosch University Graduate Destination Survey 2017/2018

Contribution type: Research-based

Author(s): Timmey, M; du Plessis, A; Kroon, C

Keywords: Graduate Destination Survey, graduate employment, youth unemployment

Abstract:

Over the past decade, South Africa has witnessed an increase in youth unemployment (Kraak, 2015). Universities nationally are rightly concerned about the employability of their graduates.

A major goal of the Unit for Graduated Career Services (UGCS) is to better prepare students for the world of work. Good information about, among others, our graduates' activities after graduation, their employment and unemployment patterns and the process of finding a job after graduating dynamically support the Unit in tailoring its services. Graduate Destination Surveys are an important tool in higher education as their primary results indicate the extent of graduate unemployment per region and/or institution (Kraak, 2015). In 2017, a definite gap in Stellenbosch University's knowledge about her graduates and their future plans was identified. The last institutional SU graduate destination survey was conducted in 2003. Since then, and until now, the University had to rely on infrequent investigations to monitor and learn about the future plans of her graduates, e.g. the Pathways from University to Work Report (CHEC, 2013). Consequently, a new Graduate Destination Survey Questionnaire was designed and administered via an electronic survey. The responses were analysed by means of a newly developed website tool that was built by the Centre for Business Intelligence.

SU will conduct this research annually. This will enable more up to date reporting on current employment trends to management (Ball, Logan, Howie, Montgomery, Grey, Kempster, Abbot, Guy & Kelly, 2017). It will also empower the UGCS to fine-tune its services to the needs of senior students, and it will allow other role players, such as the Alumni Relations Office, to utilise the findings to inform strategic initiatives.

This presentation will focus on the results of the December 2017 and March 2018 graduation ceremonies.

Some of the interesting insights and recommendations that will be shared, include: (1) The UGCS should focus more on networking opportunities, as this was the main source of employment for our 2017 graduates; (2) valuable insights about UGCS services should impact graduates' future initiatives; and (3) the survey should be expanded to include postgraduates and students from the Tygerberg Campus.

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Title: Student perspectives: Curriculum Transformation in a South African Politics Module

Contribution type: Innovation-based

Author(s): Jonker, A

Keywords: Racism, curriculum transformation, innovative teaching, social justice in teaching and learning

Abstract:

I report on curriculum renewal in a multilingual module introduction to contemporary South African politics that was taught in 2017. Curriculum transformation was not a top-down process, but was informed by students' multicultural and socio-economic realities. These pertinent cultural, linguistic and socio-economic issues that affect students' everyday realities enriched the Political Science curriculum on contemporary South African politics, which focuses more on theoretical issues.

Since contemporary South African politics is still influenced by the political dispensation of the past, the curriculum set out with students sharing and evaluating their communities' attitudes to the Truth and Reconciliation Commission (TRC) and their ideas about the two types of transitional justice: restorative and retributive justice. Students then had to identify their communities' most pertinent socio-economic issues in tutorial discussions and essays, after which they had to evaluate whether these socio-economic issues were still consequences of the past.

During lectures and tutorials, technical terms were available in English, Afrikaans and isiXhosa. A clear distinction was drawn between procedural and substantive democracy. Videos were subsequently made by Stellenbosch University Telematic Services of those students who felt confident enough to talk about their communities' issues. These included racism, Colourism, mother-tongue education, crime, poverty and education. Students were encouraged to make a link between their communities' issues and the different theoretical notions of democracy. Their authentic video recordings eventually formed an integral part of the curriculum in 2017 and will be part of the curriculum in future.

In their annual visit to Parliament, students had the confidence to apply the knowledge that they had learned in the module. They engaged with representatives of the major political parties about their oversight role, corruption, accountability, and what they regard as threats to democracy.

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Title: Student Preparedness and Learning Behaviour within a Student-Centred Learning Environment

Contribution type: Research-based

Author(s): Rhode, C

Keywords: Genetics, student performance, active learning, student behaviour, prerequisites

Abstract:

Genetics is the foundation of modern biology, however it has been described as a particularly difficult subject by many students, due to its abstract nature, conceptual complexity and mathematical basis (Yazon et al., 2002; Knippels et al., 2005). At the senior level, it is assumed that students have basic knowledge and comprehension, and the focus is thus shifted to the ability to apply this understanding. A student-centred learning approach is advocated for evoking higher cognitive learning (Freeman et al., 2014; Smith & Wood, 2016). Kirschner et al. (2006) have, however, argued that constructivist paradigms might be ineffective when students have not yet attained sufficient prior knowledge to provide self-guidance. Increasing class sizes with pressure to improve pass rates in entry-level modules are inadvertently leading lecturers to increasingly rely on passive teaching practices (Cuseo, 2007). Subsequently, students entering senior phases are cognitively immature and not prepared for meaningful deep learning that is aligned with teaching outcomes. Therefore, we ask: “What is the level of student quality, preparedness and subsequent engagement with learning opportunities, within the active learning environment?”

For Genetics 214, major trends in student performance, over the last 10 years, were evaluated and the correlations between student performances in first-year prerequisite modules were assessed using regression analyses. Furthermore, for the 2018 class, student engagement with active learning was evaluated through a number of compulsory and non-compulsory assessments in a “guided” active learning and teaching design, and compared to student performance in study units where the new teaching design was not followed. Students were found to be unable to transfer skills and knowledge from previously studied modules, they relied heavily on rote learning and demonstrated behaviour associated with cognitive immaturity. Students tended not to engage effectively with provided learning opportunities and were more interested in maximising marks at the cost of deep learning. Consequently, students struggled to apply knowledge during assessments where comprehension and reasoning are required. The study shows the adverse impact of massification of higher education and overemphasis on pass rates on learning outcomes.

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Title: Successful Design and Implementation of a Blended Online MSc Module

Contribution type: Innovation-based

Author(s): Krügel, M

Keywords: Blended, conversational framework, Laurillard, Learning Designer, online

Abstract:

Increasing numbers of institutions of higher education are adopting blended learning (Porter et al., 2016). The multidisciplinary MSc in Food and Nutrition Security is a new online-based master's programme offered for the first time in 2017 at Stellenbosch University, with nine registered students from all over Africa. No explicit guidance was given as to the approach lecturers had to follow and, therefore, lecturers could use their own style and approach to deliver the online modules.

The two-week module, Functional Foods, was developed as a fully technology-based online blended module, based on the Conversational Framework learning theory developed by Diana Laurillard (Laurillard, 2012). This framework enabled integration of learning technologies to provide a balanced approach to the use of information and communications technology in the curriculum. The online tool, Learning Designer, was used to incorporate the different ways of learning, namely acquisition, inquiry, practice, production, discussion and collaboration (Bower et al., 2011). This tool played a vital role in the pedagogical approach, the type of thinking engaged, and assisted with the optimal allocation of learner and teacher time, enabling constructive alignment. The Moodle-based SUNLearn e-learning management system was used to integrate iSpring as shareable content object reference model packages, shared Google documents, crossword puzzles, glossaries and group discussions. All these activities supported either the production of knowledge, self-directed or active learning. Telematic sessions were used as the face-to-face connection between the lecturer and the students. These sessions were afterwards uploaded as videos for students that could not connect to the live sessions. A final written assignment and video was given as the last task to complete. The feedback from students, whose ages ranged from 20 to 45, was overwhelmingly positive and encouraging. In comparison to other modules, a 100% increase in interaction with the instructor and 57.1% increase in the interaction amongst the students were experienced. Through careful planning, it was possible to deliver an online postgraduate Food Science-related module in a blended manner that facilitated the different ways of learning to bring students together from various African countries. An online experience to remember – lifelong learning instead of repository learning.

