2023 SoTL conference: PREDAC poster abstracts

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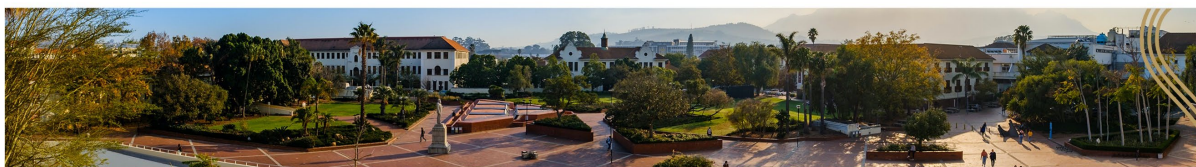**30 Oktober –
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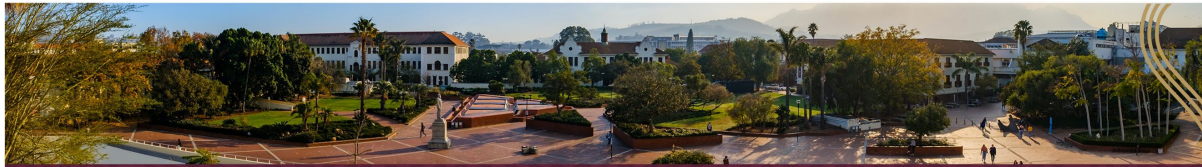UMSINGATHI :
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Title: A catalyst for interprofessional collaboration in teaching and learning

Author(s): Müller, J

Faculty: Faculty of Medicine and Health Sciences

Contribution type: Reflection

Contribution format: Poster

Abstract:

A faculty wide interprofessional education (IPE) opportunity was last held at FMHS in 2014. In 2022 the Centre for Health Professions Education started developing an IPE strategy with the aim to reintroduce and improve IPE at the FMHS. Departmental champions and potential IPE initiatives were identified through my pre-existing relationships, but I had no relationships with staff in the Nursing Department. Leveraging off potential opportunities created by curriculum renewal and potential sharing of workload and resources across departments made it easier to convince people to consider IPE (Blakeney et al., 2016). During PREDAC I connected with Silindokuhle Nyezi from Nursing over a common interest in rural health and invited her to join the planning of an IPE project. Four departments collaborated in making the rural virtual interprofessional home visit project a success with 375 students from four different professional degree programmes attending. Researching IPE for six years and knowing relationships are integral to collaboration for students (Khalili et al., 2013) I never considered it as a purposive strategy for interprofessional staff engagement. I now recognize the importance of relationship building opportunities such as PREDAC to enable innovation and interprofessional education and inter-sectoral collaborations. The relationship with Silindokuhle has resulted in nursing's representation at the quarterly Ukwanda – DoH meeting, exploring rural placement of nursing students is 2024. I now plan to capitalize off the new FMHS IPE Special Interest Group and Faculty Development opportunities to encourage interprofessional relationship development to enhance collaborative teaching and learning opportunities (da Silva et al, 2022).

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Title: A Holistic Approach to Enhance Engineering Drawing Capabilities

Author(s): Ramatsetse, I; Swart, W; Duckitt, D; Durandt, G; Govender, P

Faculty: Faculty of Engineering
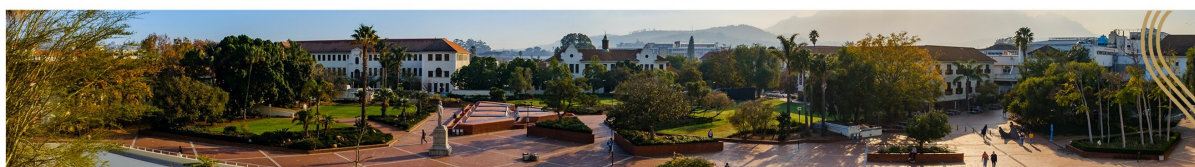
Contribution type: Reflection

Contribution format: Poster

Abstract:

Engineering Drawings 123 is a cornerstone module in the faculty of Engineering and forms the foundation for all engineering disciplines. Engineering drawing students face difficulties to understand the complex concepts of this course due to a lack of visualization skills. To address this, Schreve and Wolff (2023) identified key factors for a holistic approach to teaching the module, addressing the problematic factors related to visualization of standards discussed by Sotsaka and Singh-Pillay (2020). Promising preliminary results were reported by Schreve and Wolff (2023) by following a holistic curriculum approach during a hybrid block module presentation. To expand on these results, the proposed study intends to implement an integrated holistic approach in the traditional engineering drawings 123 module during the first semester to address key student learning challenges. Key issues pertaining to student learning were identified through critical reflection (Rolfe et al, 2001) on student and lecturer feedback. These issues were classified according to the CAS model to from a tangible breakdown of the learning challenges that first year students face in class. Problems concerning the affective and systemic domains are dominant, and various methods are proposed to create better learning opportunities within the confines of the busy first year timetable and module scope. In addition, student feedback highlights that student attitudes towards the relevance and perceived difficulty of the module plays a role towards overall academic performance, experiences and achievement. Therefore, an emphasis is place on demonstrating the module relevance with specific examples tailored to each engineering discipline.

