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Addressing the need for student data for research – Introduction to SUN-i business intelligence system

Contribution type: Practice-based

Author(s): Kistner, L

Keywords: student data, SUN-i business intelligence

Abstract:

Access to student data is often needed in performing research regarding student-related concepts, such as student success, student demography, etc. In this presentation an overview is given of the SUN-i business intelligence (BI) system that can give academics and researchers access to a wide range of student-related data.

The SUN-i BI system is a joint initiative by the divisions Information Technology and Institutional Research and Planning. Although the main objective is to provide management with information to support decision-making on middle and strategic levels of management, the data sources can also be used by academics or researchers to get an overview of the performance of students in specific modules or programmes. A wide range of demographic and other student-related information is available to enrich student results.

Users can get access to current and historical student information via interactive web pages (SharePoint) as well as through Excel Pivot tables and a data connection to the server. Useful Excel report templates are provided and users can easily customise their Excel reports to suit their individual needs. The reports are also dynamic, i.e., any changes or additions to the original data would automatically be reflected in Excel.

Currently users can get access to the following student data sources: undergraduate programme applications, student enrolments and qualifications, module enrolments and exam results, and student retention and throughput rates.

During the presentation a practical illustration of the use of SUN-i in Excel will be given.
Title: A practical theological investigation into the experience of first-generation Theology students

Contribution type: Research-based

Author(s): Weber, S

Keywords: first-generation, Theology, student success, student support, spiritual trauma

Abstract:

Much of the research on the First-Year Student experience reflects on the emotional, physical and academic challenges these students experience upon arriving at university. For first-generation students who are the first in their families to study at a university, the pressure to obtain a university degree seems to be even more. The recent ‘FeesMustFall’ movements in South Africa highlighted the challenges experienced by many students, and in particular, first-generation students.

One of the challenges specific to Theology students has been the tension between having a call to Christian ministry and the desire to obtain a Theology degree. This tension is fuelled by varying familial and denominational expectations placed on these students and also their preconceptions about what Theology is. Challenges faced by first-generation Theology students therefore include adjusting their theological lenses from their preconceived notions of Theology to understanding and grappling with the Theology they are taught. A core assumption in this paper is that this places added pressure on first-generation Theology students, which results in them experiencing spiritual trauma. Many wrestle with this tension between calling and academic qualification. Against this backdrop, this paper is aimed at answering the following question: What are some aspects of the spiritual and emotional trauma experienced by first-generation Theology students as they embark on a Bachelor’s degree in Theology? This will be a conceptual paper written through a Practical Theology lens which reflects theologically on the praxis of theological education. This then includes how students experience their theological training.
Title: A practice-based symposium on curriculum development at Stellenbosch University

Contribution type: Practice-based

Author(s): Nell, I; Plastow, N

Keywords: curriculum renewal, transformation, practice-based research, curriculum development

Abstract:

The SU Strategy for Teaching and Learning 2014 – 2018 calls for curriculum design that enhances participation within the classroom and the outside world and that is continually renewed. Curriculum development calls for scholarly teachers who are committed to improving their day-to-day practice as well as the vision to achieve the University’s strategic objective of renewal. The extensive literature on curriculum development highlights many different ways to develop curricula. Some literature reports the efforts of one person, other reports on whole departments involved in a process. This symposium is based on the work of presenters from different academic fields who have tackled curriculum development in different ways. Nicola Plastow of the Division of Occupational Therapy talks about a team approach using participatory action research to develop a new undergraduate curriculum rolled out from 2015. Ian Nell of the Faculty of Practical Theology and Missiology will talk about the journey that his Faculty undertook since 2014 in renewing their Master of Divinity degree programme, also through a process of participatory action research. Each will present a narrative of their journey of curriculum development, including the successes and challenges along the way. The floor is then open to discussion of participants’ curriculum development journeys.
Title: A research-based service-learning approach engaging students and societal partners in a collaborative process for curriculum renewal

Contribution type: Research-based

Author(s): du Plessis, J

Keywords: equitable social impact, curriculum reform, collaborative research process, student-engaged scholarship

Abstract:

Smith-Tolken and Du Plessis (2015) reflect on the potential of service-learning (S-L) as pedagogy to foster meaningful collaboration among all participants. Scholars argue that, as the field has matured, its definitions have converged on several core characteristics: S-L experiences advance both learning goals and community processes which is possible if collaboration among participants (students, faculty, community members, community organisations, and educational institutions) is inclusive and reciprocal. This results in the fulfilment of shared objectives and building capacity among all partners (Felton & Clayton, 2012). Reciprocity in collaborative partnerships creates a strong connection between the academic context and public concerns, while critical reflection enables and reinforces this linkage (Ash & Clayton, 2009; Felten & Clayton, 2011).

The above foregrounds a response to engage public discourse in higher education for transformation and curriculum renewal and aligns at SU with the Social Impact Strategic Plan 2017-2022, among other policy directives and value statements, to transform the institution through a deliberate intent to enact social impact. The means to achieve this include collaborative research and engaged learning and teaching pedagogies for ensuring full reciprocity of educational outcomes through establishing sound practices over time, and nurtured in communities of practice.

S-L activities and social interaction in a community development module (2017) used an inclusive collaborative research-based approach, grounded in community development theory and value propositions, to inform a curriculum renewal process, also serving as basis for further research. Participants will learn how to implement a curriculum renewal strategy to advance meaningful and equitable social impact.
Title: Assessment of a multi-intervention strategy for academic support to Engineering students: A teaching practice showcase

Contribution type: Practice-based

Author(s): Bladergroen, M; Tshamala, M

Keywords: multi-intervention, teaching practice, extended student support

Abstract:

Thermodynamics in Engineering has a reputation for being challenging and demanding for Engineering students regardless of the level of enrolment in the programme. Both the student feedback and success rate in the subject suggest that many students do not grasp the theory and its applications.

Furthermore, the teaching of Thermodynamics proves to be equally challenging for the lecturer for a number of reasons. These include the high abstraction level versus the wide range of applications, the unremitting introduction of new terminologies and unfamiliar concepts, and presenting the analysis of complex equipment.

In 2015 the Engineering faculty introduced an extended tutorship programme in order to support students with understanding and applying the theory, thus improving student success rates whilst maintaining and safeguarding quality education. The support involved a once-a-week one-hour lunchtime revision lecture. A once-a-week one after-hour hot-seat continuation session followed the revision lecture sessions. In addition to the above support (as from 2016), animations and vodcasts were introduced to provide more support towards consolidation of the theory. The team worked on the basis that traditional teaching and thinking in teaching are losing ground, and new innovative and sustainable approaches are necessary. A design-thinking approach was viable in producing a context-specific solution.

A progressive increase of up to 4% (class average), 10% (success rate), and 6% (number of distinctions), has been recorded. The success cannot be attributed to a single intervention but is seen as a combined result of the multi-intervention strategy, addressing both teaching style and out-of-contact support.
Title: ‘Blameworthiness’: Perceptions and understandings of plagiarism and the implementation of anti-plagiarism mechanisms

Contribution type: Practice-based

Author(s): De Villiers, M; Petersen, M

Keywords: plagiarism, anti-plagiarism, plagiarism detection, academic integrity

Abstract:

Student plagiarism is perceived to be a growing problem at universities worldwide. At SU, the issue of student plagiarism became pertinent again with the implementation of a new policy on plagiarism ratified in December 2016. The purpose of this policy is to set standards for academic conduct regarding the use of the work of others and the reuse of one’s own published work in order to promote academic integrity. The challenge that is faced at SU, as at many other institutions, is that the term ‘plagiarism’ is open to many interpretations. This can lead to confusion for staff and students alike. Analysing plagiarism cases in the Faculty of Theology over the last few years indicated that students seem to misunderstand the concept of plagiarism, are often ill-equipped to address plagiarism effectively, and lack sufficient knowledge regarding the proper use of plagiarism detection mechanisms such as Turnitin. In the past three years, various proactive and reactive teaching and learning mechanisms have been implemented to address these issues but have not resulted in sufficient change. The Faculty thus embarked on an initiative to create descriptive and structured foundational documents to serve as guidelines for both students and lecturers and to support teaching and learning mechanisms. This presentation serves as an introductory glance at the creation of such plagiarism documents and the potential impact it could have within the Faculty.
Title: Blended learning and other interventions used in first-year Engineering drawing

Contribution type: Research-based

Author(s): Coetzee, C; Wolff, K

Keywords: spatial visualisation, first-year students, Legitimation Code Theory Semantics

Abstract:

Spatial visualisation abilities are linked to the success of students in Engineering subjects. All first-year Engineering students attend a common Engineering drawing course. However, students have different backgrounds, with 30% who took technical drawing at school and 70% who had no previous exposure. In 2017 three interventions were used to address this: small tutorial groups, revision lectures and online concept videos. At the start of the semester students completed a mental rotation test from which a group with the lowest score was identified. These students followed the same lectures as the others but were divided into five small tutorial groups, each with an assistant. The groups had to spend an additional two hours per week with their assistant outside of normal hours.

Using Legitimation Code Theory, and specifically the dimension of Semantics, this paper analyses the kind of conceptual grasp required for 3D visualisation and draws on data from assessments, student use of revision lectures and online videos. Assessment results showed that the assisted group achieved a statistically significant gain in spatial ability compared to those who had no previous exposure and were not allocated to a small group. High revision lecture attendance saw final results between 50% and 60% while a number of students (n = 58) who failed the course never attended a revision lecture. The concept videos had a high number of views, although 35% of the students never watched any video. This research hopes to contribute to a better understanding of developing spatial visualisation abilities.
Title: Blended learning teacher talk – Implications for the educational technology field

Contribution type: Research-based

Author(s): Bosman, JP; Strydom, S

Keywords: blended learning, educational technology, knowledge affordance, academic development

Abstract:

Previous feedback from the blended learning short course showed that the course seemed to have made a difference in the practice of participating academics due to the way we conceptualise and teach a blended learning pedagogy. It is important to know how our conceptualisation of blended learning is commensurable with other approaches in the broader educational technology field. Therefore, our main research questions, looking at the teaching of the course, were: what is the knowledge of blended learning, and how does it speak to the field of Educational Technology?

Data collection was done via recordings of short course contact sessions and online interaction. We used qualitative thematic analysis which was supported by Specialisation as analytic lens, and then created an external language of description and translation device for epistemic and social relations – all concepts from Legitimation Code Theory (LCT). We used the LCT dimension of Specialisation to surface our blended learning knowledge-building approach. Findings suggest that knowledge practices amongst the team differ slightly in terms of epistemic and social relations but that the most important aspect is looking for commensurability within differing approaches to support transformational pedagogical approaches.

Showing how our understanding of blended learning (a subdomain of the educational technology field) can be represented in terms of (differing) knowledge practices contributes to both the practice and research base of the field as we grapple with the critical broader question of epistemological access in Higher Education. The educational technology ‘affordance’ of knowledge is suggested as a powerful new approach.
Title: Building capacity in meaningful modeling of infectious disease dynamics: Insights from a decade of international, interdisciplinary training

Contribution type: Practice-based

Author(s): Bellan, S; Dushoff, J; Hargrove, J; Hitchcock, A; Porco, T; Scott, J; Welte, A; Williams, B; Pulliam, J

Keywords: epidemiology, infectious diseases, mathematical modeling, statistics

Abstract:

We have been training international cohorts of researchers to conduct applied, data-driven research in infectious disease dynamics and to communicate across disciplinary boundaries since 2007. These efforts are now the International Clinics in Infectious Disease Dynamics and Data Programme, which includes two annual workshops – the Clinic on Meaningful Modeling of Epidemiological Data (MMED), run since 2010 in South Africa, and the Clinic on Dynamical Approaches to Infectious Disease Data, run since 2012 in the US – and a research scholars’ exchange program. To date, we have trained more than 435 students. Of these, 11 have completed I3D exchanges, 16 have served as MMED mentors, 19 have co-authored papers published as a direct result of the programme, and 7 have become workshop faculty. Here, we describe several key aspects of the programme that may be useful to others: (1) iterative evaluation, which has led to repeated modifications of structure and content, improving student experiences and learning outcomes; (2) our focus on communicating how analytical perspectives from classical and dynamical epidemiology complement each other; (3) several innovative pedagogic approaches to develop high-level abstraction and technical skills; (4) our mentored approach to individual and group work, which leverages a high faculty-to-participant ratio; (5) our approaches to teaching participants from a wide range of disciplines and career stages; and (6) our structure for ongoing interaction with the most promising students, which includes a pipeline for students to become faculty.
Title: Capacity-building of Technical Vocational Education Training colleges in the Water Sector

Contribution type: Practice-based

Author(s): Jackson, M

Keywords: capacity-building, TVET colleges

Abstract:

Stellenbosch University (SU) in collaboration with the Energy Water Sector Education Training Authority (EWSETA) are currently engaged in a sector flagship project. The objective is to develop the capacity of lecturers in teaching water-related programmes at Technical Vocational Education Training (TVET) colleges. The approach includes the establishment of Memoranda of Understanding (MOUs) with flagship colleges in key provinces, and collaboration with Water Sector institutions, specifically water service providers. In April 2017, SU held a qualification development scoping workshop, and managed to gain the involvement of key organisations in the Water Sector. This demonstrates that the university can become a leading institution in the coordination of partnerships towards the capacity-building of TVET colleges, through its research agenda, technology innovations, and accompanied knowledge transfer.