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Title: Teacher Professional Development: Mentoring during Work-Integrated Learning

Contribution type: Research-based

Author(s): Botha, ML

Keywords: Teacher professional development, mentoring, work-integrated learning, school-university partnerships

Abstract:

Teacher professional development, as research area, includes the focus area mentorship. Mentor training contributes extensively to the professional development of teachers, contributing to quality initial teacher education and training (Robinson, 2001). Experienced mentor teachers play an important role during work-integrated learning (WIL) periods, thus forming one of the fundamental aspects of any school-university partnership during this time.

The current research is motivated by findings from an initial research project initiated/requested by the Department of Higher Education (DHET) into Professional Practice Schools (PPS) (Robinson, 2015). Some findings include the lack of role clarification and communication tensions that led to questioning the competence and added responsibilities of mentor teachers (Botha & Beets, 2015). This pilot project was set in three schools in the Worcester district where student teachers were placed with mentor teachers during their WIL period. The main question driving this pilot project was: In what ways do mentor training and mentorship contribute to professional teacher development and quality of initial teacher education and training during WIL? Subquestions include: How do teacher educators and mentor teachers see their collaborative roles in teacher education and training, and how effective is the role of the mentor teacher within a school-university partnership during WIL? Ethical considerations were addressed and permission was granted by the DESC/REC to conduct this research. The adoption of an interpretivist research design, and gathering of qualitative data by means of observations, reflections and semi-structured interviews, culminated in insightful findings, answering the research questions successfully. Valuable recommendations were deduced from thematic analysis of the data.

It can be concluded that successful mentor training and mentorship contribute to the professional development of in-service teachers, as well as to the quality of initial teacher education. The successful collaboration between mentor teachers and student teachers during WIL strengthens school-university partnerships, informing the establishment of PPS as reported by Robinson (2015). In conclusion, partnerships is a way “to reform teacher education and associated communities (schools and universities) by making teacher education context-based and relevant to the changing needs of the present world ... improving practices at schools and universities” (Islam, 2011:52).

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Title: Testing L2M2 Acquisition of South African Sign Language: Developing a Sentence Repetition Task

Contribution type: Research-based

Author(s): Palmer, A; Baker, A; Huddleston, K

Keywords: L2M2 learner, South African Sign Language, sentence Repetition task, non-manual markers

Abstract:

There is considerable discussion in the literature about elicited imitation or sentence repetition tasks (SRT) in assessing linguistic ability. Recent work has shown that such tasks are in fact useful diagnostic and research instruments (Vinter 2002). SRTs are sensitive to Specific Language Impairment (SLI) and can distinguish children with SLI from normally developing monolingual speakers, bilingual speakers and second language (L2) speakers (Marinis & Armon-Lotem, 2015). SRTs have also been found to discriminate between native speakers and late learners of a language. As such they have the potential to be used in the assessment of language proficiency in L2 (second modality [M2]) learners, and aid in L2 education. SRTs are also fast, uncomplicated and inexpensive, and they can be scored in different ways, depending on what the researcher/educator wants to examine, which makes them desirable in comparison with other tests (Chiat et al., 2015). For sign languages, there are relatively few assessment instruments (Haug, 2008). SRTs have been developed for British Sign Language (Marshall et al., 2015) and American Sign Language (Hauser et al., 2006), but these instruments have been used primarily with children.

This paper reports on the development of an SRT for South African Sign Language (SASL), constructed using Marinis and Amon-Lotem's (2015) principles. The goal was to examine the relative difficulty of specific structures. This instrument was used to test hearing adult learners (n=49). It was predicted that L2M2 learners would have more difficulty with structures involving non-manual markers such as questions and negation (McIntire & Snitzer Reilly, 1988). In this paper, we report on the results from the testing after 4 weeks of exposure to SASL and again after 12 weeks, so that the results reflect learning after limited exposure. Over the entire test there was considerable variation across the group on the total scores for the test. The structures involving non-manual markers such as simple interrogative sentences were reproduced significantly less accurately than simple sentences not involving non-manual markers. The results suggest a complexity order that also needs to be tested in young SASL L1 children.

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Title: The BeWell Mentoring Experience as a Vehicle for Personal Wellness Development

Contribution type: Research-based

Author(s): Dunn-Coetzee, M; Du Plessis, A; Kroon, C; Engelbrecht, R; Petersen, J

Keywords: Mentoring, personal wellness development

Abstract:

Stellenbosch University changed its mentoring approach in 2013, with the focus shifting from a remedial approach to a developmental approach. Hettler's wellness model was used as the framework to drive this change. The main aim was now to use the programme as a vehicle to support the holistic development of participating students, both mentors and mentees. This study focused only on mentors and their growth.

The online tracking system that supports this mentoring programme (since 2013) is called BeWell. Amongst other things, it requires all mentors to complete three online reflections per year. The goal thereof is to evaluate the impact of the mentoring experience on their personal wellness development.

This study focused specifically on a sample (100) of these reflections and the following two reflection questions:

- How did you grow as a mentor and what was your experience?
- Do you think that you will be able to use the skills that you have learned in your term as mentor in the workplace one day as a professional, and how?

These questions can be linked directly to developmental wellness factors (du Plessis, 2015) and were therefore the main research questions of the analysis. A qualitative analysis was performed using the Dedoose (www.dedoose.com) package to establish within which wellness dimensions growth took place, and to what extent evidence exists to support possible claims.

An interdisciplinary panel decided on the theoretical framework for the coding of the reflections. Hettler's wellness dimensions (physical, emotional, social, spiritual, occupational and intellectual) were used as base codes and more specific skills or outcomes, such as diversity, leadership and spiritual growth, as subcodes to explain these wellness dimensions.

The findings indicate that BeWell has indeed succeeded in developing valuable wellness skills in participating mentors and that mentors feel they have grown immensely. The implications of these findings strongly support the continuation of BeWell to enhance student wellness, and by implication student success.

Future research will focus on investigating the effects of student wellness on the academic performance of students, for both mentors and mentees. Tracking data regarding the quality and value of the BeWell experience will also be analysed. [\[Back to Index \]](#)

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Title: The Daily Struggles of EDP Students: A Mixed Methods Analysis

Contribution type: Research-based

Author(s): Kroon, C; du Plessis, A; Wagener, W

Keywords: Student Success, GRIT, Challenges

Abstract:

Grit is one of the best predictors of success (Stoltz, 2015). Duckworth (2016) describes it as intense passion plus intense persistence. Duckworth's research found grit to be a strong predictor of both cumulative grade point averages and first-year retention. Du Plessis (2017) has conducted at least six research projects since 2011, which confirm that grit is also an important predictor of academic performance at Stellenbosch. The natural next challenge for researchers is to find and document evidence-based interventions that can increase someone's grit, and possibly therefore his/her academic achievement.