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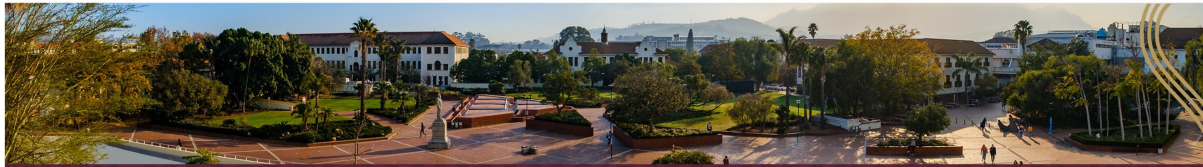|	
Title:	A Community of Practice Approach to Enabling Epistemological Access to Energy-related Concepts in Engineering Courses
Author(s):	Hans T, Johnson L, Meas M, Nguza T, Venter A
Faculty:	Faculty of Engineering
Contribution type:	Reflection
Contribution format:	Poster

Abstract:

There are significant challenges for engineering students in modules centred on energy-related concepts in undergraduate degree programs. The abstract nature of threshold concepts, along with unfamiliar symbols, formulae, and contextual rules leaves students lacking in confidence, leading to heightened stress, anxiety, and a diminished inclination toward self-directed learning. This situation is exacerbated by a tendency among students to resort to rote learning, an approach that hampers deep learning and the ability to relate theoretical concepts to real-world scenarios – a crucial skill for aspiring engineers.

The importance of collaboration between engineering disciplines is increasingly being recognised in both academia and industry, where foundational concepts are applied to isomorphic problems. A collaborative reflection in which the concept of momentum conservation is explored across several modules offered in various engineering disciplines. By considering the underlying theory, assumptions, simplifications, and applications, we identify several fundamental similarities and highlight significant differences. Through this analysis, we reflect on the areas in the teaching and learning process where gaps in epistemological access exist. This negotiated understanding enables us to develop targeted interventions that allow students to reflect and strengthen their knowledge whilst establishing meaningful connections between theoretical knowledge and practical applications, kindling student interest and enhancing the overall learning experience.

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Title: Civil Engineering Portfolio Project

Author(s): Way, A; Kruger, J

Faculty: Faculty of Engineering

Contribution type: Reflection

Contribution format: Poster

Abstract:

Please note that this abstract has also been submitted to SoTL as part of a FINLO/FIRLT research project with the same title.

The tertiary education of individuals to become engineering professionals requires the holistic development of knowledge and skills from all the cognitive, affective and psychomotor domains (Bloom, 1956). In civil engineering, learning within the cognitive and psychomotor domains are typically favoured. Anecdotal evidence suggests that in the BEng programme at SU, the affective development of an identity as a civil engineer may not be taking place effectively. Learners are not prompted to consider how the theory and skills from each module fits into the greater scheme of civil engineering. This can lead to a fractured view of progress towards the achievement of graduate attributes and may stunt the development of learner self-confidence. This presentation presents the progress of a portfolio system which has been developed and implemented to promote learner self-confidence through the perception of growth over time, by prompting students to consider the link between individual modules and civil engineering as a whole. The system incorporates academic tasks linked to a central civil engineering problem, which is revisited in each module, focusing on that modules' contribution towards a holistic solution to the problem. Students are encouraged to reflect on how theory and skills developed in previous modules have enabled learning in current modules, and how current modules may enable learning in future modules. It additionally prompts a consideration of the link between modules completed in academia and the application of these module skills in practice during vacation training, to recognize the relevance thereof to their holistic growth as civil engineers.

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Title: Critiquing modes of student feedback: What can we learn?

Author(s): Nyezi, S; Meiring, K; Motsepe, T

Faculty: Faculty of Medicine and Health Sciences

Contribution type: Reflection

Contribution format: Poster

Abstract:

Student feedback in higher education plays an important role in the quality of education by including students in their learning process. Following the Covid-19 pandemic, online platforms such as Blackboard, Moodle, SUNLearn and various other platforms were utilised to facilitate teaching and learning. These modalities further brought changes to how student feedback on teaching was obtained. However, obtaining student feedback is often met with difficulty, where students are often not keen to participate in the process. One of the main reasons for the aforementioned is that of concerns related to anonymity and any prejudice ex post facto. Nonetheless, student feedback regarding the content and/or lecturer(s) is like conducting a SWOT analysis – an opportunity to improve, rectify and develop the services provided by academic institutions. Therefore, this report is aimed at discussing the perceived value of student feedback based on the method in which it is collected – standardized vs. customized. Additionally, the effectiveness of real-time vs retrospective feedback was considered when considering students' response frequency, as well as the detailedness and level of honesty communicated in these feedback modalities. Overall, student feedback should be viewed as an exercise necessary for the betterment of tertiary institutions and all its employees. However, facilitating how this process is conducted, how the results are interpreted and how to implement change requires ongoing discussion.