Based on the White Paper for Post-School Education and Training (2013), the objective of the Department of Higher Education and Training (DHET) is to expand and strengthen the role of TVET colleges in training delivery in South Africa. The approach requires partnerships between universities, Sector Education Training Authorities (SETAs) and employers in the development of curricula and expansion of occupational workplace-based training. A study conducted by the Stellenbosch University Water Institute (SUWI) in 2014 concluded that TVET colleges are underrepresented in water-related training, and there remains a skills mismatch between what is offered at colleges and the skills required at water service providers (SUWI, 2014). This presentation therefore strives to provide a perspective on the aims of EWSETA to alleviate the lack of skill within the Water Sector.
Title: Challenging inhibiting academic conventions through multilingual technical terminology as tools of empowerment

Contribution type: Practice-based

Author(s): Jonker, A

Keywords: Academic Literacies, first-years' success, innovative teaching, curriculum transformation

Abstract:

There is a common perception that students must meet specific academic literacy requirements before they can enter higher education (Russell et al., 2009:395). According to Lillis and Scott (2007:12-13), the Academic Literacies model employs an epistemology of literacy which uses a set of social practices with an explicitly transformative, ideological approach to the object of study. It examines inhibiting academic norms and conventions and explores alternative ways of meaning-making in academic contexts by acknowledging students’ resources as legitimate tools for making meaning (Lillis & Scott, 2007:13).

This study investigated whether first-year students’ learning in a course on contemporary South African politics could be scaffolded through systematic exposure to the technical terminology of a new subject field in their mother languages.

Students used their own literacies in the form of informal language and slang to discuss highly technical concepts. In the process, they managed to build confidence and make intellectual contributions to the curriculum content by engaging about these concepts with their peers, tutors and lecturer. Their ability to apply their theoretical knowledge with confidence in a real-life situation was tested when they were expected to engage formally with politicians in Parliament about issues that they had discussed informally in their tutorials. At the end of the module, students’ pass rates and meaning-making had been enhanced by integrating multilingual concepts into the subject content and allowing them to use their own oral and written literacies.
Title: Conceptualising competency-based education in the context of undergraduate Health Professions Education in South Africa

Contribution type: Practice-based

Author(s): Volschenk, M

Keywords: graduate attributes, competency-based medical education

Abstract:

In 2011 the Health Professions Council of South Africa contextually adapted the CanMEDs competency framework as an organising framework of core competencies for undergraduate Health Professional Education programmes in South Africa. This framework was concurrently adopted by the Faculty of Medicine and Health Sciences (FMHS) at Stellenbosch University (SU) as a graduate attributes framework. However, full-scale implementation of this framework at SU FMHS has proved challenging.

This conceptual paper reports on a discussion paper compiled by the author to address the need for a common understanding of concepts related to graduate attributes and Competency-Based Medical Education (CBME) and the potential influence thereof on the Health Professional Education continuum. It provides an overview of the development of the SU FMHS graduate attributes framework, incorporates various theoretical perspectives, clarifies important concepts, explores related curricular implications, and proposes relevant recommendations.

The paper argues that the approach to competency-based training as applied in postgraduate first-world medical education contexts may not be suitable for application in all areas of Health Professions Education, particularly with respect to undergraduate Health Professional Education in resource-constrained contexts such as SU FMHS. However, the notion of competencies in the form of professional roles that correspond notably with SU FMHS’ vision for graduate outcomes should still be considered a valuable concept for informing the longitudinal development of the SU FMHS graduate attributes. The author shares concluding reflections on how various tenets of CBME may prove useful in informing the teaching, learning and assessment of graduate attributes.
Title: Contextualised assessment of and for learning: Facilitating policy literacy in a postgraduate diploma course in Disability and Rehabilitation Studies

Contribution type: Research-based

Author(s): Ned, L; Ohajunwa, C; Luger, R; Geiger, M

Keywords: assessment for learning, contextual assessment, policy literacy, Disability and Rehabilitation Studies

Abstract:

Background: This paper is part of a broader evaluation of a post-graduate module in Disability and Rehabilitation Studies, aiming to develop rehabilitation professionals’ policy literacy.

Rationale: Policy literacy is an increasing need in contexts of service delivery deficiencies and human rights abuses experienced by persons with disabilities, globally and locally. Professional development of multi-disciplinary rehabilitation professionals should therefore be responsive to these needs.

Purpose: This paper aims to document an exploratory analysis of the process and value of a contextualised assessment of and for learning to facilitate the policy literacy of rehabilitation professionals.

The theoretical framing of the study is informed by literature on authentic learning and assessment for learning in higher education.

Research question: How can post-graduate students’ development of a contextualised policy brief fulfill assessment both of and for learning?

Method: a twofold analysis of the final module assessment was implemented. Firstly, the process of this assessment was critically analysed in relation to theory about assessment of and for learning. Secondly, the content of the pilot cohort’s final assignments (N=11) was thematically analysed as an indication of applied learning in policy literacy.

Findings: A contextualised assessment provided opportunities for students to synthesise and apply learning by creating a policy brief for their specific working context.

Implications: The assessment strategy has value in and beyond Disability and Rehabilitation Studies, with relevance to other disciplinary contexts where policy literacy is a needed outcome.

The significance of this research is in its application to current issues such as the recent Esidimeni tragedy.
Creating a model world: Introducing dynamic modeling to infectious disease ecology and epidemiology students via an active-learning approach

Contribution type: Practice-based

Author(s): Pulliam, J; Bellan, S; Dushoff, J; Hitchcock, A; Hargrove, J; Porco, T; Scott, J; Welte, A

Keywords: Biomathematics, epidemiology, models

Abstract:

We describe an exercise that helps students identify, clarify, and refine a research question by leading them through the development of a ‘model world’ (i.e., a conceptual model of their study system). The exercise begins with guided formulation of a research question that can be addressed through dynamic modeling. Students are then led through a process of (compartmental) model development, broken down into a series of manageable steps focused on dividing the populations of interest into relevant categories (states) and identifying important processes that involve interactions or transitions between states. After the group exercise, participants repeat the exercise individually, producing a model world to address their own research question and a schematic diagram describing its assumptions. Participants then test their model interpretation and communication skills through a version of the game ‘telephone’. Each participant translates another’s diagram into a written description. A third participant then translates the description back into diagrammatic form, after which each group collectively reviews their original diagrams along with the translated text and diagrams, to evaluate where communication broke down. Finally, the conceptual models are developed into short research plans that can be used as a framework for developing grant or dissertation proposals, or as a starting point for discussion with potential collaborators or supervisors. Crucially, following each step in the process, the output is critiqued in small faculty-student groups, to ensure students remain on track and allow them to learn from each other’s experience.
Title: Creating opportunities for learning through interactive digital learning objects in Health Professions Education

Contribution type: Research-based

Author(s): Keiller, L; Alblas, A; Foiret, J; Keiller, A

Keywords: blended learning, Health Professions Education, facilitating learning, instructional design, learning technologies

Abstract:

The Biomedical Sciences Department teaches foundational, core content for all programmes in the Faculty of Medicine and Health Sciences (FMHS). Increasing student - lecturer ratios and knowledge discrepancies served as motivation for this pilot study, using learning objects (LO) in the Life Forms and Functions of Clinical Importance 111 (LFF) module.

Health Professions curricula need to adapt to changes in biomedical knowledge and teaching approaches. One of the approaches that lecturers can use is blended teaching and learning which should focus on technology and understanding how students learn to design curricula.

Is the use of LO in a biomedical first-year module an effective tool for enhancing the student learning experience?

What are the barriers and enablers to the development and use of LO in the LFF module?

A pragmatic methodology with the Conversational Framework as the theoretical lens was selected for the study. A descriptive case study research design with mixed methods of data collection was used. All participants provided informed consent for this ethics-approved study (N16/05/069).

A correlation analysis between usage statistics and assessment results were used to determine the academic effectiveness of this intervention. A thematic network analysis identified the perceptions, barriers and enablers.

Academic outcome and qualitative analysis support the use of LO for facilitating learning. Barriers included technical and design problems. Enablers included facilitating learning, teaching and assessment.

Positive implications exist for the Programme Renewal Institutional projects as a result of this study which demonstrates the potential of LO for facilitating learning.
Title: Criminal Law 171 video project: Boldly going where no Criminal Law lecturer has gone before!

Contribution type: Practice-based

Author(s): Nel, M

Keywords: learning styles, active learning, collaborative learning, video clips

Abstract:

Criminal Law 171 (a compulsory year module for 1st-/2nd-year Law students) is designed in such a way that the course material, online experiences and assessments cater for a variety of learning styles. This year I am introducing an optional video project specifically aimed at challenging students to move beyond their instinctive legal preference for the (left-brained) sequential and verbal towards more (right-brained) visual, creative modes of learning.

Working in groups of five, students may hand in a 60-90 second film clip illustrating and accurately explaining any Criminal Law-related concept, case or issue. The clip must educate and inform their classmates about the law in an imaginative, entertaining, interesting and original way. There will be a class screening with prizes for the best submissions, which will also be made available online.

This intervention involves minimal extra lecturer effort since it is voluntary and student-directed/-driven. Assessment is fast and straightforward – the clips are short, group work cuts down on the overall number of submissions, and the mark awarded is an all-or-nothing extra 2% credit added to the year mark of students who meet the prescribed criteria.

I anticipate that the group-work aspect of making film clips will encourage active and collaborative learning, whilst its creative dimension will promote a more ‘whole-brained’, balanced learning orientation. My presentation will use selected excerpts from the student video clips to evaluate and/or demonstrate the extent to which my desired academic outcome of more holistic, inclusive and active learning has been achieved.
Title: Decolonising STEM one sandcastle at a time

Contribution type: Practice-based

Author(s): Adendorff, H; Wirth, K; Jacobs, K; McKay, M; Blaine, D

Keywords: decolonisation, STEM, reflection

Abstract:

Scholars agree about the value of T&L conversations for influencing teachers’ identity and practice. It has been argued that developing and maintaining teaching excellence requires ‘a great deal of talking about teaching’ (Gibbs et al., 2007:2) and that engaging in collaborative reflection could contribute to more research-based accounts of practice (Clegg, 2009). Gibbs (2007:2) calls for ‘new forums to build communities of practice about teaching’, however, opportunities for these conversations are rare in the academe. In this poster, we reflect on how a Focused Interest Group, discussing ‘Decolonising the science curriculum’, became such a community of practice with the aim of generating ‘practical and productive actions’ (McDonald et al., 2016:1146).

McKormack and Kennely (2011) identify engagement, connection and safety as key factors for constructing an ongoing conversational community. Using this model, we share our ‘Academic Sandbox’ stories (McDonald et al., 2016), and show how engaging with peers in a safe, collaborative, reflective space has helped a group of university teachers and academic developers form a community where conversations about decolonising Science could continue and flourish.

We hope that this poster will serve, in a small way, to also demystify the notion of an African epistemology and methodology (Mkabela, 2005; Owusu-Ansah & Mji, 2013) by showing how some of the values (namely honesty, respect, hope and trust) and approaches promoted by scholars of Indigenous Knowledge Systems (e.g., storytelling) were the reasons for the survival of this brave conversational community.
Title: Designing an academic skills module through the lens of Legitimation Code Theory's Autonomy dimension

Contribution type: Research-based

Author(s): Rootman-le Grange, I; Rewitzky, I

Keywords: academic skills, Legitimation Code Theory, scientific communication, computer skills, Science

Abstract:

The effective development of disciplinary literacies is a well-researched challenge in higher education. To address this challenge, current literature calls for embedded approaches where academic literacies are integrated into Science curricula through collaboration between disciplinary specialists and academic literacy specialists. In support of this call, researchers argue that Science and literacy share some principal cognitive processes from which such embedded approaches can gain. Furthermore, studies have shown that inquiry-driven literacy activities result in students learning how to read and write more scientifically, while mastering the subject content.

In light of this research we describe the design of a new Science module for all BSc first-year students that embeds the development of scientific writing skills and basic computer skills in the context of an inquiry-based interdisciplinary Science project. Using the Autonomy dimension of Legitimation Code Theory, we will rationalise the design of this new module in light of the previous research. Autonomy offers us tools to consider the relationships between the type of knowledge we are working with – in this case specific academic skills but also Science in general – and the purpose this knowledge is used for, which ranges from generic writing skills and general computer usage to the effective communication of Science.

We argue that this new module should support the effective development of generic academic skills required for the effective communication of Science. We also believe that the rationale behind the design of this new module can be of value to other academic programmes that experience similar challenges.
Title: Development of interactive content for Mathematics

Contribution type: Practice-based

Author(s): Burger, B; Masuret, J; Rewitzky, I

Keywords: eBook, eResources

Abstract:

Over recent years the demand for access to tertiary education in South Africa has increased, especially with regard to affordability. One way to address this affordability challenge is to replace expensive textbooks with free open source material of comparable quality and scope. Moreover, there is a need for Mathematics study material that is module-specific, customisable and relevant to the South African context. In addition, current hard-copy and many virtual textbooks provide a one-dimensional learning experience that does not cater for the learning needs of all students.

This project aims to address these shortcomings of traditional textbooks by providing a multi-faceted and interactive eBook with complementary resources (referred to as eResources) which can be utilised on various electronic devices, including smartphones. From the onset, a free open source textbook (OpenStax) was adopted and the content has been customised in the following ways: (i) additional bookmarks, hyperlinks and embedded videos have been added to enrich the learning experience, (ii) new content relevant to the South African context has been developed, and (iii) content-specific and self-marking quizzes were designed for the purpose of formative assessment.