The i-FlourishWell4Life programme at Stellenbosch was used as a vehicle to make such an attempt. This blended programme is integrated within the curriculum of extended degree programme (EDP) students from the faculties of AgriSciences, Engineering and Science. It enables EDP students to determine their grit profiles (as a pre- and post-test) via an online self-assessment and to participate in a series of grit enhancing online activities.

The "Three Hard Things" exercise, proposed by Miller (2017), was utilised as one possible way to enhance grit. The exercise is about listing the three hardest things that were done on a day. Research reported by Miller (2017) provides evidence that people who do this exercise regularly are more likely to persevere toward their cherished goals. During 2018, the 120 EDP students in the programme completed the online version of this exercise on 369 occasions. They therefore reported 1 107 things they struggle with.

A mixed methods analysis was performed on this data (their grit scores and responses to the exercise) with the aid of the Dedoose (www.dedoose.com) package. Broad categories of hard things students struggle with were coded (qualitative) and relationships between these and quantitative variables, such as their grit scores and academic marks, were investigated. The possible impact on pre- and post-test grit scores was also measured.

The findings of the study indicate that the top five challenges of EDP students were academic challenges, lack of energy, lack of motivation, studying and emotional challenges, and that approximately 70% of the students were able to increase their grit scores between the pre- and post-tests.

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Title: The Ignored Middle: Transition from First- to Second-year in Financial Accounting

Contribution type: Research-based

Author(s): Baard, R; Steenkamp, L

Keywords: Financial Accounting, second-years, transition, student success

Abstract:

First-year students and their transition from school to university is a field that has been and continues to be studied in great depth, with ample resources being expended on this group of students. However, second-year students and their experiences garner significantly less research and resources. This could lead to students that are well supported one year and left in the lurch in the year thereafter (Gahagan & Hunter, 2008). The study aims to address this concern in some small way, in the tradition of, for example Ellis (2010), Heier (2012) and Sterling (2018).

Financial Accounting 188 is a general first-year Financial Accounting module that provides all Economic and Management Sciences (EMS) students with a background in Financial Accounting, and prepares the students for second-year Financial Accounting if they elect to continue with the module. Financial Accounting 188 supports under-prepared students with no background in Accounting to get up to speed.

The purpose of the study is to answer the following research question: Does the current Financial Accounting 188 module support, or not support, student success in the current second-year Financial Accounting module? The objectives of the study is to determine in what ways do the Financial Accounting 188 module prepare students to be successful in the second-year Financial Accounting module, or where it falls short. In addition, it examines how the first-year Financial Accounting lecturers help prepare, or hinder, first-year Financial Accounting students to be successful in the second-year Financial Accounting module.

This qualitative study consisted of a detailed questionnaire distributed to the 2017 cohort of Financial Accounting 288 students that took Financial Accounting 188 in 2016. The questionnaire is based on one used in previously published studies (e.g. Steenkamp, Baard & Frick, 2009) and contained both open and closed questions.

Preliminary results of the content analysis indicate that first-year Accounting plays a significant role in various ways in preparing students to be successful in the second-year Accounting module.

Even though the results may not be generalisable beyond the scope of the study itself, the information will provide valuable empirical insight into the attitudes and opinions of second-year Financial Accounting students.

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Title: The Impact of a Blended Learning Hybrid Model on Nursing Education Students

Contribution type: Research-based

Author(s): Lourens, G; Hugo, J; Furst, L

Keywords: Blended learning hybrid mode, nursing education students, workshops

Abstract:

Success in higher education and the quality of academic engagement are intertwined. The Postgraduate Diploma in Nursing Education at Stellenbosch University has student drop out and retention concerns.

Nursing education seeks to create an environment that is conducive to learning. The South African Nursing Council stipulates nurse educator competencies (SANC, 2014). This demands a variety of student needs-appropriate teaching strategies. The Council on Higher Education (CHE) underlines enhanced learning as key to student success. Although online learning opportunities allow for flexibility, a student's satisfaction study with online engagement suggests that not all are comfortable with this innovation. There is a potential for students to become isolated from both peers and teaching staff (Halcomb & Peters, 2009:66).

Programme educators designed a hybrid model of blended learning as delivery system for their students. They facilitated three workshops to enhance modules in curriculum development, didactics and applied education. Workshops aimed to engage students with curriculum content. The workshops involved interaction with peers and facilitators on theory application in course assignments.

In this study, the focus was on (1) value and suitability of the workshops offering; (2) students' learning experiences and satisfaction with the teaching-learning strategies applied; and (3) identification of areas for improvement. Applying a qualitative, descriptive design, data collection involved focus group discussions (FGDs) with students. Two researchers independently analysed and then triangulated to enhance the reliability, credibility, validity and trustworthiness of findings. Findings indicate that the workshop innovations introduced in the course had a positive impact in terms of student learning and personal growth, preparedness for assessment through experiential practice, and better understanding of inter-relatedness between modules and the programme as a whole.

Student's responses highlighted areas for workshop improvement in terms of timing, training techniques and didactic terminology. The findings crystallised course challenges. This included a mix of factors such as the duration of the programme, the delivery strategy and associated methodologies, and an unrealistic learning demand made difficult by computer competency constraints. Students' experiences could inform future innovations to post graduate learning and teaching practice. The rise of mobility and a diverse student population should guide this process, cognisant of the time and change management involved.

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Title: The Impact of Teaching/Feedback on Summative OSCE of Third-Year Medical Students

Contribution type: Research-based

Author(s): Espen, B; Archer, E; Harmuth, K

Keywords: Feedback, teaching summative

Abstract:

We had introduced a number of differing teaching strategies aimed at enhancing learning through feedback into our MB,ChB 3 Early Clinical Skills module from 2011 to 2017.

These teaching strategies included directed feedback using a one-on-one, clinical facilitator:student model for sterile procedures with directed feedback (Ericsson, 1993; Roger Kneebone, 2007; “reflection in action” (Donald Schon, 1983); directed feedback using skills-guided Q CPR manikins and deliberative practice, using the teachings of Schon’s “reflection on action” and Ericsson’s deliberative practice with spaced repetition; students making videos of themselves performing a procedure, emulating Schon’s “reflection on action” and deliberate practice, as the students could redo the procedure as many times as they wanted to before uploading it for assessment.

We needed to evaluate whether or not these teaching strategies had a positive effect on student summative examinations. The aim of the study was to do a retrospective analysis of the Summative marks of the third-year MB, ChB students from 2011 to 2017 and blueprint that against the teaching strategies used for specific skills in each year. Feasibility in terms of time and resources was assessed for each teaching strategy.

Methodology:

A retrospective, cross-sectional quantitative study using a linear regression model of student marks / time and a trend analysis, using means and standard deviation, will be performed.

The study guides were used to blueprint the teaching innovations followed in each year.

Summary of results:

The video of students performing a sterile procedure, deliberative practice and directed feedback had the highest impact on the summative assessment, although feasibility was low.

Discussion, conclusion and implications:

We acknowledge that this study has a number of limitations. Numerous factors can influence changes in student summative marks, e.g. examiner’s inter-rater reliability.

We have indicated evidence of deliberative practice and directed feedback, showing superiority. The feasibility of the teaching strategies will be discussed during the presentation.