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Title: Enhancing Biochemistry Learning Through Multimedia: A Reflective Analysis

Author(s): Sheik Abdul, N

Faculty: Faculty of Science

Contribution type: Reflection

Contribution format: Poster

Abstract:
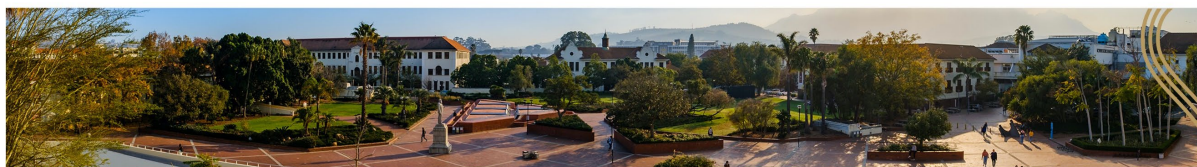
The use of multimedia resources has the potential to transform education, by enabling student-focused teaching methods that engage and prepare them for success. This presentation explores a reflection process inspired by "Rolfe's reflective model" on the use of multimedia to foster deep understanding and critical thinking in the context of teaching key biochemical concepts.

A video presentation was used as an aid to teach a fundamental biochemical concept. The incorporation of MCQs as a quiz provided an immediate assessment of students' comprehension of the material. The subsequent discussion of incorrect answers encouraged active participation and promoted a deeper understanding of the subject matter. This interactive process helped with clearing any underlying misconceptions about the content covered, fostered critical thinking and self-education awareness. By engaging in this form of teaching, students were guided through a transformative learning experience where they gained knowledge and critically engaged with the subject matter.

While this approach was successful with a smaller cohort of students, it encountered challenges when implemented with a larger number. Lack of individual attention led to disparities in student engagement. This can be addressed by implementing a strategy of dividing the larger cohort into smaller groups, allowing quizzes to be tackled collectively. Additionally, a commitment to ongoing adaptation and student feedback will permit adjustments to this teaching method. This multimedia approach has the potential to transform the role of a lecturer into that of a facilitator, emphasizing the importance of student self-study over traditional teacher-led lectures.

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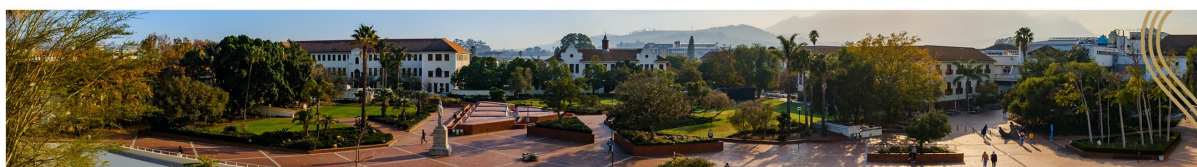|	
Title:	Enhancing Teaching in Exercise, Sport, and Lifestyle Medicine: A Reflective Approach to Bridging the Gap between Theory and Practice
Author(s):	Solomons, J; Radebe, V; De Wet, C; Rainsford, I
Faculty:	Faculty of Medicine and Health Sciences
Contribution type:	Reflection
Contribution format:	Poster

Abstract:

Becoming a reflective practitioner is a transformative process that enhances teaching and student learning, particularly in the field of Exercise, Sport, and Lifestyle Medicine, where hands-on learning is essential. This is vital as research consistently highlights the difficulty of applying theoretical knowledge to practical skills (Goldsmith, 2000). Fostering teaching skills through reflection is crucial for lecturers to try and bridge the gap between graduates and their professions (Martin & Double, 2006). In practical professions, reflective practice is indispensable for seamlessly integrating theory and application, catering to diverse learners, refining teaching methods, fostering critical thinking, and promoting lifelong learning. Reflection reveals, amongst others, pedagogical challenges like inappropriate teaching methods, students' self-assessment difficulties, underdeveloped communication skills, and excessive assessments. Addressing these issues involves practical-oriented classes, smaller group dynamics, flipped classrooms, peer/student evaluations, and collaborative discussions, aligning with a Heutagogical approach (Levy-Feldman, 2018) for fostering lifelong learning and autonomy. This poster has a dual purpose: firstly, to showcase the methods employed to enhance learning in practical professions of Exercise, Sport, and Lifestyle Medicine by peer-to-peer learning opportunities, and secondly, to visually illustrate how reflective practices offer benefits to students in these fields. It will provide a clear depiction of how reflective approaches adapt to the unique demands of each specialised domain, enhancing the educational journey for future professionals as well as bridging the gap between theory and practice.