Anticipated longer-term outcomes of this project include, but are not limited to, the following: (i) promote independent learning through self-study and self-assessment, (ii) encourage higher levels of content engagement, and (iii) support deeper understanding of concepts. This project features easily updateable content in minimal time and financial cost, thereby ensuring its future sustainability.
Abstract:

One of the key challenges in academic development work is that discipline-based academics often feel that the 'educational discourses' are inaccessible. This is particularly problematic in STEM fields where research tends to be more quantitative, repeatable, generalisable and governed by 'the Scientific Method'. This ‘positivist’ approach is challenged by qualitative educational research which foregrounds context, thus becoming less generalisable. In the seeming proliferation of educational research paradigms and methods, STEM academics may be hesitant about crossing this divide between the Humanities and the Sciences. The purpose of this paper is to demonstrate two translation devices that bridge the gap between the ‘two cultures’.

The research context is a final-year Chemical Engineering module which aims to teach students how to design and evaluate control systems. A major challenge is the integration and application of theoretical concepts through the use of technology in a system design project. The research draws on theoretical and methodological insights from both Education and Engineering. The first translation device (from the Legitimation Code Theory dimension of Semantics) enables us to describe complex Engineering concepts at different levels of abstraction. The second translation device is a representation of the complex system as a whole (both Engineering and Education), and entails a Design-Based Research methodology. This device functions effectively to enable a view of curriculum and learning, including the iterative, continuous improvement ethic in Engineering systems design processes. Together, the two devices aided in the redesign of the curriculum, teaching, learning and assessment approaches for the module in question.
Title: Equipping teachers with reading teaching skills to cope with multilingual classrooms

Contribution type: Practice-based

Author(s): Le Cordeur, M; Basson, M

Keywords: multilingual classes, reading comprehension, teaching strategies, teachers’ content knowledge, teacher development

Abstract:

The Constitution of South Africa (RSA 1996) recognised the equal status of 11 official languages in South Africa. Subsequently parents enroll their children in Afrikaans- and English-medium schools, providing challenges to teachers with regard to multilingualism. Increasing numbers of non-mother tongue learners are unable to reach their full potential because they do not have adequate reading comprehension skills. Teachers as well as lecturers in Higher Education find it difficult to support these pupils and students because they themselves have insufficient knowledge and skills to support non-mother tongue learners and students. It was therefore necessary for pre- and in-service teachers to be equipped with the necessary pedagogical knowledge. Final-year B.Ed students in the Afrikaans Home Language (HL) and literacy teachers from primary schools have been trained in the teaching of reading strategies to non-mother tongue learners of Afrikaans and English. Knowledge of language and cognition or strategies for reading comprehension in a non-mother tongue environment were not included in teacher training before. Teachers and final-year students were thus trained to use the Balanced reading approach (as prescribed by the new CAPS curriculum) in order to improve their skills. Reflection sessions were conducted with participants to discuss the impact of the adjusted programme. This as well as interviews with a sample of the participants provided data to adjust and refine the reading programme. Initial results show an improvement of learners’ reading skills and provided knowledge about how other learners and also students at higher education institutions can be supported in future.
Video clips used during lectures, or placed on platforms that facilitate flipped learning, can significantly enhance student learning. There are many clips available on the internet (e.g., via Youtube or Instagram). However, these clips need to be carefully curated to ensure accuracy (non-‘fake’) and relevance.

The focus of this work is on video clips illustrating Physics concepts. There are a number of commercial suppliers of such video clips. Often these clips are not exactly what is required by the lecturer. Furthermore, we are restricted in how we distribute these clips, because of copyright restrictions.

In order to address some of the problems listed above, we decided to establish The Physics Film Studio (TPFS) in the Physics Department at Stellenbosch University.

TPFM will create short movies that illustrate Physics concepts relevant to teaching in the Physics Department, using in-house equipment in a dedicated space in the department. We will discuss the status of the studio establishment and technologies (cameras and editing software) that we plan to use in production.

We will showcase at least three movies and discuss how we plan to share our creations internally (with students and staff) and externally (e.g., via an iBook).

The results of research into other institutions creating and distributing/selling similar clips will also be presented as a way to frame our initiative.
Title: Examination of the impact of Adaptive Learning on course results in Managerial Accounting

Contribution type: Practice-based

Author(s): Cilliers, S

Keywords: adaptive, Accounting, managerial, technology

Abstract:

In the subject Managerial Accounting, which forms part of the Stellenbosch University Business School MBA programme, an online platform is used to provide students with the opportunity to enhance their learning experience as part of their pre-class work. The students can determine their own proficiency level and this Learnsmart system provides questions which adapt to this self-determined proficiency level. Students can continuously access this tool to build their proficiency.

Independent research in the United States found that ‘students using LearnSmart increased their performance in the course’ (http://www.mheducation.com).

In this analysis, the aim is to examine the association between students’ final course mark and the following variables:

• SHL scores obtained before enrolling for the MBA course for numerical, verbal and inductive reasoning skills;
• time spent and performance on adaptive learning pre-work in the Managerial Accounting Learnsmart Course, and
• time spent and performance on quizzes completed based on the materials covered in the Learnsmart system.

The student results subject to analysis are the five 2017 MBA cohorts for the subject Managerial Accounting. Data of 165 registered system users is used.

The value of the analysis lies therein that there may be an association observed between the final course marks obtained, pre-existing skills level and time spent using Adaptive Learning tools.

The results of this investigation could be of value to lecturers in subjects of a quantitative nature regarding developing an early identification signal of students at risk. In addition, this will be of value to lecturers considering adding Adaptive Learning tools to their subject work.
Expanding the semantic range to enable meaningful real-world application in Chemical Engineering

Contribution type: Research-based

Author(s): Dorfling, C; Wolff, K; Akdogan, G

Keywords: Engineering education, semantic gravity, site visits

Abstract:

Legitimation Code Theory (LCT) has proven to be useful in describing and analysing the relationship between theory and practice, and has been employed in a number of Engineering studies (Wolmarans, 2016; Pott, Wolff & Goosen, 2017; Auret & Wolff, 2017). Semantic gravity can be used to illustrate teaching and learning processes that move between different levels of abstraction and context-dependency. Effective Engineering education entails moving both up and down the semantic range (i.e., moving between abstract and concrete forms of meaning) to enable students to apply concepts to contextual practices; however, undergraduate students seldom engage at the strongest level of semantic gravity. This study investigated the contextualisation of mineral processing theory (within the broader Chemical Engineering programme) through industrial site visits.

Final-year students in the BEng (Chemical) programme with a research project in mineral processing were given the opportunity to participate in a voluntary field trip to visit mineral processing sites. Written surveys were completed by participants prior to and directly after the field trip; the data were used to evaluate the impact of the site visits on their engagement with and understanding of material taught in undergraduate modules. The results showed that participants could relate more easily to taught material, had a better appreciation for the relevance of the taught material to industrial applications, and showed a better understanding of the relationship between different modules and problem-solving. These results suggest that site visits are an effective way of expanding the semantic range to stronger levels of semantic gravity, which reinforces theoretical concepts.
Title: Experiential learning for medical students as responsive service delivery: Facilitating access to health care and rehabilitation services for persons with disability

Contribution type: Practice-based

Author(s): Van Zyl, M

Keywords: experiential learning, inter-professional collaboration, continuity of care, community integration

Abstract:

Persons with disability struggle to access high quality responsive healthcare due to limited knowledge, skills and attitudes of healthcare professionals and ineffective health promotion and disease prevention at various levels of care. For this reason, rehabilitation principles have been integrated into a clinical curriculum between the divisions of Family Medicine, Public Health and Rehabilitation. Students are placed in primary health care settings and holistically assess, manage and present patients in collaboration with the available team. Integral to this process are contextual visits in the patient’s community. Students use the International Classification of Functioning and Disability (ICF) as a person-centred, inter-professional collaboration assessment tool in order to develop holistic and contextually relevant management plans, across the various levels of healthcare. This information is shared with the health care providers at their clinical placements in the urban or rural districts and facilitates continuity of care.

Evidence of the value of medical undergraduate students to patient care and the health system, the impact of medical students on rural GP preceptors, and global perspectives on community-based education has been collected internationally. We have found that authentic learning environments not only create opportunities for experiential learning but also enable students to facilitate continuity of care and community integration in collaboration with the inter-professional team. Students can bring the patients' experience of health conditions and the effect of their contextual factors on health back to healthcare facilities, thus influencing the relevance of care plans and assisting healthcare facilities to become more responsive to patients’ needs.
Title: Exploring the educational interventions to acquire the various dimensions of patient-centredness in undergraduate medical curricula: A scoping review

Contribution type: Research-based

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

Keywords: graduate attributes, teaching and learning, curriculum

Abstract:

Patient-centredness has been identified by most medical schools worldwide as a desired core graduate competence. Patient-centredness positions the patient at the centre of the consultation and, therefore, focuses on the patient instead of the disease. The concept of patient-centredness is multifaceted and there is no consensus on the definition thereof. This uncertainty has, however, led to various educational approaches and interventions in medical curricula. The choice and development of these approaches and interventions that can enhance or sustain the various dimensions of patient-centredness is a challenge for undergraduate medical curriculum developers (Fernando & Consedine, 2014).

The purpose of this study was to build on a study by Archer (2016) where numerous gaps in the teaching and learning of patient-centredness of undergraduate medical students at the FMHS, Stellenbosch University, was identified. This scoping review had the aim to determine how the various dimensions of patient-centredness could be acquired in undergraduate medical curricula.

Methodology

This study followed Arskey and O'Malley’s (2005) scoping review methodology. PDF’s were collected, searched and analysed and relevant information was extracted and displayed on an Excel spreadsheet.

Results

Information on authorship, population, the focus of patient-centredness and interventions was documented.

Conclusion

A variety of educational methods and interventions to achieve the various dimensions of patient-centredness were identified. Some of these relevant findings would be significant to incorporate in the undergraduate medical curriculum at SU and potentially even as graduate attributes in other curricula.
Facilitating transformation in education: A multi-dimensional approach

Practice-based

Meyer Adams, M; Grobbelaar, W

transformation, Thuthuka Bursary Fund, Chartered Accountancy, Social Capital Theory, evaluation

Abstract:

Promoting transformation is a key educational objective in Higher Education in South Africa. Achieving this objective needs to be approached in an expedient manner while being grounded in a sound theoretical context. The Stellenbosch University Thuthuka Programme was designed and implemented in the School of Accountancy in 2007 as a transformation initiative, funded by the South African Institution of Chartered Accountancy. The programme was developed using the national Thuthuka Bursary Fund model and knowledge of the context of the Accountancy profession and training model. It lacked an underlying theoretical framework, however. The 10-year anniversary of the programme created an opportunity to reflect on and evaluate it against an existing theoretical framework. The purpose of this study is to evaluate the programme and provide feedback as well as to highlight areas for improvement and successes to create a programme that can produce a well-rounded professional.

Social Capital Theory was selected as the most appropriate model against which to evaluate the programme because the central principle of the programme is to develop students’ social capital through a holistic, multi-dimensional support structure. Using this model as a benchmark, the various components of the programme were evaluated by means of a desktop review.

Findings revealed valuable feedback about the programme’s strengths and weaknesses. The findings highlight the importance of certain components of the programme that can be replicated by other education transformation initiatives (e.g., Ikusasa Student Financial Aid Programme being piloted nationally) and components which should be avoided.
Flipping classroom frustrations with ease

Title: Flipping classroom frustrations with ease

Contribution type: Practice-based

Author(s): Stander, J

Keywords: problem-based learning, threshold concepts, flipped classroom

Abstract:

The Applied Physiotherapy 373 module focusses on student-centred learning and aims to integrate threshold concepts taught in the first two years of the Physiotherapy programme within a clinical presentation of a fictitious patient. Neve et al (2016) and Meyer and Land (2003) emphasised the importance of students mastering threshold concepts, ensuring their understanding and application of knowledge in a clinical setting. Due to the students not preparing for practical sessions, time is wasted revising threshold concepts which could be used to effectively reach the outcomes of the session.

This causes great frustration for the facilitator as well as the students who are better prepared versus the students who struggle or come unprepared. By applying a flipped classroom approach to the practical session of a case, the focus shifts from didactic teaching to active student engagement in their learning opportunity. Utilising Learning Designer (http://learningdesigner.org/index.php), the learning activities and assessment were aligned, ensuring the time allocation reflected a problem-based learning activity with active student engagement. The successful completion of a podcast, covering some of the important threshold concepts and a subsequent quiz, gave students access to the practical session. After practical techniques were revised, pre-assigned groups presented and demonstrated a technique. Students reflected on their own learning of previously covered techniques and demonstrated their proficiency in said techniques as part of peer-to-peer learning.

Survey results indicated the students enjoyed the flipped classroom approach and found it helpful in their learning experience by understanding concepts rather than only knowing terms.
Title: Fostering self-regulated learning: Reflecting on a decade of challenges and achievements

Contribution type: Practice-based

Author(s): Erasmus, P

Keywords: self-regulated learning, student success

Abstract:

Financial management (classified as one of the top ten scarce skills in South Africa) requires proficiency in various quantitative and qualitative management activities. Historically, promoting student success in this subject proved challenging and lecturers were often faced with low levels of student motivation, poor class attendance, relatively low pass rates and overall negative attitudes towards the subject.