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Title: The Influence of a Flipped Classroom on the Learning Approaches of First-Year Speech-language Therapy Students

Contribution type: Research-based

Author(s): Visser, M; Louw, A; van As, J

Keywords: Flipped classroom, deep learning

Abstract:

Approaches to learning refer to the ways students go about their academic tasks, thereby affecting the nature of the learning outcome (Biggs, 1994). Research suggests that the educational practices that students are exposed to, play a key role in students' adoption of ways of learning (Wang et al., as cited in Biggs, 1987). This notion is strongly supported by Ramsden, Reynolds, and Brown (1988) who aver that students adapt their learning strategies based on their perceptions of the chosen method of teaching. This implies that even students who have adopted a deep approach toward learning, but are overloaded with course content or are evaluated only on memorised facts, may consequently adopt a surface approach (Donald, 2002).

Because of the significant potential that selected educational models hold, the current study aimed to address the research question: How would a flipped classroom influence the learning approaches of first-year Speech-Language and Hearing Therapy students?

Biggs (1999) claimed that a student's approach toward learning is not a personality trait, but refers to the student's preferred way of learning. The type of activities that students choose to engage with when learning, are closely associated with the quality of their learning processes (Lucariello et al., 2016). Vermunt and Verloop (1999) proposed engagement in three critical types of activities for quality of learning: cognitive processing; affection or motivation; and metacognitive regulation.

After a series of four consecutive flipped classrooms over a four-week period, 24 students participated in three focus groups about their learning experiences. Qualitative, descriptive data analysis was conducted to explore students' engagement in activities for quality of learning: (a) cognitive processing; (b) affection or motivation; and (c) metacognitive regulation.

Results showed that the flipped classroom facilitated the participants' engagement in cognitive processing, fostered intrinsic motivation and encouraged metacognitive activity.

This study adds to the existing literature on effective instructional models in health professions education and provides guidance to educators in utilising this educational model to promote a deep approach to learning. Finally, this study emphasises the importance of curricular design and the crucial role of learning experiences when preparing students for their future careers.

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Title: The Influence on Distributed Clinical Training Sites of Undergraduate Student Placements

Contribution type: Research-based

Author(s): Van Schalkwyk, S; Couper, I; Blitz, J; de Villiers, M; Lourens, G; Muller, J; van Heerden, B

Keywords: Service learning, distributed learning, clinical training, teams

Abstract:

Background:

Community-based health sciences education is a common strategy used to improve the relevance of education and increase graduate retention in underserved communities. Stellenbosch University offers differentiated experiences in five undergraduate health professions programmes, which include clinical involvement at multiple district and community health facilities. We aimed to understand the views of key role-players at these facilities about the contributions made by students.

Methods:

This study analysed qualitative data obtained during interviews held at eight purposively selected public health care facilities. The facility manager, one clinical supervisor and one other clinician were invited to participate, leading to 24 individual, semi-structured interviews. We generated in-depth information on their perspectives of and attitudes towards the contribution of health professions students.

Results:

Students' contributions were seen to coalesce around their influence on the facility and its staff, on patient care, on the local communities served, and on the clinical supervisors at the sites. Students are seen to enhance the work environment through fostering interpersonal and collaborative approaches to care, to lighten the workload, to encourage the adoption of evidence-based practices, and to improve the quality of health care.

Discussion:

This study shows clearly that students have an effect on health care services, at facility, staff, patient and community levels. This effect is moderated by critical factors that are in place, for instance clinicians involving students in everyday practices of the clinical team, and enabling the pursuit of their learning outcomes to enhance fields such as evidence-based practice, holistic care and community projects. Issues that need to be addressed include the nature of the students, space and time, and adequate supervision.

Conclusion:

Students in distributed clinical training sites add value to the health service and, provided certain conditions exist, make an important contribution to health care.

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Title: The Physics Film Studio: Producing Videos of Demonstrations for Physics teaching

Contribution type: Innovation-based

Author(s): Maheso, A; Bosman, G; Newman, R; Rohwer, E

Keywords: Physics, demonstrations, video, microplastics

Abstract:

To enhance student understanding of Physics principles and concepts presented in lectures, it is valuable to include in-class demonstrations or video clips of demonstrations. The demonstrations complement traditional textbook resources and lecture content (e.g. PowerPoint and/or board presentations) presented in class by illustrating the application of principles/concepts. In some cases, the demonstration set-ups in lectures are complicated, leading to failures in the demonstration(s). In other cases, the set-ups are bulky, making it impractical to present demonstrations in lecture locations a distance away from the Physics Department. This is where the availability of videos of demonstrations can be useful. These videos can for example be incorporated into lecture presentations. The videos can also be made available on resource platforms such as SUNLearn for viewing by students outside lecture slots. One hindrance to the placement of commercially available videos of demonstrations on SUNLearn is the need to get permission from the intellectual property holders.

The Physics Department at SU has embarked on a programme of producing its own videos of demonstrations at its Physics Film Studio. The Studio allows for the recording of physics demonstration material in a controlled environment. The mission of the Studio is to produce short physics videos to assist the students in obtaining a better understanding of scientific topics, by making the connection between theory and practice. The production involves the video recording of topical physics demonstrations in conjunction with suitable editing and captioning for maximal pedagogical impact. During the presentation, we showcase our Studio and some videos we have produced over the past few months.

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Title: The Ratio Revolution
Contribution type: Innovation-based
Author(s): Southey, P
Keywords: Ratio, proportion, chemistry, physics, maths

Abstract:

“If 30 kg of a substance fits in a volume of 2 cubic metres, what mass of that substance fits into a volume of 7.5 cubic metres?” A “ratio” is a good example of a threshold concept; a concept that has the potential to severely obstruct academic progress. Ratios are found in all scientific disciplines, and are fundamental to a quantitative understanding of comparison. Students usually arrive at university with an algorithmic understanding of ratios: “I cross multiply and solve for x”. I will present “The Ratio Table”; a new way of teaching ratios that emphasises meaning making, and makes use of spatial reasoning. I will demonstrate how the ratio table can aid in the understanding of any physical quantity that involves the notion of “per”, e.g. Population Density: People per square kilometre; Speed: metres per second; etc. I will also present data from a pilot study conducted with colleagues as part of our PREDAC project. After a 15-minute teaching intervention on the ratio table, the pre-test/post-test results show significant improvement in students’ sensemaking of ratios.

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Title: The Role of a Peer-Mentoring Programme in Facilitating EDP Students' Access into Higher Education

Contribution type: Innovation-based

Author(s): Lombard, S

Keywords: Extended Degree Programme, first-year students, mentoring

Abstract:

This FIRLT funded project involves a study to examine the social and academic impact of a peer-mentoring programme for first-year students on the extended degree programme (EDP) within the Faculty of Arts and Social Sciences.

The EDP provides an alternative entry into higher education for so-called "at risk" students or students from "educationally disadvantaged communities". Specific support modules within the programme are aimed at assisting the students with the transition process from basic education into higher education in order to increase their chances for academic success. In 2015, a formal peer-mentoring programme was introduced as an additional support mechanism for the faculty's EDP first-years. The mentor programme aims to create a safe space within which first-year students are able to interact with a senior EDP student, their mentor, while the sessions are focused on sharing experiences related to transitioning the gap between school and university.

In this presentation, the author will be sharing information related to the structure of the programme together with a report on the data gathered since 2015 from annual evaluation processes to determine the impact of this mentor programme.

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Title: The Story about the Polymer Scientist and a Thousand Z-generation Students

Contribution type: Innovation-based

Author(s): Lutz, M; Retief, L

Keywords: E-learning, polymer science, first-year students

Abstract:

“If our age was to be named for the materials that characterise it – as were the Stone Age and the Bronze Age of the past – it might be known as the Age of Plastics.” These were the words of Dr. Giulio Natta, who won the Nobel Prize in 1963. These words are as relevant today as they were when he uttered them more than 50 years ago. Polymers form part of every aspect of human life, from simple applications such as packaging and construction, to high-tech applications such as the motor industry, robotic and space technology, computer and information technology, medical applications, as well as water treatment and purification. Yet, school leavers often do not know what polymers are.

Owing to limited time in the first-year Chemistry curriculum, it remains a challenge to introduce Polymer Science at first-year level in a meaningful way. The digital culture of the current generation of students were utilised to address this challenge by taking the introduction to Polymer Science out of the lecture room in an innovative, interactive and e-Learning based way. Students had the opportunity to master the relevant concepts online and in their own time. For this purpose, interactive learning material was developed by making use of PowerPoint software in combination with the iSpring toolkit. The iSpring toolkit was used to convert the presentations into online mobile-ready e-Learning based material. Students wrote a compulsory online pre- and post-test which indicated a statistically significant increase in student marks going from a failed result (43% group average) to a pass with distinction (80% group average). Students were provided with the opportunity to evaluate this online material by way of completing an online feedback survey. Rasch analyses were carried out on this online feedback survey and the results indicated that students experienced the online introduction to Polymer Science in a very positive manner. This project furthermore provides valuable insight into the use and integration of iSpring and SUNLearn and shows great promise for the intended development of Mode 2 modules at Stellenbosch University.

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Title: To Guess or Not to Guess
Contribution type: Innovation-based
Author(s): Lutz, M; Retief, L
Keywords: Online assessment, partial knowledge

Abstract:

Multiple-choice exams are growing in popularity because of the administrative burden with increasing student numbers (Douglas et al., 2012). These types of exams are also perceived to have an objective nature and provide ease in grading and statistical analysis. Along with this, learning management systems (LMS) and other online platforms support the electronic completion of such tests and therewith allow for immediate summative feedback, which contribute to enhancing learning.

This paper will report on the use and comparison of two specific types of multiple choice testing systems, namely partial scoring elimination testing (PSET), and partial scoring traditional multiple choice (PSMCT), used for formal online assessments in first-year Chemistry. The use of both systems aimed at minimising guessing and crediting partial knowledge of the students. The 'Elimination Procedure' was proposed by Coombs et al. (1956), and various researchers have adopted this procedure using different scoring methods. The PSET was used during 2017 and the first semester in 2018 and worked as follows: Each question had five possible answers (distractors) and students were encouraged to eliminate only the options (out of four incorrect distractors) that they were certain of as incorrect. The PSTMC involved traditional multiple-choice type of questions, but allowing between zero and all of the distractors to be correct. Partial marking was applied in both systems. Statistical analysis using Rasch modern test theory (Retief et al., 2013) was used to investigate and evaluate the two different partial scoring testing (PST) methods in First-Year Chemistry assessments. Rasch analysis revealed that PSET did not function as intended with regard to the validity and reliability of the results of this scoring method. Students were more likely to score full marks or zero than any partial marks. Qualitative data obtained from a questionnaire sent out to the students on their experience of this system confirmed a high level of guessing during PSET. Rasch analysis of the results from PSMCT revealed a decrease in guessing when compared to PSET and this was confirmed by student feedback from a student questionnaire.

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Title: To Kill a Canary: Interpreters and Educational Practices at Stellenbosch University

Contribution type: Research-based

Author(s): de Jager, S; Wheeler, R

Keywords: Educational interpreting, cognition, effective teaching, academic literacy

Abstract:

Since the beginning of educational interpreting at Stellenbosch University, interpreters have gradually moved away from a strict adherence to prescriptive professional norms of interpreting every word as faithfully as possible, to a role of co-teacher being co-responsible for their clients in the education process. This development resonates with research results in various interpreting contexts revealing interpreters as active co-constructors of meaning together with the other communication participants. This is also in line with Pöchhacker's (2012) view of the institution serving as a hyper norm, implying that the objectives of the larger university as an institution of teaching and learning should inform the guiding principles of interpreters in the classroom.

Interpreters are constantly identifying and brokering the meaning in a lecturer's utterances, which makes interpreters an effective barometer of teaching style. When they struggle to understand, it is likely that the students are experiencing the same difficulty. The quality of the interpreting could therefore reflect how lecturers' lecturing styles can either promote or hinder cognition.

The Language Centre's Interpreting Service has, since its inception, accumulated recorded interpreted lectures, a significant number of which have been transcribed. The research team in the Interpreting Service has drawn from this data and investigated examples where either clever and rigorous teaching practices promoted quality interpreting or where the way in which lecturers packaged and conveyed information made it difficult for interpreters to render a high-quality interpreting product to promote effective learning. This paper aims to communicate these insights to lecturers in an effort by interpreters to partner more effectively with lecturers to transfer knowledge to students.

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Title: Towards Empirical Validation of Theoretical Assumptions in Clinical Legal Education

Contribution type: Research-based

Author(s): Van der Merwe, SJH

Keywords: Empirical research, theoretical validation, data production, enabling analysis

Abstract:

Practical Legal Training 471 (PLT) is the only Clinical Legal Education (CLE) module currently offered by the Faculty of Law. It has an important function in that it offers to final-year law students the opportunity to acquire and develop professional skills in a clinical setting. In this service-learning module, students are engaged in authentic, active, student-centred learning, while partnering with the Faculty's Law Clinic in pursuing its social justice agenda. Despite overwhelming international support for CLE as a teaching methodology, it has a limited role in the current LLB curriculum where it is offered as an elective to a relatively small number of final-year law students. In this respect, Stellenbosch reflects the position of many other university law faculties.

An expanded CLE programme, available to all students of the Faculty, would assist the efforts of producing graduates possessing the attributes that responsible professional education strives for. From a pedagogical point of view, CLE is ideally suited to cater to modern teaching and learning expectations. Its strengths have been acclaimed in literature for almost a century. Not only scholars, but also practitioners widely support mandatory CLE programmes for law students, and expanding the PLT module would also make sense from an institutional and access to justice perspective. Yet there are several practical and ideological challenges that deter universities, such as Stellenbosch, from offering CLE as a compulsory module. Turning to pure theoretical, or hypothetical, authority is often not enough to encourage decision makers to increase efforts to overcome these challenges.

During 2017, FIRLT provided funding to generate comprehensive empirical research into the existing PLT module, with the aim of producing reliable and robust data on student and alumni perspectives of the Faculty's CLE offering. This independently sourced dataset has proven to be both interesting and valuable in its support of the theory on the affordances of CLE. This data also allows for in-depth situational analysis to develop a reasonable framework for facilitating the successful expansion of PLT in the future. The presentation will consider the research methodology, the findings of the study and the way forward, and will include a full literature review.

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Title: Towards Selection for Success: A focus on the Low-Performance Students with the Aim to Understand

Contribution type: Research-based

Author(s): Louw, A; Fredericks, F; Blitz, J

Keywords: Selection, throughput, low performance

Abstract:

Introduction: An objective for medical schools in South Africa is to widen access for students into the health sciences professions with the aim to redress inequalities of the past. A research study on a specific group of students revealed that some students who were initially selected based on a good selection factor do not perform well. If faculty could determine who these students are, then possible interventions could be planned to support these students in future.

Methods: The study population is all students (admitted as school leavers) who enrolled at the Faculty of Medicine and Health Sciences between 2012 and 2015. This is a quantitative correlation-based retrospective study analysing academic success against the student's selection factor (Institutional Permission: IRPSD-821). Repeated ANOVA testing was used to assess factors and covariates associated with the average mark over the first three years of study. Six variables (first-generation student; race; province of origin; gender; language; school quintile) were factored in. Low performance was defined as scoring less than 55% on average over the first three academic years.

Results: Seventy-five students were identified in this low performance category. Six different frequency variables were identified as the research variables that could possibly assist in understanding the underperformance of these students. Three of the different frequency variables (first-generation students; race; province of origin) were associated factors that should be explored further, while the three others were not found to be associated.

Discussion: Faculty is interested in the reasons that could possibly be predictive of low performance of students who were initially selected into the MB,ChB programme based on, among other things, academic success at school. Results show that some factors are associated, but are unlikely to be predictive. Further research could valuably explore individual cases to gain an understanding of underperformance of students.

Conclusion: As a public higher education institution with an obligation to redress access, but also needing to pursue throughput of students, it would be of great interest to establish which (or which combination) of specific components offer us the most useful indicators of underperformance.

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Title: Transformative Learning as Pedagogy for the Health Professions: A Scoping Review

Contribution type: Research-based

Author(s): Van Schalkwyk, S; Hafler, J; Brewer, T; Maley, M; Margolis, C; McNamee, L; Meyer, I; Peluso, M; Schmutz, S; Spak, J; Davies, D

Keywords: Transformative learning, health professions education, scoping review

Abstract:

Transformative learning (TL) has been described as learning that challenges established perspectives, leading to new ways of being in the world. As a learning theory, it has resonated with educators globally, including the health professions. Described as a complex, meta-theory, TL has evolved over time, eliciting divergent interpretations of the construct. This presentation focuses on the results of a scoping review that provided a comprehensive synthesis of the relevant literature. The study sought to determine how TL is currently represented in the health professions education literature with a view to enhancing definitional clarity and informing its future application in the field.

Arksey and O'Malley's six-step framework was adopted to review the period from 2006 to May 2018. Ten bibliographic databases were searched, generating 1 532 potential studies. After several rounds of review, first of abstracts and then of full texts, 99 studies were mapped by two independent reviewers onto the internally developed data extraction sheet. Descriptive information about included studies was aggregated. Discursive data was subjected to content analysis.

A mix of conceptual and empirical research papers, which used a range of qualitative methodologies, was included. Nursing was the most featured profession, with studies from the USA, UK and Australia being most prevalent. Insights relating to how TL manifests and influences behaviour, as well as how it is experienced, demonstrated much congruency and was seen to be clustered around the work of key theorists.

The training of health professionals often takes place in unfamiliar settings where students are encouraged to be active participants in providing care. This increases the opportunity for exposure to learning experiences that are potentially transformative, allowing for a pedagogy of uncertainty that acknowledges the complexity of the world we live in and questions what we believe we know about it. TL provides educators in the health professions with a theoretical lens through which they can view such student learning.

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Title: Transition from face-to-face teaching to Blended Learning on Postgraduate level: context relevant enabling and constraining factors

Contribution type: Research-based

Author(s): Odendaal, A

Keywords: Blended learning, technology-enhanced learning, digital education, postgraduate teaching, transition process.

Abstract:

Physical infrastructure, staff capacity, government subsidies and students ability to afford tertiary education are significantly inhibiting further growth within the higher education (HE) sector in South Africa. Due to continuous developments in technology, students expect an engaging and flexible learning experience, irrespective of variations in student or lecturer level of digital literacy. Blended learning, viewed as a combination of face-to-face and online modes of delivery is therefore increasingly applied as strategy in HE institutions to address context-specific teaching and learning challenges and opportunities with the ultimate aim of enhancing the student learning experience.

Stellenbosch University Strategy for Teaching and Learning 2014-2018 outlines the centrality of information and communication technologies (ICT) in enhancing teaching and learning, with substantial investment in blended learning implementation. All programme renewal and curriculum development initiatives on undergraduate and postgraduate level aim to give effect to these strategic priorities by creating a total learning environment that optimises the ability of students to learn. Aligned to the strategic objectives of SU and within a market segmentation strategy, the Department of Industrial Psychology identified the need to develop a Postgraduate Diploma in Strategic Human Resource Management to broaden access via technology-supported education, targeting the working student and expanding into new knowledge markets while increasing the diversity profile of students. A total rethinking of the traditional mode of delivery is therefore required based on teaching philosophy, needs of students, and demands of the discipline, context and available resources to move beyond the awareness and exploration phase towards the implementation of enhanced blended learning.

Against this background the research question is stated as:

What are enabling and constraining factors that inform the transition from face-to-face teaching to blended learning on postgraduate level within the Department of Industrial Psychology at Stellenbosch University?

The study draws on existing blended learning frameworks to explore context relevant enabling and constraining factors. In support of the main research question, a qualitative study within the interpretive paradigm was undertaken to explore and describe the transition from traditional face-to-face teaching towards enhanced blended learning on postgraduate level within a context that has no experience of blended learning in their offering. Utilising thematic analysis, evidence from the semi-structured interviews (inductive phase) as well as literature (deductive phase) informed the development of a systemic institutional framework that presents the context relevant enabling and constraining factors (on macro, meso and micro level) to enable the most effective use of online learning technologies, enhance student experience and student learning outcomes and assist the context. The research outcomes will not only guide the transition but also inform subsequent design and implementation of the Postgraduate Diploma in Human Resource Management in the Department of Industrial Psychology. Preliminary findings further identified main themes related to strategic drivers of change, infrastructure, institutional support, transitional process, stakeholder engagement and institutional and context-specific culture.

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Title: Undergraduate Medical Students' Reporting on Barriers and Enablers when Performing Blood Cultures in the Hospital Setting

Contribution type: Research-based

Author(s): Van der Berg, T; Harmuth, K; Archer, E

Keywords: Transfer of learning, procedural skills, simulation

Abstract:

Background:

Undergraduate medical education in simulation aims to equip students with skills they can use in the healthcare environment. It is assumed that undergraduate medical students avoid performing blood cultures for fear of collecting the specimens incorrectly. Following the correct guidelines is crucial because contamination of the specimen can lead to unnecessary antibiotic therapy and hospital expenses. The procedure is taught to third-year medical students in the Simulation and Clinical Skills Unit (SCSU) and was developed with the guidance of the Microbiology Department. Students typically report they are reluctant to perform the procedure and when they do, they often feel as if they are doing it incorrectly.

Summary of work:

The goal was to explore the barriers and enablers encountered by undergraduate medical students when performing blood cultures in the hospital setting. Ethical approval was obtained from Stellenbosch University. Data was collected during August 2017 and students placed in hospital during that time (n=250) were approached to complete survey questionnaires. Data was recorded in Excel and quantified. This was a descriptive study and confidentiality was maintained.

Conclusion and recommendations:

Barriers hindering undergraduate medical students from performing blood cultures correctly in the clinical setting include equipment shortage and the example set by some medical personnel in the hospital who perform the procedure substandard. Enablers include the SCSU making peer assessment tools readily available to the students and allowing them to practise and improve their technique and confidence. Clinical facilitation in the hospital would be beneficial.

Simulation teaching must align to clinical practise and available resources in order to help students effectively transfer their knowledge and skill in the clinical setting. Often, the clinical area is not supportive and it is important to address this in the area where the student is placed. Recommendations beneficial to student learning include readily available procedure guidelines, appropriate equipment and clinical facilitation in the hospital setting.

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Title: Unique Ways to Enhance Critical Thinking in Physiology Undergraduate Classes

Contribution type: Innovation-based

Author(s): Essop, F

Keywords: Physiology, undergraduate classes, active learning, critical reflexivity, student-centred

Abstract:

Physiology undergraduate students grapple with large amounts of content for organ systems and mostly memorise facts to pass tests and exams. As organ systems are usually taught separately, students struggle to understand how different systems cross-talk and/or are integrated within the whole organism. To address this, three in-house developed active learning strategies were employed for third-year Physiology students (main campus). There was an emphasis on the “pedagogy of engagement” with the adoption of cooperative learning to reach common goals (Smith et al., 2005). For the Burning Questions exercise, a case study is put up in class and a team (2 to 3 students) then research the question and present their findings to the class (at next lecture) in a fun-filled way. Students are encouraged towards critical reflexivity by the lecturer to gain a more integrated understanding of Physiology concepts. For the Check Mate – Sole Mate exercise, a test- or exam-type case study is provided to the class and students can go solo or select a classmate before answering questions that follow. Students have access to resources but now work against the clock to complete all questions (20 to 25 minutes). One volunteer per question is invited at the end of this session to share their respective answers with the class. For the “CSI-type” running theme, students are faced with a crime scene together with related evidence. They are subsequently regularly engaged for inputs, whereafter summaries of what is actually happening are provided by the lecturer. The running question continues over several lectures and additional evidence emerges at regular intervals. All case studies simulate a real-world setting and are underpinned by the social view of learning (Boughey, 2012), while there is also an emphasis on positive interdependence (Chickering & Gamson, 1991). This approach can relatively easily be applied in a broader context within the University. The approach is student-centred and allows for successful reflection of subject content, and also promotes critical thinking and problem-solving skills (Eberlein et al., 2008). Together such initiatives are geared toward the acquisition of various skills, thereby leading to the graduation of resourceful, innovative and engaged citizens (Edgerton, 2001).

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Title: Using Blended Learning in Social Work Education: An Uncomfortable Shift

Contribution type: Research-based

Author(s): Khosa, P; Zimba, Z

Keywords: Blended learning, social work education, student's participation, authentic learning framework

Abstract:

The use of a blended learning approach has increased in higher education around the world. Social work is no exception, as many schools worldwide have quickly and thoroughly adopted technology in their classrooms and curricula. However, the use of blended learning in social work education has not been fully investigated in South Africa.

Hence, this study explored how social work educators implement blended learning in order to enhance students' participation in a classroom setting. The study used theories of teaching by Fox (1983) and the authentic learning framework as elucidated by Herrington & Oliver (2000), which argues that using information communication technologies (ICTs) to complement face-to-face teaching can create an authentic learning environment through the incorporation of authentic elements such as in-class discussion, online discussion forums, role-plays, group tasks and collaboration across space and time. The study is qualitative in nature and an exploratory research design was employed for the study. In-depth interviews with 15 social work educators across various universities in South Africa were conducted and thematic content analysis was used to analyse data.

The findings of the study revealed that social work educators use different tools in their teaching to enhance students' participation in their classrooms. The findings also yielded challenges experienced by both educators and students in the use of blended learning such as poor Wi-Fi connection, time demands for both students and educators, as well as students without electronic devices. Although some of the challenges proved to be uncomfortable, the educators found the use of blended learning rewarding in their teaching. Therefore, the study contributes to evidence-based knowledge, which could inform social work education practice in the technology age and capacitate students to meet the diverse needs of service users. The study concludes that the use of blended learning in social work education does enhance students' participation in classrooms and enables students to practise authentically in their field of education. Thus, adopting effective blended learning course design, which integrates face-to-face and online interaction, is imperative in order to increase student engagement in and out of classrooms, regardless of the discomfort this may create.

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Title: Using Pecha Kucha as a Psycho-Educational Facilitation Tool for Training School Counsellors

Contribution type: Research-based

Author(s): Damons, L; Jacobs, C; Dreyer, L

Keywords: Professional Learning Community, Pecha Kucha, psycho-education

Abstract:

The Health Professions Council of South Africa (HPCSA) requires BEd Hons (Educational Psychology) students to provide psycho-education. The rationale for this research is that students go beyond the time limit they have. This is problematic as the gap between presentation and engagement compromises authentic learning. The purpose of this research was to introduce students to Pecha Kucha (PK) as an alternative form of psycho-educational presentation. PK is a novel and ingenious PowerPoint presentation format that contains twenty slides with visuals and minimal text, presented in twenty seconds (Murugaiah, 2016).

This research is situated in a professional learning community (PLC) theoretical framework. There is international consensus that PLC creates opportunities for sustainable reflexive praxis that promote pragmatic co-construction of knowledge and the ability to critically reflect and creatively use strategies to problem solving in a process of continuous learning (Du Four, 2004; Mezirow, 1990).

This interpretive qualitative research was conducted within a participatory action research (PAR) design. It was based on the epistemological assumptions that are social constructivist in nature (Creswell, 2007). The ontology of social constructivism is that reality is socially constructed, which will encourage reflexive praxis of critical skills of the responsive counsellor (Denzin & Lincoln, 2011).

Research question: How do trainee counsellors experience Pecha Kucha as a facilitation tool for psycho-education with learners of varying ages in schools?

This purposive sample constituted of voluntary participants enrolled in the BEd Hons (Educational Psychology) programme at a university. Data was collected through participant generated artefacts and a focus group reflection. An iterative data analysis method was used whereby data was collected with the aid of the ATLAS.ti computer program. The results indicated that the students found that it took longer to prepare a PK presentation. The use of PK encouraged interactive participation and improved information recall.

Conclusions: PK has the potential to be useful in enhancing learning and in individual and collective capacity building within a PLC.

Implications: PAR can be a valuable research methodology to promote teacher/counsellor development within a PLC. The significance of this research lies in its exploration of new methods to foster a culture of creative critical engagement with academic context. [\[Back to Index \]](#)

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Title: Views on SoTL in Engineering
Contribution type: Research-based
Author(s): Blaine, D
Keywords: Scholarship of Teaching and Learning

Abstract:

During the drafting of Stellenbosch University's new Teaching and Learning Policy in 2017, Scholarship of Teaching and Learning (SoTL) was used throughout the document to inform guidelines and definitions for good teaching practice. In particular, different levels of teaching scholarship were described, with reference to SoTL literature, as reflective practitioners, scholarly teachers, teaching scholars, and leaderly teaching scholars. Feedback from various academic forums indicated that there was no clear or widespread understanding of SoTL. Furthermore, academics were confused as to what was meant by or expected from these teaching level descriptors. Research into leadership practice notes that for a community to engage in meaningful, sustainable change or progression there has to be clear communication and a good understanding of a common vision. As such, this study focuses on the perspectives of academics at Stellenbosch University's Faculty of Engineering, in order to understand how these academics view and experience SoTL in their daily work environments.

The theoretical framework lies in the social constructivist paradigm. In this case, it is assumed that academics' views of SoTL are constructed through their interaction with SoTL within their teaching contexts. The methodological approach is a phenomenological study, with elements of phenomenography included. Phenomenology is a research method that is used in order to gather data describing how different people, within the same context, experience a particular phenomenon, such as SoTL in the Engineering Faculty. Phenomenography is a related method but it focuses on drawing distinctions between the different ways in which a phenomenon is viewed. For both research methods, it is critical that the researcher's goal is only to describe perspectives; the goal is not to try to understand or to explain why the views are held or even why different views exist. The results presented here follow from the initial one-on-one interviews with a selected group of academics from the faculty. The participants were selected to gather a wide range of views from academics who have been involved in teaching for various lengths of time, at various post levels, from different engineering disciplines, and who have had varying levels of active participation in SoTL activities in the faculty.

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Title: Virtual Classroom Trails in Hydraulics 324 – Civil Engineering

Contribution type: Innovation-based

Author(s): Botha, B; Jacobs, H

Keywords: Hybrid classroom

Abstract:

Offering online face-to-face lectures could be an easy supplement source to traditional classes to help students improve their grade performances (Wieling & Hofman, 2010). This pilot study sets out to establish whether Hydraulics 324 (Civil Engineering) could be restructured slightly and offered as a hybrid classroom, allowing for online participation and assessment. This study developed three online lectures for the module Hydraulics 324, structured around the current module content. The first two lectures were recordings of a traditional lecture with additional visual aids added to the videos, and the third was a livestream Q&A review session. Previous studies have shown that when online videos replace face-to-face lectures, the students' grade performance drop; while online videos used as an extension of traditional classes tend to improve the performance of the students (Bos et al., 2016; Larkin, 2010; Sawon et al., 2012; von Kinsky et al., 2009; Williams et al., 2012). The first lecture recordings served as supplementary source to the traditional class. The second and third lecture gave the students the option to replace the face-to-face class with online video recordings. This study surveyed students at the beginning of the semester and at the end of the semester in order to evaluate their experience. A total of 106 students were part of this study, and only 19% opted to attend class for lectures 2 and 3. The viewing statistics for the online lectures showed that students viewed the lectures more than once (this used for revision). The study showed that hybrid classrooms were viewed positively by students, and could be useful for more difficult topics, since the students can constantly review videos until they understand a specific topic. In addition, even though the recording and editing of the videos presented a larger workload than expected, the videos could be reused year-on-year, reducing load on lecturing staff in the future. Lastly, lecturers should beware of minor errors during lectures (especially if livestreaming is used), since a mistake will be reinforced due to multiple views.

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Title: Welcoming Practices – How are We doing?
Contribution type: Research-based
Author(s): Petersen, J; Kloppers, P
Keywords: First-years, welcoming programmes, unacceptable practices, values-driven management

Abstract:

Literature draws links between the initial experiences of first-year students and their subsequent adjustment, persistence and academic success (Terenzini and Reason, 2005; 2010). At SU, the pomp and ceremony that accompanies the reception of the newcomers is the culmination of months' preparation, and planning of the Welcoming Programme (WP), before the students arrive. The premise of the WP is to provide newcomers with a variety of welcoming experiences and activities that are positive and constructive, aimed at helping them to adjust and integrate with the University in a hospitable, friendly and dignified manner (Report, 2014), promoting student engagement and academic success.

However, the unjust treatment of first-years through undignified rituals taints the euphoria and excitement of the 'honeymoon phase' (Gullahorn, 1963). After the 2014 WP, SU commissioned a Task Team to investigate persistent unwelcoming practices that were contrary to the values espoused by not only the University, but also the SA Constitution and the Bill of Rights. The Task Team deemed these occurrences 'extremely disturbing', directly opposing the ethos of hospitality, friendliness and dignity – referring to it as unacceptable welcoming practices (Report, 2014).

Acknowledging the complexity and embeddedness of the unacceptable practices in the hierarchical power structures and identities of groups (Nuwer, 2004), SU undertook a systemic-holistic approach to weed out such practices. Guided by the Constitution and values of the University, the Centre for Student Communities embarked on a values-driven leadership development programme for all students in leadership, Res Heads and RES Eds. In essence, the values articulate what the organisation cares about, shape the culture, and are building blocks for appropriate conduct, mindsets and behaviour – informing actions and decisions.

In this presentation, we reflect on the newcomers' experience of the SU Welcoming Programme. Using data collected from questionnaires over the past three years and applying a statistical analysis, we were able to track how the values-driven approach had shaped practices in SU communities.

Noteworthy is how the survey has evolved from an investigative tool to a conduit for connecting and integrating SU faculties, support services and administration.

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Title: Wellness and the Success of Medicine and Health Sciences Students

Contribution type: Research-based

Author(s): Kroon, C; du Plessis, A; Louw, A; Sinclair, E; Koch, C

Keywords: Wellness, student success

Abstract:

First-year students in the Faculty of Medicine and Health Sciences annually complete an online wellness questionnaire as part of the first-year academic module “Personal and Professional Development”. The questionnaire uses Hettler’s model of wellness (Arloski, 2009) and assesses students’ perceived wellness, based on their wellness habits. It contains 100 questions that are evaluated on a five-point Likert scale. Students automatically receive scores for each of the six wellness dimensions, namely physical, emotional, intellectual, occupational, social and spiritual, as well as an overall wellness score.

In this study, the wellness scores of more than 1 300 students who completed the questionnaire between 2014 and 2017 were used, in conjunction with academic data, to determine whether a relationship exists between wellness and first-year academic performance (hinted by Botha & Cilliers, 2012). A prediction model, which included weighted first-year averages, wellness scores and biographical data, was built and used to investigate this, and other possible relationships.

Additional research questions include:

- Are any of the wellness dimensions individually, or collectively, strongly correlated to academic performance?
- Can an improvement in specific wellness scores possibly enhance student success, at least statistically speaking?
- What are the correlational relationships between the various wellness dimensions?

Seven wellness indices (per dimension and overall) were compiled to analyse the data and investigate these questions. Descriptive statistics, correlations analysis and regression analysis were performed in R. The conference presentation will provide detail about these statistics.

The main findings of this study indicate that:

- The self-perceived wellness indices of first-year medical students are high on average;
- Strong relationships exist between certain wellness dimensions (this has implications for accelerated wellness development); and
- Most importantly, evidence was found that overall wellness does indeed have a noticeable influence on the final weighted average mark of first-year students.

Future research will focus on establishing whether a Kernel causality exists between wellness factors and academic performance (based on the article “General Correlations and Kernel Causality Using R Package generalCorr” by HD Vinod [2017]).

What are the implications of the results obtained in this study? Holistic wellness development should be a strategic focus area within the faculty because of its relationship with academics. [\[Back to Index \]](#)