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Title: Finding the Balance: A case for workload management

Author(s): Terblanche, E; Esterhuyzen, L

Faculty: Faculty of Economic and Management Sciences

Contribution type: Reflection

Contribution format: Poster

Abstract:

Investment Management modules' assessments generally follow the same formula: one group project and two main assessments (A1, A2 and/or A3). The main assessments' due dates tend to fall simultaneously at the end of the semester. Many investment management students are thereby overburdened with the high workload obligations presented by this assessment framework. Previous studies have indicated that students overburdened with assessment schedules were linked to significantly increased anxiety and depression levels (Alvi et al., 2010). We believe students' educational experiences can improve by creating a balanced module assessment design. This was attempted by replacing the group project with five assessments spread across the semester. The new assessments were held during class to avoid clashes with other Investment Management modules'A1 assessments' due dates. Only the marks of the best four out of five assessments were used to count towards the students' Assessment Further (AF) mark to provide a greater chance to improve their mark. The intervention placed additional administrative overhead on the lecturers to set and distribute class tests. However, informal feedback obtained from the students was mostly positive, with little to no negative feedback. Some students expressed overwhelmingly positive feedback and recommended it be done for future classes. Therefore, we recommend that other modules facing similar challenges adopt this type of intervention to their assessment framework. Ultimately, the onus remains with the lecturers to find balance and avoid overburdening students.

Title: Level-up Your Feedback!

Author(s): Pearce, B; Kempen, E; Wolf, M; Feni, A

Faculty: Faculty of AgriSciences
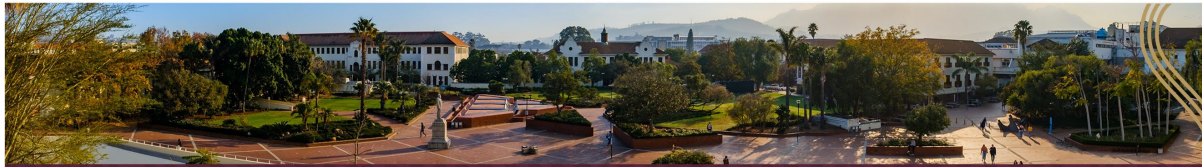
Contribution type: Reflection

Contribution format: Poster

Abstract:

The relentless development of technologies involved in remote working, immersive gaming, and recently AI, have highlighted how ubiquitous and accessible these innovations have become. With that, behind the scenes of modern gaming, lies significant technical and design principles built into these systems. With the continual computerization of the education sphere, the need for engaging and effective feedback mechanisms is paramount. This poster presentation explores the opportunities in the innovative approach of gamifying student feedback in the context of science education. By integrating principles of game design into the feedback process, we aim to enhance student motivation, comprehension, and overall learning outcomes. This abstract provides a glimpse into our research, which investigates the design, implementation, and impact of gamified feedback systems in science education. We highlight the potential benefits of gamification, including increased student engagement, a more comprehensive understanding of subject matter, and improved retention. Our findings contribute to the ongoing conversation about modernizing educational practices and fostering a more interactive, immersive, and enjoyable learning experience in the sciences. Join us in exploring the exciting intersection of gaming and education for a brighter future in science learning.

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Title: Pathways to Pedagogy: the FLIPPED classroom in Forensic Pathology

Author(s): Wilscott-Davids, C; Smith, Z

Faculty: Faculty of Medicine and Health Sciences

Contribution type: Reflection
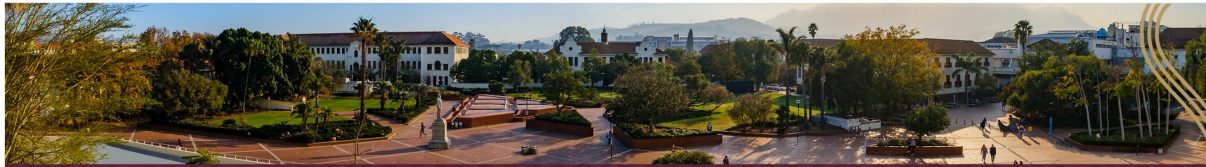
Contribution format: Poster

Abstract:

The Flipped Classroom model combines online learning with in-person classroom activities, allowing students to delve into subject material prior to class and maximize in-class active learning. This innovative approach is rooted in active learning theory, focusing on student engagement in the learning process.

Aims and Objectives: This project aimed to integrate the Flipped Classroom approach into a two-week practical Forensic Pathology module, with a specific focus on improving the understanding and competence of students in investigating sexual offences. Objectives include developing tailored pre-class materials, implementing the Flipped Classroom approach, and assessing its advantages and disadvantages.

Methods: Due to the COVID-19 pandemic, a need was created to implement alternative pedagogical modules to facilitate Teaching and Learning. A technology readiness of both Stellenbosch University and students was assessed, including access to devices, software and internet connectivity. The subject of "Sexual Offences" was identified as being suitable for implementing the Flipped Classroom model. Specialists in both the subject matter and health education collaborated. High-quality pre-class materials, such as video lectures, and interactive exercises, were developed to cover the identified core concepts. Training and support were provided to the academic staff during the implementation of the teaching materials. The process was monitored, feedback was gathered from the students, and the necessary adjustments were made to the resources and teaching methods. Feedback was collected from the students regarding their initial assessment of the Flipped Classroom model.