Self-regulated learning (SRL) refers to active processes students develop to monitor, regulate and control their cognition, motivation, emotions and behaviour to achieve their personal goals within the context of their learning environment. Over the past decade, various initiatives were implemented in two third-year Financial Management modules to contribute towards a learning environment that would support SRL practices amongst students. Specific focus was placed on addressing some of the challenges that limit SRL such as poor task understanding, vague goals and plans, weak learning strategies, the lack of monitoring and inaccurate self-evaluation, and motivational issues. To assist students to overcome these challenges, the content, structure, assessment methods and academic support provided were re-evaluated and continuously adjusted.

Adjustments included a complete reorganisation of modules’ structure and content; the development of clear learning outcomes and aligning assessment with these outcomes; incorporating formative and summative self-evaluation opportunities that also provide detailed feedback to students, and improving student motivation by illustrating the importance and relevance of module content by incorporating real-world examples. These initiatives contributed to improved student success, including an increase in pass rates, average student performance, and positive feedback on modules.
Title: Gamification of Mathematics 186 lectures

Contribution type: Practice-based

Author(s): Masuret, J; Rewitzky, I

Keywords: gamification, student motivation, student engagement

Abstract:
A report by Bridgeland et al. (2006) revealed that low levels of student motivation and content engagement are some of the challenges the American educational system are facing. This report showed that 47% of students who drop-out of high school said that classes were not interesting and 69% provided ‘not motivated or inspired to work hard’ as a reason. From experience, this lack of motivation and engagement is not limited to secondary level, but extends onto tertiary study.

Successful games have mastered the ability to keep players motivated and engage with content over extended periods of time. The application of game design elements in a non-game context, defined by Deterding et al. (2011) as gamification, has increased rapidly in the last decade. With the potential to modify a user’s behaviour to attain desired outcomes, gamification in higher education ‘has drawn the attention of educators due to the possibility of making learning more motivating and engaging’ (Ortiz et al., 2016).

Motivated by positive research findings (Hamari et al. (2016), Ortiz et al. (2016)) on gamification, this project will apply game elements to Mathematics 186 lectures over a period of 7 weeks to a group of 80 diverse students. The anticipated impact of the project includes the following: (i) increase engagement with mathematical content, (ii) increase students’ motivational levels, and (iii) increase classroom interactivity. Students will be asked to complete a survey at the end of the project to determine the extent to which the objectives have been met.

References
Title: Generic skills in the Inter-Professional Phase of the curriculum: How do students experience it?

Contribution type: Research-based

Author(s): Louw, A

Keywords: curriculum evaluation, generic skills, formative research

Abstract:

In response to the demand of providing a curriculum that addresses the scientific as well as the generic skills students need, the FMHS implemented such a curriculum. A formative curriculum evaluation research process after implementation was completed in 2011. Another research project, which specifically focused on the generic skills education of the curriculum, followed four years later.

The evaluation process focused on the Inter-Professional Phase. We followed a qualitative research approach with data collected by means of focus groups, in-depth interviews and textual module evaluation documents.

The expectations students have when they arrive at university play an enormous role in their initial motivation to study in the Health professions. These expectations are not always met, but have a major influence on students’ perceptions about the curriculum. Students only realise its importance in later years. They regard many aspects of the curriculum as pointless and some aspects even cause a degree of negativity amongst students. Fortunately, students regard many other aspects as important and necessary to be included in the Inter-Professional Phase. A major finding was that the embedding and teaching of generic skills in a Health Sciences curriculum depend much on the way in which these skills are contextualised, and that the role university teachers play is very important in terms of reliability and motivation.

The results from this study can change the way in which faculty plans to incorporate the crucial generic skills students need into the curriculum in future.
Title: High-Impact Practices: Strengthening the peer-mentor programme at Stellenbosch University

Contribution type: Practice-based

Author(s): Petersen, J

Keywords: peer-mentor, HIPs, co-curriculum, student engagement, building community

Abstract:

Research shows that High-Impact Educational Practices, henceforth known as HIPs, contribute significantly to students' engagement, learning and retention in higher education (Kuh, 2008; Finley & McNair, 2013; Finley & Kuh, 2016). HIPs are a collection of active intentional learning opportunities, occurring throughout the undergraduate experience in the curricular and co-curricular space, which add to students’ cumulative learning (Dean, 2015:27). This includes first-year seminars, learning communities, writing courses, diversity learning and undergraduate research (Kuh, 2008). In addition, Suskie proposes a list of quality dimensions for particular out-of-class experiences that qualify as HIPs, namely focus, relevance, community, evidence, and betterment (2015:7). Despite the importance of the HIPs in student development, few curriculum developers consider the construction of quality HIPs in the co-curricular space.

This paper introduces a novel architecture that seeks to strengthen the Stellenbosch University peer-mentor programme, organising it in accordance with the provisions set forth by the Council for the Advancement of Standards within the Higher Education (CAS), as well as adhering to Suskie’s prerequisites for a quality co-curricular experience.

The revised peer-mentor programme design is educationally purposeful and aimed at achieving shared learning outcomes, aligning it to the institutional vision and values. Selected senior students receive training that will prepare them to welcome and support first-year students with their adjustment and transition into university life – creating an environment where they experience a sense of belonging. The main purpose of the programme is building caring communities that promotes student engagement and measures its impact.
Title: How flipping the class nudges towards student-centred learning in a Macroeconomics course

Contribution type: Practice-based

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

Keywords: flipped classroom, blended learning, nudging

Abstract:

The flipped classroom, as a student-centred learning approach to teaching, has been increasingly implemented across disciplines over the last decade and its positive outcomes have been researched and reported. The availability of technology enables the flipping of classrooms and nudges students towards student-centred learning without compromising subject matter rigour. This resulting change in students’ learning behaviour leads them towards a lifelong learning growth mindset, where graduate attributes are also developed, rather than the mere acquisition of knowledge.

Redesigning a teaching approach from traditional to student-centred implies a deliberate intervention to alter the behaviour of students. Nudge theory (Thaler and Sunstein, 2008) provides the concepts for thinking about how designed choices for people encourage them towards positive behavioural changes. The question we consider is whether student behaviour is affected and altered by flipping the classroom.

Drawing on nudge theory we examined the behavioural change of the flipped 2016 first-year Macroeconomics class. The sample size was the 528 students, out of 2066 enrolled students, who had joined the flipped class project. We compared students from the traditional and flipped classrooms with similar characteristics in order to systematically review and visualise the efficacy of nudges towards student-centred learning during the course. Controlling for socio-economic student characteristics, we made predictive inferences on students’ assessment results in the potential-outcome framework. We show that nudging towards student-centred learning in the flipped class model is indeed a valuable tool for changing students’ learning behaviour, enabling them to develop lifelong learning growth mindsets.
Title: Implementation of a unit conversion and estimation competency test for first-year Engineering students

Contribution type: Practice-based

Author(s): Tadie, M; Pott, R; Wolff, K; Goosen, N; Van Wyk, P

Keywords: Engineering competencies, Legitimation Code Theory

Abstract:

This project examines two separate, interconnected Engineering competencies: firstly, the mastery of interchanging between different units systems (unit conversions), and secondly, the ability to make judgements and estimations based on the physical meaning of quantities. These competencies are critical for all Engineering students. It is believed that the sociological framework of ‘Legitimation Code Theory’ (LCT), in particular the ‘Epistemic Relations plane’, may shed some light on the way students interact with these skills.

Following a diagnostic quiz given to 2nd- and 3rd-year students, in which they showed poor performance in unit conversions and estimations, a ‘competency test’ was introduced into the 1st-year Engineering Chemistry 123 module. This mirrors research conducted by Professors Case and Fraser at the University of Cape Town. The objectives of this test were to assess the unit conversions and estimations competencies of students and, through multiple attempts, reinforce knowledge of the principles.

Students wrote a randomised online quiz and needed to achieve a competency mark of 83%. Trends in the students’ performance were positive, with the pass rate increasing from 21% in the first round to 58% in the second round, and 83% overall. Higher performance was also observed for conversions as compared to estimations. Through the lens of LCT, the conceptual shifts required by the students can be observed and, in particular, there exists a gap between ‘Doctrinal’ and ‘Situational’ Epistemic Relations. This project highlights both the usefulness of a ‘competency test’ to drive learning and LCT as an analytical framework.
Higher Education in SA, and Stellenbosch University in particular, faces complex issues, including calls to decolonise institutions and curricula. With corruption and deep imbalances in our society seeming to intensify daily, the need to instill critical citizenship in our graduates is increasingly important. Finding ways to acknowledge the dis-ease of recent history and academic knowledge systems is challenging, especially in science-based curricula where emotion is subordinated to rational thought and discourse. Emotion plays an important role in citizenship (Zembylas, 2009), and in learning (Ingleton, 2000). Boler (1999), in her ‘pedagogy of discomfort’, encourages uncomfortable emotional experiences in learning that are an invitation to inquiry and a call to action for students and teachers.

The challenge was how to engage Science students in questioning their values and beliefs in a productive inquiry, and whether this process led to an increased need for, or sense of, social justice. In order to explore this, Oenology (AgriSciences) students were asked to reflect on challenging social issues in the Western Cape in the context of an alternative history of the wine industry. The reflections were then analysed.

In accordance with Boler and Zembylas (2003), it was found that the discomfort experienced during the exercise created the space necessary for students to self-interrogate and confront their views of reality. This kind of exploration into emotional attachments created an opportunity for students to step away from their normal ways of seeing and become ‘ambiguous selves’, in order to be part of shaping a different future.
Abstract:

Over the past years at Stellenbosch University, the Scholarship of Teaching and Learning (SoTL) has garnered increasing levels of attention. The development of one's academic profile to include professionalism in teaching is becoming an important aspect of our portfolios as lecturers, with teaching being afforded noticeable rewards (Strategy for Teaching and Learning, 2017). It seems natural to approach the development of one's academic competency as an informed and theoretically grounded lecturer in the same manner with which one approaches a new area of research: immerse oneself in the literature, familiarise oneself with the discourse, and develop best-practice approaches. However, research shows that this acquisition model of learning is ineffective and that a practice-based approach lends itself to a more authentic and efficient means of developing one’s competence (Boud & Brew, 2017). By embedding one’s learning within the context, in our case, the spaces we share with our learners, we develop a social and reciprocating environment where learning becomes a collaborative, integrated process between lecturer and student.

The focus of this study is to reflect on the question ‘How does one effectively and efficiently improve one’s pedagogical competency as a lecturer?’ This is achieved through reviewing case studies where the design and implementation of classroom activities for 2nd-year Engineering modules served as the backdrop for the simultaneous development of the lecturer’s teaching and learning practice. The study shows how the actual implementation of educational research projects resulted in a deeper understanding of the pedagogical aspects of the projects.
Title: Learning to align... aligning to learn...

Contribution type: Practice-based

Author(s): Donald, H; Joubert, E

Keywords: rural training, student feedback, learning outcomes, student-centered, learning activities

Abstract:

Our project describes the process of structuring outcomes, activities and assessments for optimal competency development on a rural training platform.

The Introduction to Teaching in Health Professions course highlighted the value of crafting specific learning outcomes and the importance of aligning these with activities and assessments – a concept described by John Biggs as ‘constructive alignment’.

After creating an integrated set of outcomes from the three subjects our block serves to cover, we linked activities and assessments to each outcome so that activities had a clearer purpose and assessment methods were more appropriate.

In keeping the programme student-centered and relevant, student feedback is essential to determine whether they actually experience the activities and assessments in the intended manner to achieve the desired outcomes.

Student responses are gathered using a pre-block questionnaire on the first day of the block where students score their own skill relating to certain outcomes. At the end of the block, students complete a post-block questionnaire where they score their own skills relating to these same outcomes and rate the value that various activities had on achieving these outcomes.

With the data from 2016 and 2017 we aim to gain insight into the way students experience activities and attain outcomes. We will respond to this information in order to keep the programme relevant, effective and student-centered. We hope to share the process we undertook in evaluating and re-structuring our programme with colleagues, especially those who are hesitant to update the outcomes, activities and assessments for their own programmes.
Title: Learning to speak SU SoTL

Contribution type: Research-based

Author(s): Adendorff, H

Keywords: SoTL, abstract writing, abstract reviewing

Abstract:

This poster offers a provisional language of enactment to help academics translate from the ways of doing in their fields to that which is valorized in the SoTL abstract review process. It is the result of a two-year project that was aimed at uncovering the ‘rules of the game’ for SoTL abstract writing.

The project started with the premise that abstract reviewing constitutes a knowledge practice in which certain ways of doing are privileged over others. Possible prize-winner abstracts, dating back to 2009, were divided into three parts (purpose, approach and contribution), and studied with Legitimation Code Theory (LCT)’s dimensions of Specialization and Semantics. LCT was chosen because it offers a means for conceptualising the principles underpinning knowledge practices.

The results show two broad categories of SoTL abstracts: those that foreground personal, value-laden aspects of teaching and learning, and those that focus on how changes in teaching practice or curriculum could improve knowledge acquisition, performance and/or application. Meaning-making practices generally included the use of terms condensed with meaning drawn from the field of higher education studies, thus situating these abstracts within a specific Discourse. Lastly, the contributions offered by possible prize-winner abstracts were typically of weaker ‘semantic gravity’, or less context-bound, allowing for the possibility of transfer to other contexts.