Findings: Advantages of the Flipped Classroom approach include increased student control over study methods, promotion of student-centred teaching, improved accessibility of content, and enhanced understanding of course material. However,

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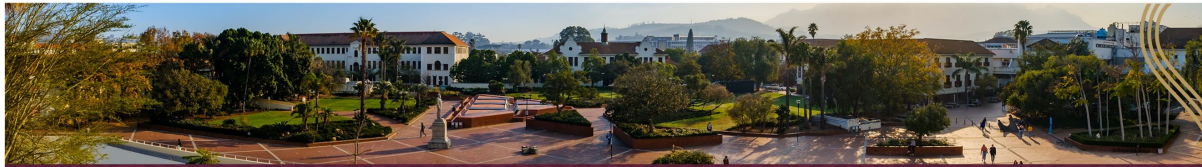vir transformerende onderrig-leer-assessering in diens van die samelewing

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disadvantages include potential exacerbation of the digital divide, significant preparation requirements, limited test-preparatory aspects, increased screen time, and associated costs.

Discussion and Conclusions: The Flipped Classroom model has brought innovation to teaching and learning in the Health Sciences, transforming subject matter, student and teacher roles, and the learning environment. While offering promising benefits, its adoption can be costly and necessitates further qualitative and quantitative research to understand its impact on students' perspectives and academic performance.

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Title: Strategies to Enhance Law Students' Critical Legal Reading Competencies

Author(s): Basson G; Fox B; Heydenrych E; Jeewa T; Melato L; Moyo A

Faculty: Faculty of Law

Contribution type: Reflection

Contribution format: Poster

Abstract:

The ability to accurately digest a large volume of legal materials and distil the most relevant and applicable standards and principles is a crucial skill that enforcers, adjudicators, litigators, researchers, and interpreters of legal texts must master (HE LLB Qualification Standard, 9-10). Reflecting on our experience as legal educators reveals that students in the LLB curriculum at Stellenbosch University often struggle to critically engage with foundational legal texts.

We contend that students' inadequate engagement with prescribed legal texts is not solely attributable to their neglect to read but also stems from a significant deficiency in the pedagogical strategies employed within the LLB curriculum (Rolfe et al, 2001). We assert that pedagogical approaches that enhance law students' engagement with prescribed reading materials are indispensable for their holistic development as legal professionals (Zepke & Leach, 2010, 167).

Drawing from the applicable policy frameworks, we investigate the effectiveness of the pedagogical strategies employed in our respective modules, where we, as educators, do not assume prior reading but actively engage in modelling and co-creating reading practices that cultivate the lifelong skill of critically reading various legal materials (HE LLB Qualification Standard; SU Assessment Policy; SU Teaching and Learning Policy). We make several practical recommendations that demand that legal educators take a more proactive role in modelling various critical reading strategies throughout the lifecycle of prescribed materials in their pedagogical delivery, providing students with the essential skills to engage with a wide range of legal texts throughout their lifelong learning quest as transformative legal practitioners.

Title: Teaching scientific principles through hypothesis lead experimentation: intuition before formulation

Author(s): Mayne, M

Faculty: Faculty of Science

Contribution type: Reflection

Contribution format: Poster

Abstract

The mathematical formulation of principles in physical sciences is historically taught by first unpacking a semantic understanding of an established principle and then by application of this principle to real world examples (Hassan, 2017, Maton, 2013). This approach allows the incremental stacking of concepts from an idealised simple environment to a more complex formulation that closer approximates natural systems. For example by calculating the speed of a falling object by introducing the formulation for gravity where air friction is ignored and then building to more complex formulations where air friction is considered. The drawback of teaching formulation and then application is that it isolates the learners intuition of their environment since formulation is performed in an idealised system (most people have limited intuition about frictionless environments). In this work we test an alternative approach which prioritises intuition before formulation. Students are presented with physical experiments in a classroom setting where the full complexities of a natural system are present and therefore intuition is maximised. The students are asked to analyse which factors are most important in the experiments, suggest relevant hypotheses that could be tested and finally build a formulation of the underlying principles that best describe the outputs. Initial results from student surveys, formative assessments before and after the learning opportunity and through reflection of the activity with peers suggests a high level of student engagement, an improved application of the principles taught outside of the worked examples and an increase in the confidence of students' understanding.

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Title: The Eagle Study: Bird's eye view of an honours course

Author(s): Maponga, T: Naidoo, M; Moremi, K

Faculty: Faculty of Medicine and Health Sciences

Contribution type: Reflection

Contribution format: Poster

Abstract:

Background: The Bachelor of Science Honours (BScHons) Medical Virology and Medical Microbiology course offered at Stellenbosch University runs over a period of 10 months. The number of students range from 5-8 per year. The course consists of five modules (research methodology, immunology, molecular biology, medical microbiology, medical virology) and is composed of formal lectures, and formative and summative assessments.
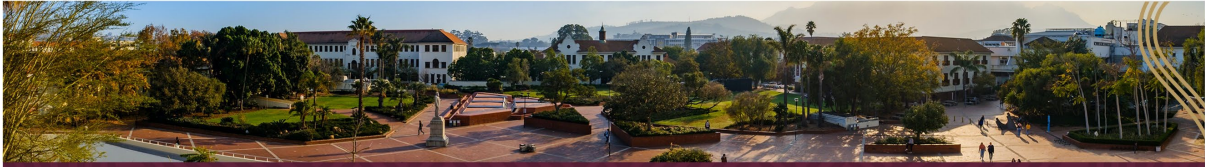
Aim: To evaluate the learning and assessment opportunities within the course and their scheduling.

Methods: We performed visual mapping using a story board covering all the components of the BScHons course. We also administered an online, anonymised student survey consisting of two open-ended questions to obtain general feedback on their experiences and recommendations.

Results: Story board analysis and reflection revealed a highly condensed lecture period in a short space of time i.e., 2-3 weeks per block. We also found that there were too few formative assessment opportunities. In terms of feedback from the student survey, issues highlighted for improvement included insufficient and/or overlapping time allocated for research projects and assignments, insufficient formative assessment opportunities, too much content over a short period of time, and issues with the type of assessment.

Conclusion: Shortcomings in the structure and content of the BScHons course was identified. Implementation of more learning initiatives and addressing scheduling issues was vital for course improvement for the coming year. This included spacing out lectures, the introduction of monthly check-in sessions, and providing more formative

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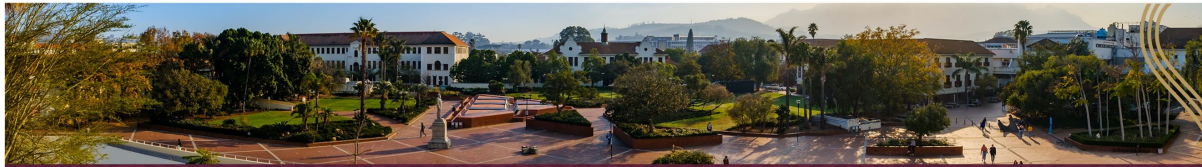lCandelo lokuPhuhliswa kokuFunda nokuFundisa

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assessments which allowed students to interact with course content on an ongoing basis. Contribution type: Poster Word count: 249 Stream: Reflection

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Title: Theory in Practice: Making a theoretical class practical

Author(s): Smith, M; Mulandana, P

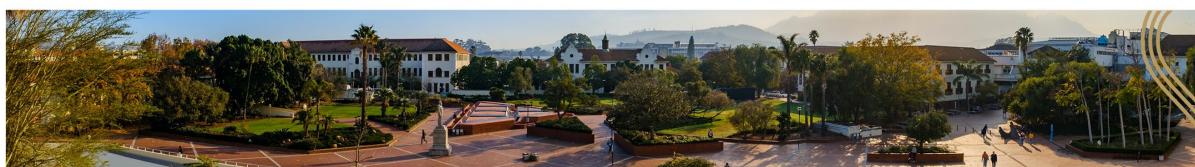**Faculty:** Faculty of Economic and Management Sciences

Contribution type: Reflection

Contribution format: Poster

Abstract:

Auditing modules have traditionally been presented using the transmission style of teaching, where the instructor delivers information, and the student receives it. With the large volume of content being transmitted to the student, and little interaction from the student with the content, students find it difficult to grasp the core principles being taught, and rather try to memorize the information instead of gaining an understanding of it, making these principles difficult to apply to various scenarios. We believe that Teaching as Transaction would be a better form of teaching for this type of material, as Teaching as Transaction sees teaching as the process of creating situations whereby students are able to interact with the material to be learned in order to construct knowledge (Johnson, 2010). Knowledge is not passively received; rather, it is actively built up or constructed by students as they connect their past knowledge and experiences with new information (Santrock,2004). This was attempted by introducing role play into the classroom, whereby students were selected to act out different roles in a business, together with acting out their various responsibilities (such as authorizing payments after reviewing and comparing the payment schedule to the source documents). This was done in an attempt to assist students with understanding the business processes and how it should be audited, by visually demonstrating these processes. There were more administrative tasks to be performed by the lecturer (printing of the documents as examples to use in class etc), but overwhelmingly positive feedback was received. Repeat students provided feedback that they finally grasp the concept after trying to study it for years. For this reason, we recommend that the auditing topics (such as cycles and internal controls) be presented in a practical transactional manner, instead of the traditional transmission style of teaching.

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Title: To Flip or Not: Applying Blooms Taxonomy for TLA

Author(s): Mashigo, D; Beukes, D; Scherman, J; Tebele, M

Faculty: Faculty of Military Science

Contribution type: Reflection

Contribution format: Poster

Abstract:

Traditionally teachers had to introduce students to new information during a class and this approach on teaching and learning encouraged complete reliance on the teacher. To assimilate learning, teachers had to assign homework, which most students found to be burdensome and often, did not yield a better understanding to most. With this methodology to learning, parents are inclined to assist the students in subjects which they themselves were mostly last engaged in some years ago. This challenge that both teacher and parent faced was mitigated by the concept of flipping the classroom. By flipping the classroom, the students are encouraged to introduce themselves to the content of the subject matter before they enter the classroom.

Thus, prompting their interests as they read and submerge themselves in their new learning material in the comfort of their own homes. This nuanced approach to TLA is implemented by means of lecturer pre-recorded video[s], prescribed books/learning material, smaller assignments, informal learning groups, and presentations. This results in generating an understanding of knowledge and encouraging student's accountability and involvement in their own learning journey (Kurt, 2018).