The aim of this poster is to look at how these results can be translated back to practice to help academics tailor their abstracts to the ‘ways of doing’ that are valorised in the SoTL abstract review process.
The conservation of energy is often confusing to students in its subtleties, partly due to the intangible nature of energy itself, and partly due to its (apparently obscure) description in terms of mathematical equations. A theoretical language that helps to differentiate between different levels and forms of conceptual and complex meanings has emerged in the Legitimation Code Theory (LCT) dimension of Semantics. Together, the semantic gravity (SG) and semantic density (SD) continua can help to illuminate the nature of particular concepts and practices in Science education.

It is evident from observation and literature that 2nd-year Engineering students struggle with the semantics of mathematical objects and operators. Thermodynamic equations have very high semantic density (SD+), but weak semantic gravity (SG-).

Many of the abstract aspects of Thermodynamics can be understood by representing an ideal gas using Lego in three-dimensional space. The Lego Conceptual Comprehension Cube for Thermodynamics (LC3T) maintains the strong semantic density (SD+) of a mathematical equation, but greatly increases its semantic gravity (SG+), enabling students to ground their understanding of the topics.

The pedagogical potential of the LC3T was assessed through its use in teaching Thermodynamics A224. The effect on students' conceptual understanding of fundamental thermodynamic processes and mathematical operations was evaluated, and anecdotal evidence indicates that a lack of understanding originates prior to the formulation of thermodynamic equations. Student performance in follow-up courses will be observed to determine whether students have obtained and retained a strong conceptual understanding of Thermodynamics.
Title: Limitations imposed on teaching styles by subject scheduling

Contribution type: Practice-based

Author(s): Venter, M; Venter, G

Keywords: practical assessment, peer mentoring

Abstract:

Teaching the practical aspects of technical software to final-year Engineering students requires the students to build skills that are more techne than theory. Each different work case needs a different approach and there is no robust process that works in every case. What the students need, is to build experience with the software in a relatively short period of time. To do this, I need the students to engage with the software and explore its capacity on their own. The teaching style was adjusted so that a single case study is used for each activity in the week with the expectation that the students collaborate with the instructor in each contact session to make progress on the assigned task. Although the workload is reasonable for the level of the course, the students feel that the time spent on the subject was disproportionately high. Tracking of the student interaction with the on-line platform shows that, even though the course was structured to get students to interact continuously, most students left the case study to the last evening before hand-in. Even with the best intentions the ingrained behaviour of the students remains unchanged. Discussion with the students, supported by the available data, showed that, because of the subject scheduling within the faculty, studying one subject per day has been incentivised. This then becomes a practical limitation imposed by a non-academic activity.
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Title: Making ‘toxic’ waves: Expanding students’ Biology concept knowledge through semantic movement

Contribution type: Practice-based

Author(s): Mouton, M; Archer, E

Keywords: articulation gap, Legitimation Code Theory, Semantics dimension, semantic waves, cumulative knowledge-building

Abstract:
First-year (FY) curricula and the delivery thereof should assist students in the transition from their previous learning experiences to higher education, and ultimately towards lifelong learning (Kift, 2009). However, the discontinuity or so-called articulation gap between secondary and higher education has been identified as a key structural curriculum problem for first-year success in South Africa and abroad (Shay et al., 2016). A recent study, drawing on Legitimation Code Theory (LCT), has shed valuable light on this problem by revealing that the high school Biology curriculum is at a different level from the university curriculum (Kelly-Laubscher & Luckett, 2016). LCT’s Semantics dimension reveals the context dependence and meaning condensity of knowledge practices, using semantic gravity (SG) and semantic density (SD) (Maton, 2014). The high school Biology curriculum displays little movement from context-dependent, simpler meanings towards the relatively decontextualised, condensed meanings frequently encountered in FY Biology. However, our research showed that the Semantics dimension of LCT offers a valuable tool for restructuring FY Biology curricula and pedagogy to intentionally facilitate semantic waves and thereby a more gradual transition for students from high school to university Biology. This paper will report on an integrative FY Biology project, aimed intentionally at taking students’ concept knowledge through a wider SG range, and perpetually from weaker to considerably stronger SD, thus creating semantic waves. The paper reflects on how the project steered students towards creating semantic waves during their presentations, thereby contributing to cumulative knowledge-building and a more gradual transition towards FY epistemological access.

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Title: Measuring social impact in Medicine and Health Sciences

Contribution type: Research-based

Author(s): Cloete, L

Keywords: social impact, Medicine and Health Sciences, measurement, knowledge exchange, sustainable development goals

Abstract:

Background: The Social Impact Strategic Plan (2017-2022) of Stellenbosch University defines social impact as efforts that have a wider focus on how our input contributes to bringing about sustained social impact. The United Nations Sustainable Development Goals were therefore used as a guideline for exploring how the Faculty of Health Sciences could map and plan for sustainable development in curricula. Criteria for setting goals and outcomes related to the seventeen sustainable development goals are suggested.

Methodology: Two planning meetings and four workshops were held to formulate a framework for measuring social impact in the Faculty of Health Sciences.

Results: Criteria for developing measures to evaluate activities that contribute to the implementation of sustainable development in South Africa at faculty, divisional and individual levels are presented. Indicators for evaluating the outcomes of activities that are geared towards facilitating sustained improvement in the health and well-being of populations are discussed. Theoretical and conceptual models of evaluating input, process and outcomes at different levels of health and rehabilitation care delivery are needed to best merge the bibliometric impact of researchers.

Implications for practice: The training of undergraduate and postgraduate students within the Medicine and Rehabilitation professions needs to be geared towards meeting the above sustainable development goals. Implementing strategies that would assist with setting clear targets for meeting these goals may facilitate educationalists considering the alignment of the curricular goals with performance indicators that contribute towards sustained development in health and well-being as well as economic and social participation.
Title: Moving beyond the hype: The formulation and implementation of a context-specific, integrated and sustainable strategy for the integration of ICTs in teaching and learning

Contribution type: Practice-based

Author(s): Schoonwinkel, A; Van der Merwe, A

Keywords: ICTs, integrated strategy, institutional change, business models, learning technologies

Abstract:

This paper reports on an institution-specific case study at Stellenbosch University (SU). A holistic approach is taken, with the learning and teaching academic project as point of departure, and not as a technological quick fix. Building on SU’s 20-year history of the implementation of ICTs, the University devised a 6-year programme in 2013 aligned with its Institutional Intent and Strategy to make a quantum leap in terms of the use of learning technologies in all dimensions of education. Funded by the University Council, this comprehensive programme focuses on the learning technology systems, support for lecturers and students, the renewal of business systems, Wifi and network infrastructure as well as new learning spaces to benefit both on- and off-campus students. This is coupled with a comprehensive academic programme renewal strategy.

The preliminary results of the impact of the project indicate that great strides have been made in the implementation of an integrated strategy that maintains a focus on the interdependencies and synergies between the different programmes and projects. The sustainability of these initiatives remains an issue, but this integrated strategy offers exciting opportunities for exploring new knowledge markets. In conclusion, we therefore propose a conceptual framework for SU’s knowledge offering, including both the Mode 1 model (existing model where most undergraduate students are full-time residential) and the proposed Mode 2 model (an interactive online teaching and learning mode, combined with a number of blocks of face-to-face interaction with academic staff).
Title: Near-peer and video learning to enhance student engagement with geological knowledge

Contribution type: Practice-based

Author(s): Von der Heyden, B

Keywords: near-peer learning, video learning, blended learning, flipped classroom

Abstract:

This FIRLT-funded study seeks to investigate whether the current ensuing drive towards decolonising South African tertiary curricula can be effected by increasing ownership of learning and knowledge content within the student domain. Specifically, a range of near-peer learning interventions have been tested for their viability and effectiveness as mechanisms that preclude the generational gap associated with traditional lecturer-learner classroom interaction (which may be perceived as colonised learning interactions). The target class is the third-year Economic Geology (G344) cohort and the near-peer interventions include:

• undergraduate delivery of paper presentations to their classmates,

• post-graduate delivery of their research findings to undergraduate students,

• the ‘truly-flipped’ classroom approach, where students interpret and deliver slides to the lecturer, and

• a blended learning approach where video casts prepared by Honours students are used to provide ‘quasi-experiential’ knowledge to third-year students.

Qualitative and quantitative survey data will be used to evaluate the effectiveness of these interventions with regard to both the value and accessibility of the learning that could be derived by third-year Earth Science students. In addition, the benefits of the videocast assignment will be discussed in terms of Technological Pedagogical Content Knowledge development (Koehler & Mishra, 2009), and specifically, how the ‘production’ way of learning (Laurillard, 2013) helped to enhance Honours-level student engagement with geological knowledge.
Title: Online tutor training short course in Science

Contribution type: Practice-based

Author(s): Adendorff, H; Retief, L; Rewitzky, I

Keywords: online, tutor training

Abstract:

The important role tutors play in facilitating learning, and mentoring and inspiring students in tutorials and practicals, has been emphasised through student feedback and the outcomes evaluation of Teaching Development Grant initiatives in the Faculty of Science. This means the faculty faces important strategic decisions regarding ongoing effective tutor training.

In 2014 a short course was introduced to provide tutors with the opportunity to learn about and reflect on topics regarding the tutor’s role, attributes of good tutors, tutoring challenges, and learning styles. Successful completion was dependent on the submission of a portfolio including tutoring philosophy, reflection on tutoring practice, and evidence of personal growth as a tutor. Although effective, this face-to-face course was resource-intensive due to multiple sessions for accommodating the schedules of tutors and presenters. An online short course was therefore needed that was easily accessible to tutors and sustainable with minimal human resources. For the ongoing training aspect, a three-level online short course was conceptualised to reflect three levels of tutor involvement – (a) improving tutoring practice, (b) rethinking learning activities and spaces, and (c) coordinating, mentoring, and inspiring a team of tutors.

This paper focuses on the first level of this online short course. iSpring software was used as a tool to keep tutors engaged with the content, including the application of videos, embedded quizzes and simulations. Results from a feedback questionnaire indicated a resounding positive experience with regard to relevance, usefulness, and depth.
Title: Outsourcing to the experts: Industry interviews as a tool to advance knowledge of the applied aspects of Economic Geology

Contribution type: Practice-based

Author(s): Von der Heyden, B

Keywords: university-industry interface, graduate attributes, professional networking

Abstract:

A high proportion of BSc Earth Science graduates applies the theoretical knowledge gained at university level to careers in the minerals industry. The currently depressed economic status of the South African (and global) minerals industry has resulted in a 65% decrease in the number of graduate intakes into the South African mining industry between 2014 and 2016 (Minerals Education Trust Fund, 2016 statistics). In an effort to better prepare Stellenbosch University Geology majors for success in their job-searching prospects, it is imperative that they are equipped with the ability to develop professional networks, and that they develop a better understanding of the role of the geologist in the mine workplace. To these ends, the 2016 Honours-level Economic Geology (742) class was instructed to conduct interviews with industry-based geologists who have experience relevant to the mineral commodity that each student was investigating. Students’ questions focused primarily on scientific aspects related to Mine Geology, however, they were also encouraged to ask interpersonal questions related to developing careers in Geology. Enhancements in the students’ codified knowledge (e.g., understanding the role of the geologist) is attributed to the depth of knowledge accessed from the interviewees (combined working experience of approximately 155 years) and because learning took place in the affective domain and according to a structured theory of learning framework (Laurillard, 2013). The success of the intervention in a context of the professional network development is discussed in terms of knowledge and social capital transfer across the university-industry interface, and in terms of developing graduate attributes.
Title: Peer mentoring for teaching technical software

Contribution type: Practice-based

Author(s): Venter, M; Venter, G

Keywords: peer mentoring, technical software

Abstract:

Teaching technical software is typically challenging and requires learning skill sets different from those which are successful in other courses. Learning software requires interaction with software to build experience, and in many cases beyond what can be demonstrated in the contact sessions. Over the past few years we have shifted from a short practical once a week, where the students need to prepare based on the live demonstrations, to a week-long case study that is discussed in each of the contact sessions. The students are encouraged to engage with each other using an online forum (representative of good practice). The case study is open-ended and deliberately constructed such that several tiers of the problem will be experienced as students dig into the problem. These tiers range from simply learning what buttons need to be pressed to making assumptions and modeling choices. The students are required to hand in their assignments before the practical session. Each student is then required to review their peers. They need to download their peers’ software and are guided through an evaluation using a detailed rubric, supported by several student demonstrators and two lecturers. In this way the evaluation phase becomes active instead of passive and also becomes a learning activity. In this context the students are not pressurised to perform while learning and we can give them more support while they learn. We can offset the demi grading load with interaction in the practical and after hours on the forum.
Title: Progression in usage of Mathematica by undergraduates in Physics modules

Contribution type: Practice-based

Author(s): Müller-Nedebock, K; Mebwe Pachong, S; Gumede, S

Keywords: Mathematica, computer algebra systems, graphing, Physics

Abstract:
High-level software that combines algebraic manipulation, numerical solutions and graphing has replaced the simple calculator, mathematical tables, and data processing in spreadsheets. The recent acquisition by Stellenbosch University of a campus-wide license for one such package, Mathematica, makes feasible its deep integration into mainstream Physics modules. The use of Mathematica in Physics modules is not only intended to familiarise students with a modern tool, but also to improve understanding of selected Physics concepts, especially through experimentation. That computational tasks develop students' use of Physics principles has been reported by scholars (Bodin, 2012). We present an overview of a series of Mathematica-based assignments in all three mainstream Physics undergraduate years. We analyse the progression per cohort during a semester in simple quantifiable measures of proficiency in Mathematica (by counting the number of separate commands used per assignment, and the number of nested instructions per Mathematica line). We assess a degree of the use of Mathematica to interpret data, by counting the number of outputs that are used in answering interpretive questions as well as how far this went beyond the minimum required for a given assignment. The usage of Mathematica is classified into algebraic, numerical and graphing/plotting principal output types. We combine this with student feedback on whether software is being used by them beyond these assignments. This study is preliminary to future theoretical analyses.
Title: Promoting collaborative learning in large groups

Contribution type: Practice-based

Author(s): Quinot, G

Keywords: collaborative learning, team-based learning

Abstract:

This presentation is based on a design-based research project aimed at developing teaching-learning activities (including assessment) for collaborative learning in a particular LLB module of about 200 students. The aims were to develop, implement and evaluate an approach to facilitate collaborative learning that can serve as a framework for the design of collaborative learning more broadly in LLB (and potentially other) programmes. Legal education traditionally takes a highly individualistic approach to teaching and learning, which has often actively encouraged competition rather than cooperation between students. In contrast to the traditional approach, there is an increasing need to foster a collaborative perspective which provides more authentic learning environments as contemplated in the framework of transformative legal education and the new CHE LLB Qualification Standard. This need goes beyond simply getting students to work together in groups. There is a need to actively develop students’ competence to function collaboratively and to assess that competence. In this project, a teaching-learning design premised on the literature on team-based learning was implemented. The design was based both on insights from the literature and focus group interviews with final-year LLB students on their experiences of collaborative learning. The central structure of the pilot was the permanent learning group (PLG): groups of five randomly assigned students who worked together throughout the semester, often in class. The presentation reports on the design of the PLG structure, students’ reflections on the learning experience, and the ongoing attempt at a developmental evaluation of the pilot.
Title: Psycho-institutional influences on academics' engagement with learning technologies: The elephant in the room

Contribution type: Research-based

Author(s): Strydom, S

Keywords: curriculum design, technology-enhanced learning, agency, change, IPA

Abstract:

Higher education institutions are continuously under pressure to innovate and to adapt to the learning needs of 21st-century students. Amongst others, the integration of technology-enhanced learning is suggested in assisting with the enhancement of the learning experience (Jaffer, Ng’ambi & Czerniewicz, 2007), to encourage innovative practices and to support transformation (Brown, 2012). However, learning with technology remains complex and requires changes at both an individual and institutional level. In many cases, these initiatives are associated with top-down goals of management or the attempt to upskill academics without attention being paid to the human aspects associated with such change (Salmon, 2005).

The study explores the aspects influencing academics’ choice to engage with technology-enhanced learning practices in their curricula, or not. Framed against an interpretative research paradigm, a purposive sample of twenty academics representing five faculties at Stellenbosch University participated in semi-structured interviews which were analysed by means of interpretative phenomenological analysis (IPA).

Findings suggest that institutional responsibilities related to agents and the acknowledgement of individual differences when designing professional development opportunities and training all contribute to the choice to engage with technology-enhanced learning. Approaches towards knowledge acquisition and the role of predisposition furthermore add to the multifaceted nature of change within a technology-rich paradigm and highlights the interplay between institution, agents and knowledge.

The study contributes to the current dearth of research interrogating academics’ involvement with technology-enhanced learning at faculty level and attempts to assist in a better understanding of the complexities associated with curriculum design in such a paradigm.
Reflections about Somali parents’ educational support of their primary school children: Implications for teachers

Title: Reflections about Somali parents’ educational support of their primary school children: Implications for teachers

Contribution type: Research-based

Author(s): Peters, L; Daniels, D

Keywords: educational support, parental involvement, immigrant parents

Abstract:

With the history of inequality and segregation, it is expected of South African teachers to be sensitised about learner ethnicity, cultural background and educational experience (Walton, 2012). Though teacher-training programmes are spaces where learners gain theoretical knowledge on how to advance inclusive goals, they present limited practical opportunities for trainee teachers to experience the challenges of the multilingual and multicultural classroom prior to qualifying. Newly qualified teachers could be overwhelmed by the challenges that heterogeneous learner populations present to education. Teachers tend to link the classroom problems and the poor educational performance of immigrant learners to a lack of parent involvement in their children’s education (Harris, 1985, in Lareau, 2000). However, teachers seldom know the parents or the home contexts of their learners. This could lead teachers to make uninformed assumptions about such parents’ educational investment. In this study we asked the question, ‘How do immigrant Somali parents contribute to their children’s educational success?’ Our theoretical framework is informed by Yosso’s (2005) Community Cultural Wealth theory and Bourdieu’s cultural and social capital. We make use of data from Peters’ M Ed study (2014) on how five Somali parents understand educational support. We argue that, despite their educational, cultural and linguistic challenges, the parents accumulated cultural and social capital that benefitted their children’s education. These findings have implications for how teachers engage with immigrant parents. It could inform teacher-education programmes on the importance of the home as pedagogical space, and the parent as educational collaborator with the teacher.
Title: Reflections of an action research approach on overcoming distance in blended teaching and learning

Contribution type: Practice-based

Author(s): Dreyer, L

Keywords: blended teaching and learning, teacher training, online engagement, ILD Framework, computer technologies

Abstract:

The Faculty of Education have gone through a re-curriculuation process in the B.Ed. Honours programme. The new programme is presented in a blended teaching and learning model which allows for exploring ways of interfacing traditional pedagogies with computer technologies (CT). CT has transformed the sources that provide evidence of student engagement and learning and allow for learning and interaction beyond the classroom. With a blended model, students are situated physically across the country and abroad. Subsequently, teachers need to adapt learning activities to enhance social constructivist learning where students can co-construct knowledge and understanding while not in the same room.

Against this background, students were introduced to online engagement as ‘substitute’ for classroom interactions. This was done through a FORUM as an activity on the SUNLearn platform. The ILD Framework of Dabbagh & Bannan-Ritland (2005) and Anderson (2004) was used as an action research process to provide students with meaningful learning opportunities.

Reflections of lecturers’ and students’ experiences revealed some challenges in navigating the ‘new’ way of engagement. The students too displayed diverse levels of ability and skills needed. The exploration of this particular CT afforded students the opportunity to engage through constructive comments to enhance authentic learning.

Information technology has become an integral part of society and therefore also the teaching and learning environment. With a blended teaching and learning model, where both students and lecturers have to communicate in virtual space for a large part of the programme, we have to find innovative ways to keep the conversation alive.
Title: Reimagining knowledge exchange at SU and beyond

Contribution type: Research-based

Author(s): De Klerk, M; Cattell, K; Fourie-Malherbe, M; Muller, A; Costandius, E

Keywords: knowledge exchange, knowledge intersections, lifelong learning, FeesMustFall

Abstract:

There is a growing need for universities to critically reflect on how knowledge is constructed and shared in order to benefit those inside and outside the institution. The demand for more fluid and innovative structures for learning has, in recent years, caused a critical disruption of the higher education sector (Bawa, 2017). This has generated a need for SU to reimagine the boundaries between the curriculum, our graduate attributes, and our learning community.

A number of FIRLT-funded project teams will be engaging in reimagining democratic models for knowledge exchange. These projects, which are still in their initial phases, intend using multimedia technology to design dialogic spaces, i.e. spaces where participants can engage in critical and reflective dialogue (Rule, 2004). The Knowledge Intersections project will involve recording a selection of Faculty of Arts and Social Sciences lectures, to be distributed on campus for free via digital broadcasts. Sharing this objective to design accessible learning opportunities, the Lifelong Learning Initiative Project proposes an online ‘Profcast’ channel to enable a wider stakeholder network to engage with interdisciplinary perspectives on complex issues. Collaboration between these two projects and initiatives with similar intended outcomes, e.g., a project investigating the Implications of the ‘FeesMustFall’ movement for teaching and learning at SU, specifically lecturers’ perspectives on knowledge exchange post-FeesMustFall, has been initiated. These three projects aim at developing models for democratic knowledge exchange that would serve SU’s wider learning community.
Title: Science students’ conceptions of academic support

Contribution type: Research-based

Author(s): Adendorff, H; Retief, L; Rewitzky, I

Keywords: student support, tutorials, IQA

Abstract:

The Science Faculty invests substantial resources into planning and conducting tutorials. However, there seems to be a perception that traditional tutorials are not as effective as lecturers and tutors may expect. Central to investigating this, would be exploring how the various groups of participants understand the idea of academic support.

This paper reports on a pilot study, forming part of a larger project, aimed at uncovering how the phenomenon of learning support is conceptualised by students, lecturers and tutors in Science. The pilot study was conducted with a group of Chemistry EDP students enrolled for the Engineering degree. Interactive Qualitative Analysis (IQA), a phenomenological approach useful for examining how phenomena are socially constructed, was used. IQA was selected because it entrusts the initial interpretation of data to the participants, thus minimising researcher bias.

The pilot study suggests that the expectations of lecturers act as the main driver for ideas on academic support for this group of EDP students. These ideas included concepts such as issues, expectations, emotional response, and career choice. In the paper, we will show how all these concepts are related and how the findings helped us to understand this group’s experience of academic support.

It is hoped that the larger study will help to: (1) inform the design of academic support initiatives; (2) inform how the value of various forms of academic support is communicated to students; and (3) guide the design of a general questionnaire for the early identification of the strengths and shortcomings of academic support in particular modules/programmes.
Title: Semantic gravity analysis of first-year Physics assessments

Contribution type: Practice-based

Author(s): Steenkamp, C; Müller-Nedebock, K; Bosman, G; Kriel, H

Keywords: semantic gravity, assessments, first years, Physics

Abstract:
The success rate of our mainstream Physics 1st-year students and the degree to which they are prepared for subsequent study are high priorities and remain challenging. The first semester is particularly problematic, not only due to the mathematical skills that are required in a calculus-based Physics module, but also due to the students struggling to adapt to principle-based learning. The best strategy for 1st-year Physics is to know (memorise) the few basic principles and then apply the principles from scratch to applications. Why do students not know the principles and try to memorise the applications?

This presentation focuses on an analysis of test and exam papers of Physics 114 and 144 from the past 5 years, using the concept of semantic gravity, an analytical tool to determine levels of conceptual and contextual meaning, from Legitimation Code Theory [Maton, 2009]. During 2017 we combined real-time analysis of the test and exam papers with interactive internal moderation sessions. The process was empowering: for the first time we as lecturers had a language to talk about the level of questions in a paper. We were able to ensure that each paper had the desired fractions of the different semantic gravity levels. We focused on the essentials by explicitly assessing basic principles and communicating this clearly to the students. We have grown in sensitivity towards the students’ diverse backgrounds. Applications to problems during tutorials and just-in-time Mathematics teaching were used to develop the students’ problem-solving skills. Preliminary results are encouraging.
Title: Should faculty development include how to foster students’ agentic capability for learning?

Contribution type: Research-based

Author(s): Blitz, J; De Villiers, M; Van Schalkwyk, S

Keywords: faculty development, student agency, workplace-based learning

Abstract:

As part of a larger project on reviewing faculty development for clinical trainers, we thought that it would be useful to ask senior medical students for their perspectives on how learning during clinical training time could be optimised.

This qualitative study was conducted using three focus group discussions with 23 medical students in the final two months of study before qualifying. Wenger’s work with social learning theory to understand communities of practice seemed an appropriate frame for this research. Using an interpretive approach, the transcripts were coded looking for underlying meanings and then grouped into themes.

Students saw clinical rotations as having the potential for them to apply their knowledge and test their procedural abilities in the environment where their professional practice and identity will develop. However, students experienced the clinical environment as not supportive of clinical learning, largely due to the pressure of patient care and clinicians not always being interested in teaching.

Students appreciated that learning required them to move out of their ‘comfort zone’, but seemed to persist in the idea of being recipients of teaching rather than becoming directors of their own learning. They may need help in developing skills to negotiate their participation in the clinical environment.

Faculty development initiatives aim to strengthen clinicians’ culture of teaching. Billett’s understanding of workplace learning might suggest that students would benefit from understanding their personal epistemology and in developing their agentic capability to optimise their learning in the clinical environment. Where should responsibility for this lie?
Extensive use of mobile digital media has become a defining feature of today’s university students. Recent studies indicate that high levels of media multitasking are potentially detrimental to students’ learning and academic performance. While a substantial body of quantitative evidence supports this proposition, there exists a lack of qualitative studies about the beliefs and norms underlying this phenomenon.

Against this backdrop, our study adopted a focus-group methodology to investigate students’ beliefs about media use in academic contexts, the triggers underlying instances of media use, and the behavioural patterns which ensue. Five focus groups were conducted, involving a total of 30 undergraduate students. Discussions within the focus groups were guided by prominent theories of human behaviour as well as the findings of previous research in this domain.

The study found that students reason about the implications of media use prior to instances of use. In the face of increasingly irresistible media engagement, other activities like lectures are perceived as tedious, boring and dull. This perception serves to justify indulging in habitual, off-task media use rather than engaging with academic content. Interestingly, when conducting group-work assignments, students perceive media use as disrespectful. Off-task media use during lectures, however, is seen as acceptable behaviour, particularly in large classes.

It is our view, firstly, that students generally fail to moderate their use of increasingly entertaining and accessible media in academic contexts and, secondly, that educators and institutions should critically consider the implications of media policies and infrastructure for attentional control and learning.
Social justice in education: How the Disability Unit at Stellenbosch University works towards achieving social justice for students with disabilities

Contribution type: Practice-based

Author(s): Mavundla, S; Willems, M

Keywords: human rights, students, disabilities, social model of disability, Universal Design for Learning

Abstract:

The rights of people with disabilities and their access to environments and services have been an important matter for discussion, leading to the UN Convention on Rights of People with Disabilities (2007) which seeks to ‘promote, protect and ensure the full and equal enjoyment of all human rights and fundamental freedom’. Nationally, the government’s White Paper on the Rights of People with Disabilities (2016) formalises the inclusion of people with disabilities.

Within education, White Paper 6 (2001) introduces inclusion in Basic and Higher Education and, more recently, the White Paper for Post-School Education and Training (2013) in the post-school sector. A disability presents a student with a barrier to accessing education. Without support, students with disabilities are unable to take part in teaching and learning activities. Social justice includes redress with reference to disability as well. Studies, such as Fotim (2011), show that disability units/disability support offices/student support offices work towards promoting social justice in Higher Education Institutions by supporting students with disabilities. Proposed changes to the disability policy introduce a shift in thinking from narrow categories of disabilities to a more universal approach, creating unity, a sense of belonging hereby fostering social justice.

This presentation will discuss the critical role played by the SU Disability Unit in ensuring social justice in education for students with disabilities. It does this by expanding on how the social model of disability frames diversities in abilities. It also shows how embracing the model positively impacts on teaching and learning through Universal Design for Learning principles which acknowledge neurological differences.
Title: Some reflections on measuring impact of Academic Literacies modules

Contribution type: Practice-based

Author(s): Coetsee, Y

Keywords: embedded, ideological, impact, autonomous, measuring

Abstract:

In its quest to enhance teaching excellence, SU has made many recommendations during the past decade. This paper investigates some ways of measuring the impact of Academic Literacies (AL) as a starting point towards ascertaining whether real learning and teaching have taken place. But how does one measure the impact of something this elusive?

In many fields colleagues can relatively easily demonstrate with pre-/post-tests whether students have mastered the required knowledge or skills. However, the AL construct itself is contested. Furthermore, to be able to measure the impact of an AL intervention one should first measure AL at entrance level and then after the intervention. In the literature, differences between autonomous and ideological approaches to AL (Street, 1995) still cause divergent ways of measuring either missing writing skills (the so-called deficit model) or contributions students make towards communicating their learning.

In the past, matric results, tests of academic literacy levels and national benchmark tests were sometimes used to predict and shown to correlate with success at university (Van Dyk & Weideman, 2004). However, it is challenging to show alignment of these generic tests with faculty expectations, student needs, facilitation in class and assessment of skills while there are only superficial connections with specific subject fields.

This paper makes a contribution towards the conversation about the impact embedded AL modules (Jacobs, 2005) have on student success, as ultimately student success is an essential measure of teaching quality.
Title: Student feedback: An intersection or a cross-road for the professional learning of lecturers at a research-led university?

Contribution type: Research-based

Author(s): Petersen, M; Bitzer, E; Van Schalkwyk, S

Keywords: student feedback, professional learning, research-led university, performativity

Abstract:

Student feedback is widely accepted as a useful source of information about the quality of teaching. However, a review of the literature revealed a shortage of systematic research about how student feedback influences university teachers’ teaching practices. A similar gap in knowledge was identified at Stellenbosch University. This study therefore set out to explore how university teachers at this institution experienced the role of student feedback in their teaching.

A case-study research design was followed, with the potential relationship between student feedback and university teaching practice at a research-led university constituting the unit of analysis. Qualitative data was generated by way of semi-structured interviews with 16 purposely selected university teachers. Activity theory was used as analytical framework to interrogate the data.

The findings of the study indicate that:

• the research-led context at Stellenbosch University plays a significant role in how university teachers experience student feedback;

• perceptions that research is more valued than teaching limits the optimal use of student feedback for the purpose of improving teaching;

• the potential role of student feedback in university teaching practice is influenced by the performance appraisal system;

• mid-level university management exerts significant influence on whether university teachers would use student feedback for professional learning and the enhancement of their teaching.

Based on its findings, this study is considered to have made a contribution to the body of knowledge regarding the contextual and relational nature of student feedback, particularly within a research-led university context.
Title: Student teachers’ mathematical knowledge for teaching as evident in their interactive storybooks for young learners

Contribution type: Practice-based

Author(s): Wessels, H

Keywords: interactive digital storybooks, mathematical thinking, contextualised learning, mathematical knowledge for teaching

Abstract:

The development of Mathematics concepts and mathematical reasoning in young children can be supported by the use of literature (Casey, Erkut, Ceder & Mercer-Young, 2008). Using children’s literature as context for mathematical learning builds on three theoretical perspectives – a constructivist approach to learning, contextualised learning and learning by interaction (Van den Heuvel-Panhuizen & Van den Boogaardt, 2008). Situating Mathematics questions within the meaningful context of a story promotes cognitive and emotional engagement of learners, and can contribute to positive mathematical attitudes.

For the above reasons, an assignment was included in a Mathematics education module in which student teachers had to create storybooks with Mathematics questions to develop number concepts and mathematical thinking. Ten student teachers volunteered to create interactive digital storybooks on tablets, a task on the fourth level of the SAMR-model of technology integration (Puentedura, 2011), fostering students’ higher order skills such as creativity and synthesis, enabling online sharing with national and international feedback.

The storybook assignment revealed to the lecturer strengths and gaps in student teachers’ mathematical knowledge for teaching.

References

Title: Teaching concepts through local field data collection

Contribution type: Practice-based

Author(s): Fietz, S; Lazarus, L

Keywords: field work, undergraduates, Science, publication

Abstract:

Academics often try to introduce real-world scenarios into the curriculum in order to allow the students to experience what their selected profession might entail. Often enough those ‘real-world scenarios’ are actually published case studies from outside South Africa. However, field work in local areas can improve the students’ interest while introducing them to professional equipment. In this presentation, we present an example of an undergraduate field trip to the Rooi Els estuary in the Western Cape. We used the data sets collected by students during the field trip for classroom discussions on environmental issues. In addition to permitting practical examples and classroom discussions, the field trip data now extends over five years and represents a publishable compilation. This illustrates that it is possible for lecturers to combine mechanisms to improve student learning with scholarly research which can be published.
Title: Teaching policy literacy: A case study from the field of Disability and Rehabilitation Studies

Contribution type: Practice-based

Author(s): Ohajunwa, C; Ned, L; Luger, R; Geiger, M

Keywords: policy literacy, authentic learning, Disability and Rehabilitation Studies

Abstract:

Background, context, purpose: Policy divide speaks to the misalignment between policy formation and implementation. Practitioners in South Africa find that, though well-written, policies do not represent the reality on the ground and implementation is problematic.

Gaining policy literacy through understanding and interpreting policy intentions in the context of implementation is crucial to service delivery, especially within the health and rehabilitation sector. The purpose of this paper is to describe the implementation of a module in applied policy analysis.

Links to similar work: Practice-based insights in teaching policy literacy across disciplines are scarce, with even fewer in Disability and Rehabilitation Studies.

Focus: Contextualisation of unfamiliar policy content and principles to help make meaning of previously elusive content in students' own work environments.

Work done: A multi-disciplinary pilot cohort of 11 students participating in a Postgraduate Diploma Programme (in Disability and Rehabilitation Studies) was supported through a scaffolded process to understand policy in context. Influenced by a social constructivist approach, the teaching and learning process consistently integrated student experiences and current understanding of policy into their learning activities. The students’ own contexts were utilised as a reflective learning tool to aid their understanding of policy.

Conclusions: Locally grounding existing policies, making them more accessible and realistic to the students’ practice, contributed to their development of policy literacy.

Implications: Knowledge of, engagement with and functional use of relevant policies can be facilitated in doable, authentic learning steps.

Value to others: Doable strategies to develop policy literacy may be transferable to other programmes.
Stellenbosch University’s Writing Lab helps postgraduate students by offering writing skills workshops to them. Workshop presenters follow writing centre pedagogy of peer-to-peer learning and meeting every writer at her/his level (Daniels & Richards, 2011). Presenters also combine text-oriented, reader-oriented, and writer-oriented approaches (Hyland, 2002).

Each workshop is customised to the needs of the specific group. Workshops are therefore presented to specific departments, for example, Mechanical and Mechatronic Engineering, and Industrial Engineering. The broader topics remain the same, but the content is adapted per department. Students might come from the same faculty, but they approach their texts and writing differently, depending on the department in which they reside. For example, although theses from Mechatronic Engineering and Industrial Engineering look the same, the way the writers produce their theses differs. The presenters therefore have to be flexible in how they approach writing and the writers. Writing centre pedagogy and Hyland’s three approaches facilitate presenters’ flexibility.

In this presentation, I aim to reflect on how presenters use Hyland’s three approaches, within writing centre pedagogy, to help students not only improve their texts but also develop their writing skills and academic voices. The workshops thus help students negotiate their positions within institutional culture and help them become part of the discourse community.

Reflecting on how and why this pedagogy and these approaches work well in the workshops can assist anyone tasked with providing guidance to academic writers to refine the writing support they offer.
Title: The Ford Kuga case study: Using real life to simulate real life

Contribution type: Practice-based

Author(s): Visser, A; Steenkamp, L

Keywords: case study teaching, simulations

Abstract:

The Chartered Institute of Management Accounting (CIMA) attempts to simulate a real-life situation during their professional exams. They do this by way of making extensive documentation available before the examinations, and simulating a work-based environment during the examination. Preparing students for examinations such as these sometimes appears prohibitively labour-intensive.

This practice-based paper describes how a real-world situation was used to prepare a case study with relatively low-tech tools. The recent Ford Kuga saga was used as background. Students were provided with real news reports and could request additional information from a ‘simulated’ representative of the Ford company. Based on this information, students had to discuss a number of issues during an interactive session.

Directly after the interactive discussion, students completed an anonymous survey on their experience. The results indicated that it was overwhelmingly positively received and that students had learned both academic and other skills that could aid them in answering exam papers as well as in the workplace.

Based on the feedback, the case study might be extended to include more information and to open up other avenues for syllabus-related discussions.

While case study teaching (e.g., Harvard case studies) and simulations (e.g., in medicine) are not new in academia, this paper adds value by describing a number of ideas that could be useful to colleagues in similar disciplines.
Twenty-three years into democracy, South African universities still face the challenge of high student drop-out and low graduation rates. The most cited reason for this is the mismatch, also known as the ‘articulation gap’, between exit level achievement at high school and the demands of successful engagement with university education (CHE 2013). In order to measure and ultimately respond to this gap, most universities have, in addition to Grade 12 results, used assessments of academic readiness such as those developed by the National Benchmark Tests Project (NBTP) and the Inter-institutional Centre for Language Development and Assessment (ICELDA). The very purpose for which these universities use these assessments dictates that their validity be established. To a greater or lesser extent, Stellenbosch University has also used these assessments. The aim of this paper is to assess the extent of the utility of the language component of these assessments for this university. The paper will analyse scores obtained by a total of 14 600 first-year students on these assessments over a period of three years to determine the degree of accuracy with which they can classify students with regard to academic language proficiency. The paper will then deal with the implications of the results of this study for the success of students at Stellenbosch University.
Title: The professional development of Natural Sciences teachers: Possibilities of a community of practice

Contribution type: Research-based

Author(s): Philander, C; Botha, M

Keywords: continuing, professional, teacher, development, community of practice

Abstract:

In South Africa the Department of Basic Education is concentrating on Continuing Professional Teacher Development (CPTD), linking it to higher education in South Africa, in order to improve teacher quality. The CPTD of teachers is a critical factor linked to learner performance. However, rural school environments present unique barriers, particularly teacher isolation, that hamper CPTD.

The study was steered by the main research question, which focused on the possibilities of a community of practice approach in the professional development of Natural Sciences teachers in the Vredendal area. The main question was supported by three sub-questions related to how a community of practice can assist in facilitating the professional development of Natural Sciences teachers and what principles and aspects can influence the effective operation of a community of practice.

A theoretical framework based on Wenger’s (1998) Community of Practice model (CoP) underpins the research design, within a naturalistic case study. A thematic data analysis approach was used. The results indicate that local teachers have a common need for support with the content knowledge, pedagogy and teaching strategies related to Natural Sciences. Some of the findings centred on the professional identity of teachers, which is considered as a key factor in their motivation, effectiveness and retention.

In conclusion, this study demonstrated that a CoP could constructively facilitate the professional development of Natural Sciences teachers in rural areas as intended by the National Policy Framework for Teacher Education and Development in South Africa. This finding could also be expanded to the wider education community.
Title: The reflexive imperative for leadership and scholarship at Stellenbosch University

Contribution type: Research-based

Author(s): Andrews, R

Keywords: Social Realism, reflexivity, leadership, transformation

Abstract:

Bhaskar’s Critical Realist theory states that absolute Reality exists in the world and this Reality can be known (1985). Reality consists of events and experiences as well as structures, powers and mechanisms. Reality comprises three domains, namely the Real, Actual and Empirical. Critical realism requires one to identify the structures and mechanisms at work in order to understand and be able to effect change within a social order (Corson, 1991).

Archer (2007) states that this Reality consists of structure, culture and agency, each with powers and properties, which permeate the Reality. We exercise our agency or causal powers upon structure and culture within society when developing projects and programmes. Choosing to exercise our power of influence or not to act, is called Reflexivity.

Archer’s Theory of Reflexivity as an explanatory tool enables us to explore the influence of leadership at higher educational institutions. Leadership as discursively constructed is culturally embedded within the University. A university leader fulfilling a position will draw on their reflexivity as well as the powers and properties of their position. The leader’s reflexive behaviour influences their approach to change and challenge. They may draw on structure and/or culture for personal good or social gain. In so doing, they will either transform or replicate the existing social structures and cultures within the institution. Preliminary research findings at a comprehensive university reflect the above with the findings that most leaders are unaware of how their reflexivity enables or constrains institutional transformation.
Title: The role of a peer mentoring programme in facilitating EDP students’ access into higher education

Contribution type: Practice-based

Author(s): Lombard, S

Keywords: first years, Extended Degree Programme, 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) in the Faculty of Arts and Social Sciences (FASS).

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, and 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 and a report on the quantitative and qualitative data gathered since 2015 from annual evaluation processes as well as the lessons learnt thus far and plans for the future of the programme.
Title: The value of the traditional face-to-face lecture as part of blended learning and the consequent importance of well-developed presentation skills: Insight from the SU Interpreting Service

Contribution type: Practice-based

Author(s): Van Wyk, J; Theron, J

Keywords: blended learning, face-to-face interaction, communication skills, best practices for lecturing

Abstract:

Although there are different approaches to blended learning, many argue that blended learning is not simply incorporating the most recent technological developments into the curriculum (Strydom, 2017). Blended learning is, rather, realised ‘where there is an effective integration of different modes of delivery, models of teaching and styles of learning as a result of adopting a strategic and systematic approach to the use of technology combined with the best features of face-to-face interaction’ (Krause, 2007, as cited in Bath & Bourke, 2010). Different learning contexts could benefit differently from this combination and the balance between face-to-face and non-face-to-face interaction should be integrated through a process of evaluation of the goals and outcomes of each course, disciplinary content and context-specific priorities (Diaz & Brown, 2010).

Whatever the blend of learning opportunities, the argument can be made that the traditional face-to-face lecture is often an integral part of learning and the important role it plays should not be discounted. For this reason, it is vital that lecturers continuously develop their communication and presentation skills so that face-to-face interaction contributes to the learning process instead of interfering with it. A good source of insight into how this could be approached is the Interpreting Service at Stellenbosch University. For the past six years, interpreters have formed part of thousands of lectures across almost all faculties and in this presentation they will share general, practical tips and feedback on how lecturers can ensure that communication in the face-to-face lecture promotes learning in the classroom.
The Writing Lab: Listening slowly and the ethic of care

Contribution type: Practice-based

Author(s): Richards, R

Keywords: writing, slow scholarship, care work

Abstract:

These days, academic life proceeds at quite a pace. At the Writing Lab, by contrast, we prefer to take things slower. This is because we see writing as ‘a site of creative intervention’ (Ulmer, 2017) and our work as care work because we espouse a nurturant pedagogy (Traschel, 1995). However, care work has been shown by Tronto (1993) to be seen as devalued and for peripheral, damaged people. In this paper I consider our Writing Lab’s nurturant pedagogy and our support for slow scholarship and listening as care work and I theorise its value to the university.

I describe and provide motivation for our collaborative consultation method, which places a high premium on listening to students’ voices. I show how our method can help writers to learn how to argue ethically and engage with each other or their subject matter. Our method unsettles the traditional university model of who talks and who listens. In addition to facilitating the acquisition of transferable writing techniques, we provide an allowing space for rehearsing academic identity, where the students choose what they will perform. Nichols (2014) describes this part of writing lab work as a way of ‘disrupt[ing] embedded historical knowledges’.

We have a responsibility of care towards students if we are to uphold communitarian values of creating a space for diverse academic voices. Moreover, we find that a nurturant pedagogy is necessary for academic development and listening is a necessary part of belonging to a community.
This paper argues that one way for journalism programmes, such as the Honours course housed in the Department of Journalism at Stellenbosch University, to adapt and grow is for journalism educators to reflect and adapt their teaching approach and curricula based on student feedback.

The example of regular, informal focus groups with these Honours students is used to illustrate this argument. The ‘safe space’ metaphor referenced here suggests a non-judgmental environment where students can voice their opinions without prejudice – and with support from their peers.

While the department continuously gathers feedback on all modules and courses, this researcher would argue that the student focus groups highlighted here are a somewhat more expedient way of gathering student feedback that the department can use during its own reflective practices.

It would be erroneous to claim that the department has made large strides in only three years since these focus groups were initiated. This researcher would contend, however, that the department has taken small steps to ensure students’ voices are heard and reflected in curriculum changes. One example of such changes is the introduction of a Cultural Literacy on Africa sub-module to counter criticism that the department is too Eurocentric in its approach.

This researcher argues that the only way to ensure the future of professional journalism is to enable a new generation of media workers to enter the profession, confident in the knowledge that they can make a worthwhile contribution – and that their opinions are valued.
University programme renewal in professional fields – ‘We shall not cease from exploration’

Contribution type: Practice-based

Author(s): Bitzer, E

Keywords: programme renewal, curriculum inquiry, programme leadership, a scholarship of programme renewal

Abstract:

Against a background of rapidly changing economic, societal, professional and student needs programme renewal has become a feature of universities worldwide. Stellenbosch University is no exception in promoting an innovative and comprehensive relook of its programme offerings. In the past, changes to programmes in professional education often happened in haphazard fashion as smaller additions to or subtractions from programme curricula were made – mostly at the modular level. Currently the focus is increasingly on comprehensive renewal efforts led by academic leaders and programme coordinators.

In 2017 the author was appointed to provide programme renewal support and advice across five faculties at Stellenbosch University that mainly offer professional qualifications: Medical and Health Sciences, Engineering, Law, Education and Theology. In this paper the author reflects on programme renewal experiences and explores the possible characteristics and principles in the quest for a scholarship of programme renewal. Such information might be useful to inform continuous programme renewal efforts over the next number of years.

The paper also highlights a number of key findings from the programme renewal effort thus far, which include the need for continuous programme renewal, the scholarship of programme inquiry, criteria for successful programme renewal implementation, key data for programme renewal actions, programme renewal structures and leadership, renewal impact evaluation, and initiatives for starting and supporting programme renewal.
Title: Using a framework to understand how institutional culture influences the uptake of faculty development opportunities: A case from Health Professions Education

Contribution type: Research-based

Author(s): Van Schalkwyk, S; Blitz, J

Keywords: academic staff development, faculty development, organisational change

Abstract:

The provision of faculty development offerings responsive to individual needs and institutional contexts is an ongoing challenge for faculty developers. Current work offers useful directives on possible approaches. Few studies are from countries where the health system, within which students are trained, is under-resourced.

To understand factors that enable and constrain the uptake of faculty development a multi-site study was conducted. Data were subjected to descriptive statistical analyses or coded thematically. An existing organisational four-lens typology was adapted to serve as analytical framework.

Initial analyses of responses (n=145) identified reasons for and against attending faculty development offerings. The majority of respondents acknowledged the availability of opportunities and appreciated the nature thereof. The context was not experienced as enabling for uptake. Workload was a major inhibitor, specifically for those with clinical commitments.

Contextual factors were key across all four framework lenses – political, symbolic, structural, and human resources. Evident was the tension between institutional purposes and respondents’ own needs and challenges. Messaging was regarded as ambiguous, adding to the complexity.

Health professions educators are called upon to facilitate learning in complex spaces. Supporting them in this role is an institutional imperative requiring more than the conventional focus on workshops and short courses.

Success of faculty development interventions depends on understanding the political and symbolic nature of structures within which teaching occurs, and the people responsible for it. In under-resourced contexts, this has particular relevance. A framework for organisational change can inform the adaptation of institutional culture to facilitate greater uptake of opportunities.
Voices from the home fires: Findings of the SOTL 2016 conference closing session on ‘Decolonising Higher Education Spaces’

Contribution type: Research-based

Author(s): Malgas, R

Keywords: #feesmustfall, student protest, decolonisation of curricula

Abstract:

During the closing session of the 2016 SOTL conference, Stellenbosch University (SU) teaching staff participated in a facilitated discussion on ‘Decolonisation in Higher Education Spaces’. Engagement with and amongst staff on these issues has been minimal, compared with iterative processes in the student community. Delegates grouped into faculties and responded to four questions related to the 2015 student protest action at SU. Staff responses were recorded electronically, synchronously and in real time, and analysed inductively (Cresswell, 2014), using Atlas Ti. Themes were categorised, then juxtaposed with frameworks from literature (e.g., Le Grange, 2016 and Chimisa, 2012) for theoretical context. Emotive responses of anxiety, confusion and uncertainty were dominant themes, but were surpassed by the frequency of expressions of empathy for students. Many respondents reported simultaneous conflicting feelings of empathy and anger. Space – physical, personal, symbolic – emerged as being highly contested. A lack of safe space for staff, and students, but especially for staff to constructively engage with students on topical issues, was presented as a significant barrier to overcome. Coupled with this are the inability, incapacity and, in some cases, unwillingness of staff to engage on difficult topics, for fear of retribution, judgement or aggravation. Expressions of denialism, though present, were minimal. The findings contributed to a report on ‘Decolonisation of the SU curriculum’ in August 2017, with action points highlighted for recommendation. Apart from offering valuable ideas from staff, the findings offer an opportunity to test theories on the decolonisation of curricula and their emerging application at SU.
Title: ‘What has Athens to do with Johannesburg?’ Toward ‘decolonised’ engagement with Classical Antiquity through blended learning at Stellenbosch University

Contribution type: Practice-based

Author(s): Daniels, A

Keywords: Classics, blended learning, transformation, decoloniality

Abstract: South African universities find themselves in the throes of programme and curriculum renewal, trying to answer calls for curricula that acknowledge and give centrality to African and subaltern voices are addressed. In this regard, courses on / related to Classical Antiquity offered at at least nine South African universities face the challenge of transforming a field that, from its roots to its later uses and legacy in South Africa, seems at odds with meaningful transformation of the Arts and Social Sciences. Some innovative research is currently being produced to this end, however, teaching priorities and methodologies lag behind. It is my contention that our engagement with the Classical canon and inherited curricula needs to be transformed – through different ways of thinking and doing; through adopting and developing South African lenses through which to view Antiquity. My presentation will focus on the affordances of e-learning tools and blended teaching methods, as means to promote African ways of thinking and doing, even as students engage with the cultures, histories and languages of the Graeco-Roman world(s). It also seeks to address the challenges of accessibility and computer-proficiency, both of which are, within the South African context, often inconsistent with current assumptions about Generation-Z and which therefore contribute to academic exclusion when e-learning tools are introduced. Drawing on the work of Diana Laurillard, Achille Mbembe and others, and sharing some of my own practice and vision, I hope to make a contribution to the transformation of Classical Studies in Africa.
Title: What will my future look like? – Reflective practice as driver of holistic student development

Contribution type: Practice-based

Author(s): Van Aswegen, S; Du Preez, R

Keywords: futures thinking, reflection, holistic development, top academic students

Abstract:

Education’s purpose is to empower students for ‘the future’, but do we often enough ask our students how they view their own futures? Futures thinking involves a structured exploration into how society and the physical and cultural environment shape the future – a thinking approach that is critical for the development of tomorrow’s thought leaders. Thus, fostering a student’s understanding of the nature of change in society, and providing opportunities to reflect and think critically and creatively about the future they will be co-creating, is an essential developmental initiative.

This paper reports on a specific intervention that forms part of a larger co-curricular programme [OPTIMUS], aimed at the holistic development of top academic undergraduate Economic and Management Sciences students. The purpose of this paper is twofold: firstly, to describe the use of reflection as a development tool in the context of futures thinking and the holistic development of students, and secondly, to share the findings pertaining to a sample of academic top-achieving undergraduates.

Content analysis was used to code responses on three questions relating to the future of business and society. Results indicate that students believe the future will be better, but less humane. Interestingly, the biggest uncertainty regarding the future is not political issues, but job security because of automation. Recommendations on the utility of reflection as a developmental tool are provided.
Title: What you need to know about your lectures but what students won’t necessarily tell you: Exploring the benefits of peer feedback among lecturers

Contribution type: Practice-based

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Keywords: student feedback, peer feedback among lecturers, efficient communication in the classroom, best practices for peer feedback

Abstract:

Although students at SU generally give formal feedback on modules and lecturers, it is often done only once and at the end of a term. In the meantime, there might be various communication-related issues that could have a negative impact on teaching and learning but that lecturers are completely unaware of. However, for various reasons, lecturers can’t only depend on students to inform them thereof. Instead, receiving feedback from fellow lecturers could prove to be a valuable tool for eliminating many of the unnecessary barriers to effective and inclusive communication in the university classroom.

If not well thought out or communicated, however, peer feedback among lecturers could be experienced as nerve-racking assessment or uncalled-for critique. It is therefore vital that best practices are shared. One environment that makes regular use of peer feedback is the Interpreting Service at the SU Language Centre. Their so-called Buddy Rating System forms part of the in-service training of educational interpreters and the regular and detailed feedback by their colleagues enables them to make certain adjustments to ensure communication is as efficient as possible.

Being both an educational interpreter and lecturer, I could see how the peer feedback system interpreters use could greatly benefit lecturers. In an effort to apply these principles to lecturing, a case study was conducted among lecturers in the module Scientific Communication Skills 172. The design of a lecturer feedback system as well as the findings of the specific case study will be discussed in this presentation.