This type of instructional strategy aligns with Blooms Taxonomy's lower levels of cognitive work level. This inverted classroom according to Lage, Platt and Treglia in Brame (2013), then allows for more complex processing and application of knowledge in class. Thus, resulting in keeping students more motivated and allowing for a short teaching time and more group discussions that enhances knowledge and peer learning. Students can ask conceptual questions, solve problems, engage in meaningful discussions, and partake in peer-on-peer instruction. The lecturer is then able to observe the level of understanding and knowledge of students and can further assist the students to understand the contents better.

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The flipped or inverted classroom is thus a great means of teaching, learning, and assessing.

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Title: Toys, Cards, and Debates: harnessing fun and games for a positive approach to theory
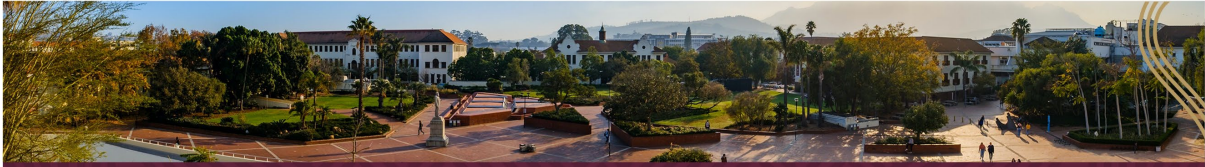
Author(s): Finnemore, J; Gill, T; Westwood, U

Faculty: Faculty of Arts and Social Sciences

Contribution type: Reflection

Contribution format: Poster

Abstract:

In three FASS modules, it was found that students struggled to engage with specific theoretical material and apply it in new contexts: in Socio-informatics/Information Systems Management 364 students had difficulty understanding and applying the theoretical aspects of overcoming 'knowledge boundaries' to enable collaboration; in Perspectives, Theories and Models of Social Work 378 students struggled to confidently identify appropriate practice frameworks from theory to apply in their intervention plans with client systems, in Greek 178, students found it hard to distinguish between grammatical categories when describing forms of the verb, leading to confused analysis and inaccurate translations. Lecturers for these modules therefore designed creative interventions to enable students to use and enact theory in new ways. In Socio-informatics/Information Systems Management 364, the lecturer gave students the opportunity to use Lego Serious Play (LSP) to surface understanding of team synergy and to enable first-hand experience of team building. In Perspectives, Theories and Models of Social Work 378 a healthy debate was created in class wherein the class was divided into four groups that had to motivate why their practice framework would be successfully applied to the class case study. The debate was utilized to grow the students' confidence in theory application within practice. In Module C (Greek 178), the lecturer designed a card game which clearly delineated the terms applicable to each category, and enabled students to compete in groups to analyse different forms of the Greek verb, with each student in charge only of one category of analysis. After implementing these interventions, the lecturers took informal student feedback, and used Rolfe et al.'s (2001) reflective model based around the questions 'What?', 'So what', and 'Now what', to critically reflect on the effects and outcomes of these interventions, and how they can be used to improve student learning in future. We found that active learning became possible through the development of fun and discussion-based activities across all of our subjects, enabling deeper engagement with and ability to

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apply the theoretical material, with positive student feedback alongside evidence of improvement in assessment.

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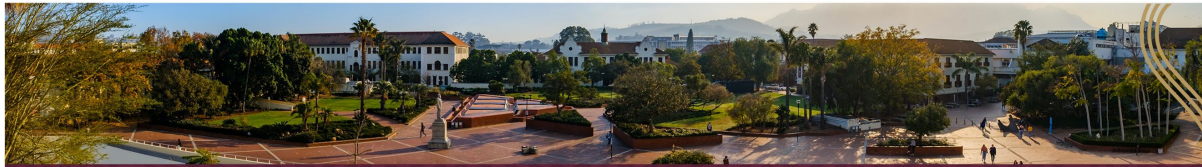vir transformerende onderrig-leer-assessering in diens van die samelewing
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Title: The Transformation of Health and Wellness MBChB II: Enhancing Learner Experience

Author(s): Grantham, M; Thomas, A; Satardien, M

Faculty: Faculty of Medicine and Health Sciences

Contribution type: Reflection

Contribution format: Poster

Abstract:

Introduction/Background:
Health and Wellness MBChB II is an introductory module to the concept of biopsychosocial health for second-year students studying medicine at Stellenbosch University.
This is a new module and was first implemented in January of 2023. As newly appointed lecturers at Stellenbosch University, we wanted to explore the constructive alignment (objectives, teaching and learning activities, and assessment methods) of the newly designed module.
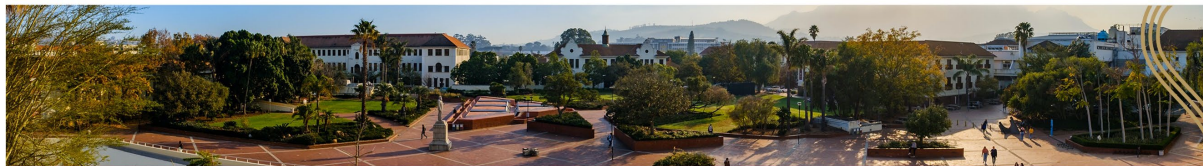
Aim
Our overarching aim was to evaluate the new module to ascertain if the content of the module aligned with the objectives of the module.

Objectives
We endeavoured to optimize student learning experiences and provide adequate exposure to relevant content that will contribute to the foundation and preparation for the follow-on modules in Paediatrics.

Project Description/Methods:
By reviewing the course module utilising the DeLTA: Designing Learning-Teaching-Assessment @ SU framework we hoped to provide a transformative learning experience for our scholars (2). Through applying constructive feedback from the first group of students exposed to the module along with storyboarding, we were hoping to identify areas of improvement. We based our approach on Biggs' theory of constructive alignment (3). We reviewed our objectives by formulating SMART outcomes for the module (4) to highlight shortfalls of the module.

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We assessed the feedback received with the intention to base any changes we would implement on three pedagogical approaches (Constructive, Collaborative and Reflective Approach). (6)

Methods:
A paper-based feedback questionnaires and an electronic feedback questionnaire accessible via SUNLEARN were utilized.

Results:
The paper-based feedback had a poor response (23% responded).The SUNLEARN questionnaire had a 90 % response.
Students felt lectures were intensive and were perceived as exhausting.
Feedback also emphasised that a proportion of the questions asked in the written examination were not covered in the module.
During our storyboarding session, we further identified that there was a lack of content exposing the student to what the normal expected neurodevelopment of a healthy child should be.

Discussions:
We utilised the Flipped learning module. (7) We incorporated a series of instructional videos in the form of interactive SCORM packages with quizzes for students to complete prior to lectures, to free up in-person teaching time to allow for greater interaction. We also changed some content covered in lectures to be included in clinical skills exposure. With Bloom's six levels of cognitive process dimensions in mind (8), we formulated SMART outcomes for the module, thus ensuring constructive alignment between our objectives, teaching and learning activities provided, and assessment vehicles.
The Neurodevelopment SCORM was reviewed by a Neurodevelopment Specialist (AT) and modified to fit the objectives and will be implemented in 2024 when the new group of second-year students start.
A second round of feedback will be conducted at the end of November 2023 when the current group of students have completed the current module, incorporating the above-mentioned improvements.
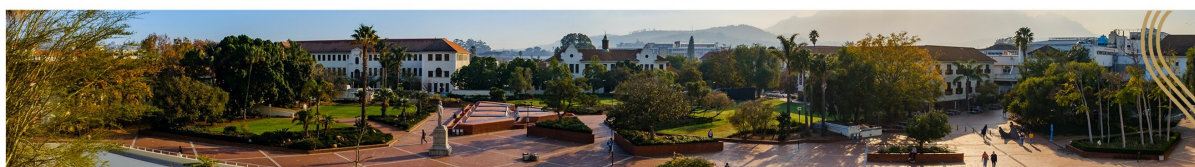
Conclusion:
This project highlighted the areas in which we, as new lecturers, could improve the student experience and align our module content appropriately.
The necessary changes will be implemented for the next group of students.

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Title:	Transformative Learning: Integrating and Formalising Critical Reflection into a Structured Masters in Engineering Management (MEM) Programme
Author(s):	Bond-Barnard, T
Faculty:	Faculty of Engineering
Contribution type:	Reflection
Contribution format:	Poster

Abstract:

There is a need to broaden engineering management perspectives due to the growing learning demands from engineers and scientists in industry and the important role they play in organisations and society. This presentation highlights the importance of critical reflection in the field of engineering management learning and education, as it is crucial for work, citizenship and moral decision-making (Closs & Antonello, 2011). This study argues the value of weekly reflections that are required in all modules of the MEM degree. It discusses the important role of Reflections concerning the broader learning experience as it relates to the MEM's hybrid online delivery mode. I explain how the Reflections support many learning experience imperatives that are important in the MEM, and vice versa. These learning imperatives include the learning curve (Cook, 2007), the Ebbinghaus forgetting curve (Chun & Heo, 2018), the Dunning-Kruger effect (Wikipedia, 2020), Halsted's method (Bongiovanni et al., 2022; Romero et al., 2018), designing quality into the programme (Juran, 1992), the emphasis on "learning to learn" and "lifelong learning" and being successful in the real world-of-work. The weekly Reflections also provide an important mechanism for the lecturers and programme administrators to track the continuous engagement of students, something of particular importance in hybrid online learning. Finally, I present updated requirements for the weekly Reflections process, including requirements and expectations of students. These follow from experiential learning and the imperatives stated above and are a manifestation of continuous improvement in the learning experience. This study led to the development and implementation of a new MEM Reflections Policy for the structured MEM programme at the University of Stellenbosch.

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Title:

Author(s):

Faculty: Faculty of

Contribution type: Reflection

Contribution format: Poster

Abstract: