Abstract book

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Title: A comparative analysis of hands-on and ReVEL web-based Physics practical lab sessions for first-year Physics students in the Extended Curriculum Programme – A case study at the University of Fort Hare

Contribution type: Research

Contribution format: Presentation

Author(s): Mthimunye, T; Kwinana, P; Sikhonza, M

Keywords: ReVEL, remote experiments, virtual experiments, accessibility, online learning

Abstract:

The COVID-19 pandemic has forced South Africa's higher institutions and the world to deliver lessons remotely. While e-learning is possible for many institutions, science courses such as Physics have a significant practical component that students have to complete to gain proper insight into the subject. This paper presents a comparative analysis of traditional Physics lab sessions and web-based experiments accessed with the aid of the ReVEL (Remote and Virtual Education Laboratory) facility at the University of Fort Hare.

The study was undertaken with 66 Extended Curriculum Programme (ECP) first-year students while performing their first-year Physics experiments. The same group performed both hands-on and web-based experiments. The web-based experiments were subdivided into (a) remote, and (b) virtual/simulations. The students performed a total of nine experiments (three per method) and were evaluated at the end of each. The results showed that a larger percentage (96%) of the students preferred the physical lab due to its physical accessibility, as opposed to the remote lab (81%) and virtual laboratory (91%), which are both web-based and unfamiliar. Students' preference can be attributed to the fact that data was uploaded late at times, the network was unreliable, and computers were not readily available for access to web-based labs. It was further noted that some of the new students were computer-illiterate, which also had an effect. The percentage difference between the labs is insignificant, which implies that students also prefer web-based laboratories practically similar that of face-to-face.

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Title: A diverse graduate

Contribution type: Innovation

Contribution format: Presentation

Author(s): Busuku, B; Moodley, R

Keywords: entrepreneurship, diverse students

Abstract:

This research seeks to address the growing, day-to-day problem of unemployment we face as a country. Too many young graduates are sitting at home, having little or nothing to do with their hard-earned qualifications. It is very important to try and investigate how we could better prepare our students to be more than their professions – to be diverse graduates. At times like these, students have to be equipped with other skills to survive, should they not find employment.

Entrepreneurship is commonly taught and researched in business schools, but seldom, if at all, in design departments. The world is experiencing an entrepreneurial revolution. Research in this field over the past decade has increasingly focused on entrepreneurship within the boundaries of existing organisations. This subfield of entrepreneurship research is known as “intrapreneurship” or “corporate entrepreneurship” (Morris, Kurotko & Covin, 2007). Students trained in entrepreneurship are able to bring to the table new ideas on how to rejuvenate an organisation, on its position in markets and industries, or on the competitive arena in which the organisation operates. Therefore, this research aimed to analyse more ways in which we could be implementing entrepreneurship in design programmes.

We used both primary and secondary qualitative data, which we mainly collected through online surveys via Google Forms. The first survey consisted of ten multiple-choice questions and ten questions. The aim was to conduct the survey among 300 former students, some of whom were working in their professional field, some outside their professional field, and, sadly, some were still unemployed. The survey was conducted from 6 to 12 November 2020 between 11:00 and 16:00. The former students were given 15 minutes to complete the anonymous survey. A total of 283 students eventually responded. Similar research had been done by Tselepis (2020) and Antonacopoulou and Fuller (2019).

The survey results reveal that an entrepreneurship-based subject is indeed needed in design departments. It would benefit students greatly by better preparing them for the real world and equipping them with diverse skills.

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Title: A retrospective study: How COVID-19 affected pedagogical practices in Extended Curriculum Programmes

Contribution type: Research

Contribution format: Presentation

Author(s): Roberts, A; Moodley, R

Keywords: COVID-19, teaching, learning, 2020

Abstract:

The aim of this research paper was to analyse how the shift from face-to-face to fully online teaching and learning as a result of COVID-19 affected student learning in 2020, specifically in the Extended Curriculum Programme (ECP).

On 27 March 2020, students and academics, along with the rest of South Africa, suddenly found themselves in a hard lockdown and faced many unknowns. This was also true for the Architectural Technology and Interior Design (ATID) Department in the Faculty of Informatics and Design (FID) at the Cape Peninsula University of Technology (CPUT). The researchers sought to study the impact of COVID-19 on ECP students in the ATID Department. The ATID ECP is a one-year, predominantly drawing-based programme that aims to support disadvantaged students who do not meet the academic and drawing requirements for the mainstream course.

During lockdown and amidst online teaching and learning, academic staff sent out a questionnaire to students to ascertain their progress with online learning, and how they were personally affected by COVID-19. The results revealed that many students had been left completely isolated from their peers and families, which had a negative effect on their mental wellbeing, and also affected their academic progress. Many students were isolated from campus facilities such as computer laboratories, a quiet and conducive work environment, and access to WiFi. As a result, students did not have information on lessons, presentations, timetables, deadlines and critique sessions. To address these shortcomings, academic staff attempted to find solutions to support students who were battling to cope under these extraordinary circumstances. According to Karl, James and Cappel (2006), while some students enjoy and succeed in online learning, many struggle. This often depends on students' ability to interpret information online, and whether they have the resources and living conditions needed for online learning (Karl et al., 2006). Following further student feedback, staff utilised the ECP budget to provide students with stationery packs, mobile phones and data on behalf of CPUT in an attempt to enable better remote learning.

The researchers employed a case study methodology, implementing qualitative research analysis by means of questionnaires. Data was also drawn from the virtual platforms Blackboard and Zoom, which academic staff used to share content with students, and from WhatsApp, which served as a communication tool. Through these means, students could access content and receive feedback in their own time, and staff were able to monitor student activity. However, learning also depended on whether the student could accurately understand the information that was presented.

Students' academic learning continues to be negatively affected by COVID-19, as the resources and teaching pedagogies that were implemented pre-COVID-19 are no longer fully effective, although, in hindsight, this offers a further opportunity for innovation in teaching and learning. Currently, academics are workshopping blended learning through further questionnaires, adjusted assignment types and lessons to strike the right balance that would benefit all students and academic staff in the future.

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Title: Baby steps to research: A scaffolded teaching approach

Contribution type: Innovation

Contribution format: Presentation

Author(s): Selepe, C; Du Plessis, R

Keywords: research, scaffolding, case study, access programme, curricula

Abstract:

The University of the Free State (UFS) offers higher education access to students with low university admission scores through a Higher Certificate in Humanities. Students enrolled in this access programme are usually underprepared for tertiary education. They may enrol for mainstream curricula only once they have successfully completed this year of preparation. The purpose of access programmes is to support and empower students. This empowerment is aimed at ensuring that students have the academic foundation to complete their studies successfully (Motsoenyane, 2020). In the second semester of the certificate, the Department of Communication Science has created a module that scaffolds the research process for students. Research is incorporated into the assessment to ensure that students are given the research foundation they will need throughout their studies. This study aims to determine how students view research in an access programme, and whether their views change after being exposed to the learning process. To do so, students are first given a research-related question to determine whether they have any background knowledge of the research proses. Students' responses are submitted through a journal entry on the UFS learning management system (LMS). From there, students complete a scaffolded research case study about Charlotte Maxeke, a heritage research assignment. Once students have done their research case study and received feedback, they complete a survey to see whether their views on research have changed since they started, and to determine what they have learnt. Scaffolding in teaching and learning refers to adaptive and temporary support provided to students by a teacher or lecturer (Gonulal & Loewen, 2018). This idea was initially introduced by Wood, Bruner and Ross in 1976 and is called the "zone of proximal development" in Vygotsky's work. According to Coleman (2018), thoughtful and innovative curricula and teaching interventions are defining attributes of access programmes. As such, this research project not only decolonises the curriculum, but also adds value to students' academic competences, which is one of the graduate attributes at the University of the Free State. At the same time, fellow practitioners may use the same strategy to determine how students view research in their particular contexts, and introduce students to other forms of research in their specific modules. These and other implications of this initiative will be elaborated on during the presentation. Access modules focus specifically on content, learning approaches and basic concepts that encourage advanced learning (Garraway & Bozalek, 2019). This module attempts to go a step further by teaching research, and preparing students for future academic research projects. Teaching research in access modules not only serves as a foundation for students' further studies, but also increases their chances of academic success.

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Title: Capturing student voices via the cloud: An auto-ethnographic ECP journey

Contribution type: Innovation

Contribution format: Presentation

Author(s): Du Plessis, N; Snyman, M

Keywords: ECP, student voice, questionnaires, cloud/online, (self-)reflection, 21st-century learning needs

Abstract:

The emergency remote learning environment lecturers suddenly find themselves in due to COVID-19 is a new, even foreign, "faceless" teaching and learning environment (Kaur & Bhatt, 2020). Therefore, it is an environment in and about which there is a lot to learn in terms of providing an engaging learning experience to students, and optimally supporting students in this new "faceless" classroom. Working in an auto-ethnographic way (Ellis & Bochner, 2000; Jackson & Mazzei, 2008), this presentation reports on two lecturers' experiences using Google Forms in an extended degree programme at a South African university. Informed by a participatory method (Elliott & Reynolds, 2014), the lecturers aimed to capture students' experiences of the extended communication module focused on 21st-century competencies. To this end, students were asked to complete online questionnaires (Leendertz, Blignaut, Ellis & Nieuwoudt, 2015) about their experiences as they engaged with their first-year ECP module during the eight weeks allocated for remote emergency teaching in the first semester of the 2021 academic year. The primary focus of the online questionnaires was to: (i) ascertain whether the lecturers addressed these students' 21st-century learning needs, and (ii) determine the importance of students playing an active role in developing pedagogy through sharing their perspectives. Additionally, the lecturers were also interested in the students' demographics, their wellness in the new remote teaching and learning environment, as well as their reflections on their lecturers' teaching and their own learning practices. As a result of the project, lecturers now feel confident that they ultimately managed to hear their students' voice (Chukwere, 2021; Quaglia Institute, 2016) through and across the cloud. It is a voice that not only gives lecturers greater insight into the new "faceless" teaching and learning environment, but to which they are also confident they can respond through an ethic of care (Gilligan, 2008). Despite the drawbacks of questionnaires (Charteris & Smardon, 2018; Robinson & Taylor, 2013; Seale, 2010; Trowler & Saunders, 2018), the project illustrates that students can be heard, and become active participants in the often "faceless" 21st-century teaching and learning environment. This kind of participation enables valuable insight into factors such as interaction between students and lecturers, the use of technology, and collaborative learning.

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Title: Catchers in the Rye – educationalists leading learning in a pandemic

Contribution type: Innovation

Contribution format: Presentation

Author(s): Badenhorst, E; Doyle, G; Ige, B; McNamee, L; Pienaar, L

Keywords: scholarship, learning, pandemic, educationalists, academic development

Abstract:

Building inclusive learning and teaching communities of practices, where students engage meaningfully with the curriculum, is crucial in the face of the severe educational challenges brought about by COVID-19. Instead of being swept away by the crisis, it has become essential rather to reconsider the scholarly nature of academic endeavours. The Educational Development Unit (EDU) seized this opportunity to underpin its vision for academic development in the Health Sciences Faculty at UCT. Whilst a previously implemented intervention programme (IP) had provided the faculty with a vehicle to widen access (Ige et al., 2017), student protests foregrounded this "fail-first" model as problematic. Therefore, a new model of support was developed, encompassing a data-driven approach, staff and curriculum development, student participation, and specialised learning support. This presentation focuses on developing scholarship within a team of learning experts as a crucial building block towards implementing this new model. During emergency remote teaching (ERT) and the subsequent blended curricula of 2021, the EDU convened a team of lecturers, students and educationalists to navigate the emerging teaching and learning challenges. Regular team meetings were used systematically to introduce and emphasise the four pillars of scholarship, namely discovery, integration, application and teaching (Boyer, 1990) alongside learning challenges. Student voice played a crucial role, as class representatives and senior students contributed to discussions, highlighting learning barriers. To foster a scholarly understanding of how best to design support activities, the educationalist convenor of the team introduced concepts such as mediation and scaffolding (Vygostky, 1978), understanding misconceptions (Badenhorst et al., 2015, 2016), good assessment practices as imperative for learning (Broadbent, Panadero & Boud, 2018; Swan Sein, Rashid, Meka, Amiel & Pluta, 2021), language-related learning challenges (Cazden, 2001; Pappamihiel, 2002; Chval et al., 2015; Horwitz, 2001), appropriate digital literacy support (Hodges et al., 2020), threshold concepts in scientific understanding (Rowbotton, 2007) and affective factors affecting learning (Greyling, Rossouw & Adhikari, 2020). Activities included developing and implementing online resources, "hot seats", drawing on a coaching model to address study methods, focus groups with staff teaching in the regular curricula, and presentations to the faculty and student body. This integrated model, underpinned by a scholarly understanding, has raised the profile of academic support in the faculty, as the learning experts and the students on our team have become respected voices to lead new ways of thinking around supporting a diverse student body. Our approach is in line with UCT's 2030 vision of unleashing undergraduate students' potential in a changing world through developing a diverse team of learning experts, working together in a culture of inclusivity, collaboration and dialogue. Developing similar teams at learning institutions will foster a deeper understanding of transformational teaching and learning strategies, framed by sound pedagogy across disciplines and fields of study. We are currently embarking on a research project to evaluate the impact of our approaches. We welcome collaboration with fellow educators to explore scholarly approaches that would foster a better understanding of academic support at tertiary institutions.

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Title: Changing times, changing pedagogical practices: Exploring literacy acquisition in science

Contribution type: Research

Contribution format: Presentation

Author(s): Padayachee, V; Singh, V; Chetty, N

Keywords: code theory, curriculum, literacies, pedagogy, transformation

Abstract:

Higher education is changing, with a greater emphasis on its utilitarian purposes and skills development for economic and scientific advancement. The ways in which students learn and lecturers teach are also changing, influenced by factors such as university transformation, globalisation, decolonisation and technology. Because of these issues, lecturers revisit their pedagogical practices and the way in which knowledge is constructed and recontextualised. This study focuses on lecturers' pedagogical practices as well as students' experiences in the Communication in Science (SCOM) module. The SCOM module is offered in the BSc4 augmented stream in the College of Agriculture, Engineering and Science at the University of KwaZulu-Natal (UKZN). Taught over two semesters, SCOM facilitates the acquisition of discipline-specific literacies and immerses students in scientific discourse and genres.

The study aimed to examine curriculum and pedagogical changes in SCOM over time, and to understand the impact of these changes on students and their academic performance. To this end, the following research questions were addressed:

(i) What types of changes have taken place in the curriculum?

(ii) How can "classification and framing" be used to understand these changes?

(iii) How have these changes affected student performance?

Data was analysed using the theoretical framework of Bernstein's code theory, with a particular focus on classification and framing to analyse how knowledge is structured in the curriculum, and the impact of lecturers' changing curricula and pedagogical practices. Bernstein's codes were used to conceptualise the principles that structure practices in education. Maton and Muller (2006:2) describe Bernstein's work as digging beneath the empirical features of education to explore their underlying structuring principles, and what generates these.

The qualitative study had some 250 participants, all students enrolled for the SCOM module in UKZN's BSc4 augmented stream. Data was obtained through open-ended questionnaires administered to students, as well as from document analysis of students' written assignments, in addition to course manuals and curriculum documents.

Findings reveal that framing, especially sequencing, within literacies taught in SCOM in each semester is most meaningful when sequenced with students' writing tasks in the pure science modules. These findings should help improve the efficacy of delivery of discipline-specific literacies in SCOM. [Back to index]

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Title: Comparative analysis of 12-year ECP throughput rates and their mainstream counterparts at the University of Fort Hare: Challenges and achievements

Contribution type: Research

Contribution format: Presentation

Author(s): Mgadi, M; Kwinana, P

Keywords: extended curriculum provisioning, graduate throughput

Abstract:

Extended curriculum provisioning was introduced in South Africa to address issues of equitable access, a high failure rate in the first academic year, low throughput rates in higher education, and the need to bridge the gap between school and higher education systems. These challenges are more pronounced in fields such as science and agriculture. This paper reviews the performance of Extended Curriculum Programme (ECP) cohorts in the Faculty of Science and Agriculture at the University of Fort Hare compared to their mainstream counterparts over a period of 12 years. It also highlights achievements, as well as how challenges were overcome to support students as they adjusted to university life.
The study was done by analysing raw data of throughput rates received from the HEMIS officer in Fort Hare's Planning and Quality Assurance Division. The research excluded foreign students, partly because of their matric background, as well as because 99% of ECP students in the Faculty of Science and Agriculture are South Africans. The performance data of ECP and mainstream cohorts up until graduation was analysed and reported, including for those who completed their studies in regulation time. ECP students' annual contribution to the graduation throughput rate was also analysed. Among other achievements elaborated on in the paper, the research reveals that the ECP cohort accounted for a significant share of graduate throughput rates in the faculty over the years. Future research efforts will focus on tracking ECP students and their successes upon exiting the higher education institution.

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Title: Conceptualisation of curriculum in Extended Curriculum Programmes: An advancement of curriculum transformation

Contribution type: Research

Contribution format: Presentation

Author(s): Ntlabathi, S

Keywords: Extended Curriculum Programme, curriculum transformation, higher education, institutionalisation, advancement

Abstract:

Extended Curriculum Programmes (ECPs) are not a new phenomenon in the South African higher education landscape. Some higher education institutions have made great strides in institutionalising ECPs, while others are still grappling to conceptualise theirs. It is worthwhile to understand whether the advancement of ECPs has had any implications for curriculum transformation. According to Boughey and Mckenna, "the existing dominant approach to ECP has shifted focus from student unpreparedness for university to making the manner in which the subject knowledge is constructed and produced, or epistemology, more transparent" (Boughey, 2009; Mckenna, 2003). This study seeks to investigate the implications of ECPs for curriculum transformation, specifically looking at how curriculum in ECPs is conceptualised. The concept of curriculum transformation entangled in the decolonisation debate in the South African context has led to much contestation between what is said to be Western knowledge systems and the inclusion of African indigenous knowledge systems. The research approach adopted for this study falls within the interpretative paradigm, embracing qualitative research and a case study methodology. The data sources are institutional policies, course outlines as well as learning guides speaking to curriculum in ECP courses. Interpretations of data in the form of texts are unpacked using thematic analysis to identify concepts and capture relevant tensions aligned with the research question. Key concepts embedded in the documents outlined above are identified through discourse analysis relative to the research question. This exploration of the conceptualisation of curriculum in ECPs allows us to ask challenging questions about the relationship between ECPs and interventions pertaining to curriculum, and to establish the implications of these interventions for the advancement and transformation of ECPs. In the documents analysed, it is very difficult to differentiate the knowledge systems contained in the material as Western or indigenous African. Only the activities and exemplars used seem to relate to the African indigenous context. As this study forms part of a bigger project, interviewing the lecturers concerned will give us a broader view of the knowledge systems included in the curriculum. Findings from this review may benefit researchers interested in the decolonisation of the curriculum and could support further research and enhance interdisciplinary collaborations.

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Title: COVID-19: Impact on teaching and learning of postgraduate Health Science students

Contribution type: Research

Contribution format: Presentation

Author(s): Lazarus, L; Bisetty, V; Omotoso, B; Anirudh, E

Keywords: postgraduate scholarship, pandemic, graduate research

Abstract:

The 2020/21 academic year has posed extraordinary challenges to graduate education as a result of the COVID-19 pandemic. Together with the pandemic, focus has shifted to matters of inequality and inequity in graduate education, producing a new mindset that has identified discrepancies in some graduate research that was able to continue during the lockdown, and other research that was halted because labs were closed or the graduate student was unable to access resources (Brasset et al., 2020), often as a result of historically hierarchical structures. For research to continue, online and remote learning in graduate studies became crucial, necessitating not only flexible and resilient education systems, but also flexibility and resilience among graduate students. The aim of this study was to investigate how the research and supervision/mentoring of postgraduate Health Science students were affected by the COVID-19 pandemic. The study will help academics improve their research and supervision strategies for postgraduate Health Science students.

An online survey was administered to 22 Anatomy and 39 Physiology postgraduate students at the University of KwaZulu-Natal to gauge the impact of the pandemic on students. The survey comprised 25 multiple-choice questions where students could provide examples of positive and/or negative supervision strategies. The link to the online Google Forms questionnaire was disseminated to students via e-mail and WhatsApp. A total of 13 responses were received. Written informed consent to participate in the study was obtained from participants.

Aspects that were noted as key factors affecting the students were delayed access to administrative (69,2%) and laboratory facilities (61,5%) as well as domestic factors (53,8%). Regarding support from supervisor(s), 92,3% of the participants reported a good working relationship with their supervisors, 69,3% received stronger emotional support from their supervisors, whilst only 38,5% received advice on working from home. Altogether 77% of the students agreed that their supervisor always assisted in addressing any problems or queries they encountered in their research during the national lockdown. In terms of the COVID-19 pandemic, only 53,9% of the study participants felt that they could discuss the pandemic and its effects with their supervisor(s). With regard to the future planning of postgraduate research, 76,9% of the study population reported minimal to no changes in their research plan, whilst the remaining group had planned to delay their studies by a year.

The study provides insight into the mechanisms of graduate research at the University of KwaZulu-Natal in a post-COVID-19 era. Graduate research, more specifically in the field of Health Sciences, has been tremendously affected by the pandemic. Results from the study have highlighted areas of the research process that require attention and amendments going forward. Addressing these issues at the start of any investigation is vital to ensuring successful and productive research. [Back to index]

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Title: Effectiveness of ReVEL web-based laboratories for the performance of ECP Chemistry students at the University of Fort Hare

Contribution type: Innovation

Contribution format: Presentation

Author(s): Mselana, S; Kwinana, P

Keywords: ReVEL web-based laboratories, student performance, face-to-face laboratories

Abstract:

Since the start of the COVID-19 pandemic, many courses, including those with strong practical components, such as Chemistry, have had no choice but to switch to e-learning platforms. With students accustomed to face-to-face laboratories, moving the lab work to the online environment has proved complex and challenging. The introduction of ReVEL (the Remote and Virtual Education Laboratory) has revolutionised lab work, allowing for real experiments to be taught online.

This study sought to ascertain the effectiveness of the implementation of web-based experiments as an alternative approach to teach lab work to new ECP students. The remote laboratories were compared to other virtual or simulation laboratories available online. Selected groups of students were required to perform all their first-semester experiments, rotating between face-to-face, remote and simulation laboratories. Practical marks were recorded and analysed. All students completed an anonymous survey on their perceptions of the ReVEL technology, the effect of the lab work on their understanding of the theory, and their opinion of the efficiency of the three platforms.

The results reveal varied student preferences in terms of the three platforms. The majority indicated a preference for the web-based labs, as these afforded them more time to repeat lab work until concepts were understood. Based on these results, one can conclude that web-based laboratories are as effective as face-to-face ones. Future research will focus on the implementation of this technology among mainstream students.

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Title: Enquiry-based learning as a “process of becoming”: A critical reflection

Contribution type: Research

Contribution format: Presentation

Author(s): Nomdo, G; Hunma, A

Keywords: knowledge producers, agency, being, becoming, enquiry-based learning, reflective practice, assemblage, intra-action

Abstract:

The scholarship of teaching and learning (SoTL) recognises the important interrelationship between teaching and learning, and values critical dialogues on teaching-learning praxis beyond local contexts. This focus shifts attention from research outputs drawing on student behaviour, to a broader focus on teacher-learner mutuality, disciplinary practices and institutional landscapes. Rapid changes in higher education require the fostering of critical citizenship as a core graduate attribute. The massification of education, however, has emphasised throughput at the expense of nurturing students’ sense of “becoming” as they navigate transformations in selfhood. This represents a stumbling block for meaningful participation in their own learning. This article explores the incorporation of enquiry-based learning in a flipped blended classroom setting that seeks to engage teachers and learners more reflectively as co-producers of knowledge. We show how this approach can nurture an awareness of the self through the process of “becoming”. We employ a qualitative case study methodology to interrogate data taken from student writing, interviews and course evaluations. Our analysis traces the progression of developmental insights present in students’ reflective thinking and writing about their learning. We conclude that the process of “becoming” is still possible in an educational context focused on measurable outcomes, where “becoming” is intricately linked to pedagogical imperatives seeking to empower, transform and enrich learning holistically.

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Title: Exploring the influence of the ECP domain on the construction of identity in writing

Contribution type: Research

Contribution format: Presentation

Author(s): Morris, A; Coleman, L

Keywords: identity in writing, academic development, academic publishing, scholarship of teaching and learning, Extended Curriculum Programme domain

Abstract:

Participating in knowledge construction and dissemination through publication has become an increasingly visible part of the multiple roles played by academics in the contemporary university. Academic literacies researchers, who view writing as a social practice, have expanded our understanding of the ways in which academics participate in these publication activities, specifically highlighting the type of identity dilemmas and negotiations they face (Nygaard, 2017; Curry & Lillis, 2018; Tusting, 2018). Located in this critical field of enquiry, this presentation offers an illustration of the complex ways in which two South African academic writers working in the Extended Curriculum Programme (ECP) domain understood and discursively constructed their identities through their writing for a recently published book on the scholarship of teaching and learning (SoTL). The research design of the study attempted to capture the authors' critical self-reflective processes through ethnographic data collection methods. This ethnographic framing foregrounded the interdependence of the researcher and participant roles, but also gave primacy to researcher reflexivity (Hammersley & Atkinson, 2008; Blommaert & Jie, 2010) and enhanced the critical self-reflection components of the research (Brookfield, 2010). The research sought to answer the following questions: (i) What perceptions did the authors have of their writer identities during their participation in the publication of the edited collection? (ii) What were some of the enabling or disabling factors that contributed to how the authors' writer identities evolved throughout the development of the publication?

The analysis uses the concepts of autobiographical self, discoursal self, and affiliation (Ivanič, 1998, 2005) to show how the writers were able to represent themselves discursively. The findings exemplify the value of the social practice view of writing, and its capacity to make visible the intricate ways in which the situational realities of a particular publication influence how writers enact various language, rhetorical and stylistic resources as they seek discursively to construct their alignment with their scholarship community. The peripheral position of the ECP domain, and the writers' position within it, had a significant influence on how the authors perceived and enacted their academic writer identities through the book publication. The presentation highlights the writers' experience of the continued disparities and inequities that characterise academic publication as a disincentive, engendering responses of reticence and reluctance towards further publication activities. The findings of this research have specific implications for academic development practitioners, especially those working in the ECP space. In particular, the research illuminates the generative spaces where academic development practitioners can lead dialogues to re-examine current publication practices and their consequential nature for writers, and explore possibilities to support emergent SoTL authors.

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Title: Fostering students' deep learning in higher education through deliberate practice by tutors

Contribution type: Research

Contribution format: Presentation

Author(s): Mhakure, D

Keywords: deep learning, deliberate practice, quantitative literacy, research tutorial, design-based research, lesson study

Abstract:

This study focuses on how deliberate practices by tutors foster students' deep learning in a higher education Extended Curriculum Programme (ECP) – in this instance, in a Quantitative Literacy (QL) intervention course. A deep approach to student learning involves a clear intention to understand and assign meaning to disciplinary content. During deep learning, the student "focuses on relationships between various aspects of content, formulates hypotheses or beliefs about the structure of the problem or concept, and relates more to obtaining an intrinsic interest" (Wilson & Colby, 2007:206). In contrast to deep learning, students can engage in surface learning, where memorisation, rote learning and minimum engagement with disciplinary content dominate (Asikainen & Gijbels, 2017). In the context of this study, deliberate practices refer to special professional development activities developed for, and engaged in by, tutors so as to improve their individual performance in tutoring (Bronkhorst et al., 2011, 2014). Special professional development activities in deliberate practice are designed for self-improvement, refined through repetitive cycles, followed by immediate and constructive feedback from knowledgeable colleagues, and aimed at fostering students' deep learning and cognitive development (Huang et al., 2019). This study used a four-phase design-based research methodology (Mhakure et al., 2020) to support tutors' deliberate practices. The study was carried out with three tutors in an ECP. All the tutors participated in a tutor training programme as part of their deliberate practice development, using special activities from a research tutorial. Therefore, the research question for this study was: What deliberate practices from tutor training activities foster students' deep learning in a QL intervention course? Analyses of the deliberate practice activities showed that tutors progressively fostered students' deep learning in the QL intervention course. The implication of this study is that deliberate practice does not only need to be special conceptualised activities aimed at developing tutors' expertise, but can also be used to foster students' deep learning and development. Further studies can focus on understanding how the lesson study as a research methodology can enrich the development of tutors' deliberate practices in ECPs.

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Title: From didactics to datafication: A critical reflection on virtual learning environments and the production of space

Contribution type: Research

Contribution format: Presentation

Author(s): Bernard, T

Keywords: datafication, higher education, postcolonialism, space, virtual learning environments

Abstract:

When writing about transformation in higher education in South Africa, the fall of apartheid and perhaps also 1994 are commonly referenced as a starting point for significant change. I too have made this mistake (see Bernard, 2015). However, the recent #FeesMustFall protests highlighted that many approaches to transformation have been superficial at best, and extremely problematic at worst (Luckett & Naicker, 2019; Luckett, 2019). This is because these approaches have done little to acknowledge the legacies that colonial modes of thinking have had, and continue to have, for the everyday lived experiences of students in spaces that still feel alienating to them. In April 2020, with the doors of South African universities closed to all, having undergone a swift and mass migration away from university campuses to virtual learning environments (VLEs), I was presented with the opportunity to critically reflect on the impact that increased use of VLEs can have on the transformation agenda in the higher education sector. My approach takes up the argument of Tumubweinee and Luescher (2019:2) that many initiatives aimed at transformation in higher education have failed because they do not pay sufficient attention to the "where" of transformation. Thus, like Tumubweinee and Luescher, I locate my reflection on VLEs in the postmodern, sociopolitical understandings of "space" evident in the work of Lefebvre (1991), more specifically his notions of conceived and abstract space. In doing so, issues of identity and coloniality are brought to the fore. My approach is critical in that it "implies possibilities, and possibilities as yet unfulfilled" (Lefebvre, 2002:18-19).

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Title: Is it all Greek? Learning to write science

Contribution type: Research

Contribution format: Presentation

Author(s): Mouton, M; Rootman-Le Grange, I

Keywords: scientific discourse, science practices, legitimation code theory

Abstract:

Science, like all other academic discourse, uses "power words and grammar" to package the knowledge of the field (Martin, 2013). Scientific discourse is a specialised language with complex meaning, and novices in the field often find it very difficult (Ambitious Science Teaching, 2015). It is characterised by specialised, concise language and passive voice to formulate clear, objective arguments and report new findings or elucidate experimental results. We expect students in science programmes to engage with complex disciplinary texts ("high-stakes reading"), and then demonstrate their mastery of the subject matter using appropriate scientific discourse ("high-stakes writing") (Maton, 2013). Many studies have highlighted that students find this extremely challenging, which is why Marshall and Case (2013) argue that "in not allowing space for a critical engagement with these values and ways of thinking, many students are implicitly excluded from successful engagement with the subject". Hence, they argue for making explicit the academic literacy practices of the discipline to advance learning for all students.

Our research question was: How do we make science practices explicit to Extended Degree Programme students, develop their scientific discourse skills, and help them navigate the gap between "high-stakes reading" and "high-stakes writing" in Biology? We drew on the semantics dimension of legitimation code theory (LCT), and specifically the concept of semantic density (complexity of meaning). Studies have shown that shifts between complex and simpler meaning (stronger and weaker semantic density), also known as "semantic waves", are crucial to support cumulative knowledge building (Maton, 2014). Martin (2013) further showed that complex language choices are associated with these semantic shifts.

Our study comprised two parts: (i) We designed and implemented a project, using collaborative pedagogy (Jacobs, 2007), to give students an opportunity to develop their Biology reading and writing skills, thus making the "rules of the game" in Biology explicit to the students. (ii) We then analysed extracts of writing relating to the project topic from randomly selected students' summative assessments to evaluate the level of their writing skills.

Our LCT analysis of the students' writing showed profound variation in their proficiency and skills in terms of scientific vocabulary and language functions. Further analysis of corresponding sections of the school and first-year textbooks as comparative standard also revealed interesting disparities. It became clear that some students had developed this critically important skill to some extent, while others, despite showing signs of growth in this area, needed even more opportunities and time for development.

It is evident from our study that EDP science curricula need to provide ample learning activities for students to develop skills such as scientific argumentation and writing. These students need structured learning opportunities that require them to engage with the scientific discourse in their textbooks (written forms of the disciplinary knowledge), and then articulate these concepts in their own words –

both verbally and in writing. Such pedagogy may help make the academic literacy practices of disciplines explicit to the students and promote learning for all.

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Title: Is the “abstract/concrete” distinction useful in education research?

Contribution type: Research

Contribution format: Presentation

Author(s): Southey, P

Keywords: abstract, concrete, research, concept

Abstract:

The notions of “abstract” and “concrete” are critical elements in education discourse. For example, they are central to legitimation code theory (Maton, 2013), the popular theoretical lens for education research, while mathematics education researchers also continue to debate the value of teaching mathematics from a more abstract or concrete starting point (Kaminski et al., 2008). In the context of ECPs, these ideas seem crucial in both describing students’ education inheritance and guiding education interventions. However, in this presentation, I argue that the ideas of “abstract” and “concrete” have become too ambiguous to be of much use in education research. I suggest that these terms could be replaced by more accurate terms, which are more closely associated with researchers’ purposes. In particular, I argue that the abstract/concrete distinction in education literature is currently based on (at least) three separate underlying ideas: (i) tangibility, (ii) familiarity, and (iii) perceptual richness. These ideas are introduced in their separate research contexts and shown to have different underlying theoretical assumptions as well as different educational purposes. Furthermore, it is shown how confusion can arise when researchers cite one another’s work without paying close enough attention to the particular use of the “abstract/concrete” distinction in a specific research context. Suggestions are made for how to avoid this confusion. In summary, I argue that developments in the cognitive sciences and education research have rendered the “abstract/concrete” distinction too blunt a conceptual tool to be of much educational use. I suggest a way to develop sharper conceptual tools, and hope to engender discussion as to which of these tools might be most relevant and useful in the context of education research in ECPs.

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Title: Learning about the class of 2021 from a diagnostic test

Contribution type: Research

Contribution format: Presentation

Author(s): Campbell, A; Padayachee, P; Ramesh Kanjee, K; Basitere, M; Mokhithi, M; Le Roux, P

Keywords: algebra, calculus, diagnostic test, first-year, errors

Abstract:

Adjusting to university mathematics is known to be challenging (Jacobs & Pretorius, 2016). Many students who started university in 2021 had completed their high-school studies during the unprecedented 2020 lockdown, which disproportionally affected students who had limited access to resources (internet, books, people who could answer mathematics questions) and those in crowded, noisy or unsafe home environments. The academic impact on students' success in university mathematics as a result of the sudden change in schooling and daily life remains to be seen.

Vygotsky's (1978) social constructivism states that students actively construct their learning based on their existing knowledge. If existing and new levels of knowledge are too far apart, learning is not effective. Identifying students' entry-level mathematics knowledge will inform the nature of scaffolding we can provide. To help us understand the mathematics levels of the class of 2021, and prepare for the cohorts to follow, we conducted this data analysis research as the first stage of action research (Carr & Kemis, 1986), involving stages of observing, reflecting, planning and acting. We followed the action research principle of involving multiple stakeholders by compiling our research team from convenors for semester courses in first and second-year Mathematics and first-year Physics for Engineering students. The action research principle of "democratic impulse" (Koshy, Koshy & Waterman, 2010:10) was followed by asking the incoming 2021 students to help us understand their familiarity with high-school mathematics so that we could adjust teaching and learning practices, instead of hiding the purpose of the research.

An existing diagnostic test for Engineering Mathematics (Durandt, 2018) was used, with permission. Participants were first-year Engineering students at the University of Cape Town. Having obtained ethical clearance, tests were administered in face-to-face tutorials at the start of the academic year. The online grading tool Gradescope was used to mark and analyse 205 responses to a diagnostic pre-calculus mathematics test. The findings confirmed previously reported areas of low performance, including simplifying fractions, sketching inequalities, finding domain by solving a quadratic inequality, and graphing shifted basic functions. The functionality of Gradescope contributed to the analysis by allowing all researchers simultaneous access to all the completed and scanned tests, as well as to marker-created rubrics describing errors.

The next stages of the action research will be to plan and implement changes to our curriculum to shrink the gap between students' incoming mathematics levels and the levels required for first-year studies. The insights gained in this ongoing action research have the potential to inform mathematics teaching and learning at school and university.

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Title: Multilingualism: A resource for meaning-making and creating ontological access

Contribution type: Innovation

Contribution format: Presentation

Author(s): Jonker, A

Keywords: epistemological and ontological access, multilingualism in higher education, social justice in higher education, decolonisation of the curriculum, teaching contemporary South African politics

Abstract:

This paper explores first-year Extended Curriculum Programme (ECP) students' multilingual practices in a university course that offers them access to professionally translated technical terminology of the subject field of contemporary South African politics. The study examines whether multilingual technical terminology – embedded in a dialogic teaching model – can contribute to students' epistemological and ontological access to the disciplinary content, and whether it can contribute to knowledge construction in a discipline by incorporating students' oral contributions on their lived experiences into the curriculum content. To answer the research questions, qualitative data was collected by transcribing, analysing and interpreting students' multilingual oral contributions on key political science topics. The findings confirm that students' vernacular literacies can play an important part in providing epistemological and ontological access at university, and can contribute to authentic transformation and the decolonisation of higher education in the process.

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Title: New role of teaching assistants in virtual spaces

Contribution type: Research

Contribution format: Presentation

Author(s): George, F; Rzyankina, E

Keywords: teaching assistants, online teaching and learning, tutorials, COVID-19, mathematics

Abstract:

ECP teaching assistants (TAs) are an indispensable part of higher education. TAs have dual identities: that of postgraduate student, as well as that of teacher (Bahmani, 2020). Recent studies on ECPs in higher education have highlighted that the role of TAs might not be clearly defined, resulting in role ambiguity, which is compounded in the context of the pandemic (Youde, 2020). Therefore, the main question we posed was: What are the new roles of TAs in virtual spaces at the University of Technology (UoT)? The data for this qualitative research study was gathered from seven TAs at the UoT who teach Mathematics to ECP first-year Engineering students. Data was generated from questionnaires, interviews and observation schedules. Our data analysis confirms the adaptation of the TA's role as well as the challenges associated with the new modes of delivery. The major findings suggest that ICT plays a vital role in students' performance. In summary, TAs expressed positive views about their engagement with students and lecturers in virtual spaces.

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Title: Optimising student success in ECPs: A hybrid model

Contribution type: Innovation

Contribution format: Presentation

Author(s): Rambharos, S; Seedat, N

Keywords: student success, developmental provision, augmenting course, hybridisation

Abstract:

The main systemic response to improve student success rates in higher education in South Africa has been the implementation of Extended Curriculum Programmes (ECPs). ECPs are intended to have strong social justice and transformative agendas by facilitating equity of access and prioritising the achievement of equity of outcomes and, therefore, ensuring student success. The Durban University of Technology (DUT) has embraced the implementation of ECPs since its inception in 2004 to ensure the success of differently prepared students. The focus of these ECPs is on integrating structured academic development with the curriculum to achieve a coherent, meaningful and holistic student experience. However, performance data have consistently shown that ECPs at DUT are characterised by high dropout rates, as well as poor performance when ECP students transition into the regular curriculum.

Therefore, ECPs need to focus on epistemic access, enhancement (breadth of exposure) and enrichment (through key literacies) in order to contribute to the development of adaptable graduates who are engaged and productive, critical citizens (CHE, 2013; Shay, Wolf & Clarence-Fincham, 2016). Scott (2019) recommends a broad approach to prioritising student success. A critical dimension for optimising student success is the curriculum (content and orientation, delivery and framework), and careful decisions need to be made to ensure that meaning-making, knowledge production and application in a programme are made explicit, and that students develop the competencies and intellectual capacities expected in higher education, the world of work as well as society. Furthermore, the Draft Policy Framework for ECPs (DHET, 2019) advocates for developmental provision throughout the ECP curriculum with enrichment and enhancement.

In response to the need to transform our ECPs so as to ensure student success, DUT has adopted a hybrid model of extended curricula that combines foundational and augmenting models. The ECPs are designed to include developmental modules in years 1 and 2, along with a reduced number of regular modules. In the subsequent years, augmenting courses – a combination of regular content and integrally linked developmental provision – are introduced. The augmenting courses incorporate additional time for both conceptual development and contextual application to reinforce foundational concepts, and for threshold concepts to be mastered in the more academically challenging courses. Academic literacies such as critical thinking and problem solving are integrated with the module.

This paper highlights the curriculum design decisions behind this hybrid extended curriculum and provides the rationale for the design. In addition, the experiences of the ECP champion of the Dental Technology programme, which ultimately led to the design of this ECP model, are discussed. Further research on the conceptualisation and operationalisation of this ECP model, as well as the perceptions of staff and students on its implementation, is envisaged. This paper suggests that the hybridisation of ECP

models ensures the inclusion of developmental provision throughout the curriculum with enrichment and enhancement.

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Title: Proactive student psychosocial support through life coaching: ECP case study

Contribution type: Research

Contribution format: Presentation

Author(s): Mogashana, D; Basitere, M

Keywords: life coaching, first-year experience, student agency, student success, psychosocial support

Abstract:

Higher education institutions in South Africa continue to experience high student dropout rates in the first year of study, especially among students from previously marginalised population groups. This has been found to be due to more than a lack of appropriate teaching and learning interventions, but also because students experience psychosocial challenges. As such, there is a need for more interventions that seek to address such challenges. The aim of this research was to evaluate how the use of a life coaching intervention to provide first-year students with psychosocial support would influence their first-year experience. Both quantitative and qualitative data was collected through a questionnaire at the end of the academic year, approximately four months after the intervention, to evaluate students' experiences of the intervention. According to the results, students felt that the intervention had prevented them from dropping out of university prematurely, helped them respond better to failure during the year, and improved their self-awareness and academic performance. In conclusion, the results suggest that the use of a life coaching intervention as a proactive means of harnessing student agency may be beneficial for their academic performance and for improving their lives in general. The study recommends that further research be conducted to explore the use of small-group life coaching to provide students with psychosocial support, as well as its cost-effectiveness in different contexts.

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Title: Reflections on emergency remote teaching (ERT) in a Physiotherapy intervention programme

Contribution type: Innovation

Contribution format: Presentation

Author(s): Martin, N; Pienaar, L

Keywords: intervention programme, reflections on ERT, resilience, social connectedness, teacher flexibility

Abstract:

The COVID-19 pandemic has disrupted the way individuals globally live and interact in their various settings. Academic programmes across all nations have been greatly affected as educators have swiftly had to move their programmes and educational activities into the virtual sphere. This was also the case for staff and students in a Physiotherapy extended degree programme in the Faculty of Health Sciences at the University of Cape Town.

The aim of this study was to describe the pedagogical insights gained during emergency remote teaching (ERT) in 2020 for students in the Physiotherapy extended degree programme.

The reflective cycle of Schon, in and on action, provided a way to illuminate and interrogate the lessons to be learnt when transitioning to an online learning space in a short space of time. Reflective observations about student learning and the role of the teacher in this ERT context were located in significant themes paralleled in other research on teaching and learning during the pandemic.

Student-related themes that emerged were (i) adjusting to the new learning environment, and (ii) the importance of fostering resilience. Themes for teachers were (iii) how best to promote a sense of community online, (iv) how to keep teaching and learning interactions simple, and (v) being flexible in the student–teacher relationship.

It is concluded that, for at-risk students in an extended degree programme, the transition to ERT should not undermine their educational growth and development. At the same time, however, it could be an opportunity to develop skills needed for future learning, as well as to help bridge foundational gaps. Lessons learnt during ERT suggest that students stand to benefit from ongoing academic support to maximise their learning.

As both students and lecturers struggle to acclimatise to the ERT environment, a deeper understanding between students and teachers may be established, which will foster deeper student–lecturer relationships and, consequently, meaningful teaching and learning.

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Title: Reviewing course design aimed at promoting student reflection and learning

Contribution type: Innovation

Contribution format: Presentation

Author(s): Lombard, S

Keywords: reflection, student learning, reflective practices, academic literacy development

Abstract:

The use of reflection as a transformative practice across several professions and fields has received much attention in the literature. Since John Dewey first introduced the term into the fields of education and psychology, the purposeful use of reflection has been the focus of different theorists and schools of thought, resulting in various perspectives on the meaning or description of the term (Dimova & Loughran, 2009; Quinton & Smallbone, 2010).

Reflection as a pedagogical practice is also used in the course design of an academic literacy support module for first-year students in an extended degree programme. Over the years, the number of reflective exercises has increased, and the aim has always been to use feedback to promote student reflection and learning – with a specific focus on the development of academic writing skills. However, as regular revision of course design is essential for successful teaching and learning, these reflective exercises also needed to be reviewed. Hence, the purpose of this study was to find useful, concise frameworks that could provide concretising guidelines towards reviewing the suitability and effectiveness of these exercises. The two specific frameworks decided upon were selected because both took various perspectives on reflection into account and, thus, provided a broader spectrum for evaluation and review (Ghaye & Lillyman, 2006; Leijen et al., 2009).

Using these frameworks to review the use of current reflective exercises in the course design has revealed how these practices can be elaborated upon to further enrich and enhance students' transformative learning experiences. In conclusion, reflecting on the use of reflective practices to promote student learning is, ultimately, as important as incorporating these practices.

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Title: Students' transition from extended to mainstream programmes at a South African university

Contribution type: Research

Contribution format: Presentation

Author(s): Mavunga, G

Keywords: extended diploma, students, transition, critical realism

Abstract:

Using critical realism as an analytical paradigm, and borrowing insights from decoloniality, this paper reports on a study carried out at a comprehensive South African university to establish students' experiences of the transition from extended to mainstream diploma programmes. Necessitated by a number of factors, some of which stem from the legacy of apartheid, extended diplomas offer students the opportunity to complete their studies in four instead of three years. Study participants were drawn from students enrolled in Engineering, Management and Humanities diploma programmes at three campuses of the university in 2016. Previous studies on extended diploma students had shown that while some students adjusted easily to mainstream programmes, others faced a number of challenges, which ultimately saw them dropping out of university. This study sought to establish the influence of collective and individual agency on the students' experiences of their transition to mainstream programmes. A qualitative approach was used, employing focus group interviews to gather data. The study results show that a combination of different forms of collective and individual agency influence students' transition to mainstream programmes. While some of the influences are positive, others are negative. In order for these forms of agency to be consistently relied on to mediate a seamless transition, the paper suggests, among other recommendations, that the institutional structures responsible for the students in the mainstream year be decolonised and capacitated.

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Title: Teamwork in online projects? Stimulating early "teamwork literacy" through scaffolding

Contribution type: Innovation

Contribution format: Presentation

Author(s): Müller, E; Fouche, L

Keywords: teamwork, online, projects, scaffold, discourse

Abstract:

The University of Pretoria offers a five-year Engineering extended degree programme, which includes Professional Orientation, a skills and practices-based core module. The theoretical underpinnings for Professional Orientation stem from the ideas behind the New Literacy Studies (Gee, 1991), which view literacy as a social practice rather than a specific skill set. Thus, different students come to university with different social practices and literacies, which we then aim to refine and develop into an academic literacy for Engineering.

In the first semester of Professional Orientation, students are introduced to entry-level academic, IT and language literacies required by engineers; in the second semester, these practices are applied and refined in projects representing a microcosm of the engineering environment. For the initial development of "teamwork literacy", students participate in compulsory workshops on effective teamwork, positive interpersonal communication, self-reflection, introductory research skills, and time management practices. Two scaffolded teamwork projects – GoGreen, and the capstone project called LEGO – are subsequently introduced.

Previously, both projects were run face-to-face, but due to the continued lockdown into the second semester of 2020, both had to be adjusted to accommodate the remote learning environment. Therefore, innovative changes to the delivery of content and project execution were made to be able to continue with the projects while still achieving the intended outcomes.

In GoGreen 2020, students worked in small, pre-assigned teams of three (instead of self-selected teams of four) to create a product or game using a recyclable material, and to raise community awareness online of the benefits of reducing, reusing and recycling. Students were simultaneously introduced to the concept of "green engineering" while learning how to conduct research, formulate a proposal, develop an idea into a project, and report back on their findings. This was extended in LEGO 2020, which required students to design a LEGO crane on an online platform (instead of with a physical LEGO kit) that achieved specific parameters. Students had to draw on the knowledge they had gained in Professional Orientation and basic science modules to complete the lifecycle of the project.

Online teamwork was facilitated to help the students, as prospective engineers, understand the importance of working together ethically and professionally as a team in an engineering environment (outlined in ECSA outcomes 8 and 10). The CDIO™ framework was used in both GoGreen and LEGO to expose students to the entire lifecycle of a project. Both self-reflections and iPeer assessments (as

reciprocal online assessment *for* learning) were completed at the end of the design and operate stages to stimulate behaviour change and encourage self-regulated learning while working remotely.

The teamwork practices introduced in these projects are later applied in a community-based project in the third year of study, in teamwork assignments as part of future Engineering modules, and in the engineering world of work. As evidenced in the overall project results and iPeer feedback, the current study on online team projects confirms that the use of a scaffolded approach promotes critical awareness of effective teamwork literacy and discourse.

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Title: The adaptation of a data-driven student success model for ECPs

Contribution type: Research

Contribution format: Presentation

Author(s): Majozi, P; Ogude, N

Keywords: student success, management, COVID-19, Extended Curriculum Programme, data analytics

Abstract:

University students may experience difficulty with their studies at different stages of the academic programme, yet do not always communicate this to the university. By the time academics and administrators become aware of these problems, it is often too late. In the 21st century, a substantial amount of data on students' study behaviour is captured online through online learning systems, which makes it possible to diagnose problems in time for action to be taken. In 2019, the University of Pretoria's Extended Curriculum Programmes (ECPs) developed a model for managing student success, which was fully implemented in early 2020. ECPs provide students who have potential, yet do not meet the minimum requirements, with an alternative pathway to their academic programme of choice. This model was dubbed the Mamelodi Referral System (M_RS) model (Ogude, Mathabathe, Majozi, Mthethwa & Meyer, 2020) after the Mamelodi campus that houses the ECPs feeding into the faculties of Natural and Agricultural Sciences, as well as Economics and Management Sciences. The M_RS model is a data-driven, systematic approach to the management of academic programmes. It was adapted from the student academic development and excellence model (SADEM), which was first developed institutionally in 2012 to guide and drive data-driven faculty-based student success initiatives (Ogude, Kilfoil & Du Plessis, 2012). This longitudinal study followed a critical participatory action research approach to examine the implementation, adoption and use of the M_RS model. We sought to answer the question: How effective was the adaptation of the M_RS in facilitating the management of ECPs during the pandemic? In answering this question, we looked at factors considered for the adaptation, as well as the new processes developed to meet the management team's demands in the face of the pandemic in 2020. This study provides insight into how high-stakes programmes could be managed and, in the process, argues for a robust model that is holistic in terms of stakeholder involvement, and is driven by data analytics. Findings indicate that the involvement of all key stakeholders speeds up decision-making; that data analytics provide early warning signs of students in academic distress; that the interface between academic and support staff such as faculty student advisors and data analysts is critical in offering early interventions, and that a centralised database system for managing evidence of student success interventions is key to the success of such a model.

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Title: The Mamelodi Referral System: Improving student advising towards academic excellence

Contribution type: Innovation

Contribution format: Presentation

Author(s): Meyer, I; Majozi, P

Keywords: data analytics, student advising, interventions, ECP, academic achievement

Abstract:

Using data analytics technology for the early identification of at-risk students to provide timeous academic advising is one of the best measures to aid student success (Phillips, 2013). Data analytics technology combined with student advising allows for targeted interventions, thus reducing student failure rates, preventing early dropouts and, consequently, increasing the retention rate (Lourens & Bleazard, 2016).

In 2019, the University of Pretoria (Mamelodi campus) developed the Mamelodi Referral System (M-RS), a data analytics system to assist academic advising towards student excellence. The Mamelodi campus is home to the Extended Curriculum Programmes (ECPs) of the University of Pretoria.

The timing turned out to be perfect, since the COVID-19 pandemic and subsequent lockdown in 2020 prevented students from having direct, face-to-face access to their faculty student advisors (FSAs).

Firstly, the M-RS enabled the FSAs to determine early on which students were struggling. Lecturers referred possible cases to the FSA team in real time, focusing on students who had been inactive for a week, missed a formal assessment and/or informed lecturers that they were having problems. The FSA team could then contact the student to identify the problem and provide specific assistance.

Secondly, the data analytics team developed a priority list based on specific criteria co-created with the FSA team. Initially (2020), the criteria were COVID-19-related (such as students without data, devices and electricity). These were later replaced with a new set of criteria to identify students that may need support, including returning students, late registrations, students scoring below 50% for a semester test, and students who missed a week's activities.

Thirdly, a policy was developed to outline the types of interventions that the FSA team could make available according to student risk factors, which were filtered into groups based on core module marks. In this way, excellent scholars too were supported to further enhance their academic performance.

These actions ensured that students' needs were identified early in the year. To develop graduate attributes, synchronous online workshops were also developed and presented to address students' identified academic and non-academic needs.

As with all other ECP campuses, the Mamelodi campus does not have any senior students. Therefore, the mentoring and supporting role of senior students is fulfilled by the FSA team. Students are not only first-years, but many are first-generation and hail from rural areas, making them less likely to ask for

assistance, or to know who to ask (Barry, Hudley, Kelly & Cho, 2009; Stebleton et al., 2014). The M-RS enabled the team to reach out to students as individuals, with empathy and humility, so as to help them reach higher academic achievement during the COVID-19 pandemic and beyond.

In this paper, we reflect on the student support interventions above, data analytics and its role in academic advising, as well as some of the new strategies planned for implementation in light of online teaching and learning.

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Title: The nexus between disability studies and decolonisation

Contribution type: Innovation

Contribution format: Presentation

Author(s): Fray, T

Keywords: disability studies, decolonisation, displacing race

Abstract:

In the wake of the 2015 #FeesMustFall national student protests, decolonisation has formed a key part of university strategic plans and curriculum review. Despite the fervour with which the term is discussed and engaged with in different departments and student quarters, a precise definition for this concept is lacking. This vacuum has allowed for the increasing din of populist rhetoric to occlude the possibilities of a rigorous definition for decolonisation, and, instead, to settle on vague presentiments that conflate decolonisation primarily with attending to racial inequality. The primacy of race as a marker of identity has rendered captive academic departments, student dialogues and institutional leadership spaces, resulting in shallow conceptions of decolonisation that fail to conceive of the multitude of ways, as a result of markers of identity, in which students and staff are excluded, discriminated against or left unsupported in the institutional environment.

Though ill-defined, decolonisation at its core is about the need for inclusivity and recognition of the varying needs of a diverse student and staff population. This necessarily requires that, in addition to discussions regarding racial inequality, we must include other markers of identity that define personhood. Therefore, this paper establishes a nexus between decolonisation and disability studies in an attempt to stretch the scope of our decolonial strategic plans, curriculum reviews and teaching methods to ensure that institutional transformation is as impactful as it can be. Analysing decolonisation from his own experiences as a visually impaired academic, Watermeyer (2018:69) writes “considering decolonisation from the minoritized identities [such as disability] is the ultimate test case for creating caring organisations and societies”.

This paper draws on the interdisciplinary field of disability studies, which “seeks to expand the ways that society defines, conceptualises and understands the meaning of disability” (Baglieri & Shapiro, 2017:13). This field intends to draw attention to the political, social and economic conditions that affect disability more so than the impairment itself. Application of the tenets of this model requires examining policies, practices and norms that render disability salient through their ingrained exclusionary interface. This study assesses current gaps in teaching preparation and training, and, on this basis, develops a guiding document that can be referred to by learning facilitators in the extended programme to ensure that classes and activities are designed according to the disability-spectrum accessibility specifications. As such, the study intends to bridge the gap between the policy-based, theoretical rights to education guaranteed to South African students via Education White Paper 6, and the tangible manifestation of those rights. Students with impairments deserve to enter classrooms and be taught by educators who render inclusivity a practicality. The goals of decolonisation mirror the social justice praxis of disability studies, as both aim to create institutional culture and practices that are inclusive for all, which will enrich the teaching and learning experience for both practitioners and students.

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Title: "The use of any language other than English and Afrikaans here feels barbaric": Investigating the language ideologies of ECP students in an English academic literacy course

Contribution type: Research

Contribution format: Presentation

Author(s): Bernard, T

Keywords: language ideologies, English academic literacy, qualitative data, narratives

Abstract:

Many scholars have highlighted that the persistent focus on skills development in ECPs works to construct students in deficit terms by placing the blame and responsibility on the students rather than on the factors that lead to significant educational inequalities (see, for example, Bernard, 2015; Leibowitz & Bozalek, 2015). This critique is also true of much of the research that documents approaches to the development of academic English skills among ECP students (Eybers, 2015). This research tends to pay insufficient attention to new paradigms in applied linguistics, such as the multi/plural turn (Kubota, 2016), translanguaging (Garcia & Wei, 2014) or the impact that language ideologies could have on language learning. In other contexts, researchers have found that language ideologies influence identity (Morita, 2004; Pavlenko & Norton, 2007); that they can affect a student's motivation to learn a language (Norton, 2001), and that, at a societal level, they have a significant impact on language policies (Norton, 1997). In an effort to investigate how language ideologies influence language learning in a higher education and ECP context, I collected the narratives of second-year ECP students enrolled in an English academic literacy course, with the aim of understanding participants' ideologies of English as well as other languages that form part of their linguistic repertoires. My guiding hypothesis was that these ideologies would not only reflect dominant ideologies circulating in South African society, but could also have a significant impact on student experiences and performance. In this paper, I present and discuss some of these narratives and the ideological representations contained therein. In bringing these representations to the fore, I not only emphasise the need to pay attention to our ideologies of languages and language practices, but also highlight the need to develop academic literacy courses that consider and attend to these ideologies, rather than courses that ignore or, even worse, reproduce them.

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Title: What would Fink do? Using Fink's model of significant learning in an extended curriculum module

Contribution type: Research

Contribution format: Presentation

Author(s): Qwabe, N; Chologi, K; Engelbrecht, R

Keywords: significant learning, extended curriculum module, Fink's taxonomy, intercultural communication

Abstract:

Significant learning creates lasting change in students by shaping how they integrate learnt information with their day-to-day lives and relate to the world around them. This study aims to use Fink's (2003) taxonomy of significant learning to redesign a first-year module in the extended curriculum to enhance student-centred learning. Extended modules are designed to enhance students' skills to complete their degrees successfully (Willmort & Perkin, 2015). This study focuses on the module Intercultural Communication. Culture distinctly defines our day-to-day lives through ideas and social behaviours that are learnt and passed down through generations. Through innovation and diffusion of different elements of culture and worldviews, this paper explores integrating Fink's taxonomy with the Intercultural Communication module to meet specific objectives laid out by the taxonomy, by requiring students to apply and integrate curriculum-inspired knowledge in real-life situations. This is done by integrating various strategies, such as dividing students into smaller learning groups, placing more emphasis on basic theories and concepts instead of large chunks of information, and designing assessments that require students to apply content to their own lives and the lives of those around them. According to the taxonomy, creating a platform of learning that goes beyond instilling knowledge or applying skills develops reflective students who accept responsibility for their learning. The taxonomy has six categories of learning, which will be integrated with the Intercultural Communication module. Firstly, foundational knowledge, being students' basic knowledge about the module, will be incorporated by selecting only key and relevant ideas of Intercultural Communication and anchoring on those as the core perspectives of the course. Secondly, the category of application includes using critical, creative and practical thinking to teach students how to develop new skills. In this regard, we seek to incorporate creative, analytical and practical knowledge about Intercultural Communication that will enable students to analyse, evaluate, imagine and manage complex intercultural situations. Thirdly, the element of integration, or the ability to connect specific or universal ideas to the content, will be incorporated by structuring curriculum design to enable our students to find connections, similarities and interactions between the content and their own personal and social lives. Under the fourth category, human dimension, students get to learn something about themselves and other people, which helps them understand why others behave the way they do. Through this element, we seek to teach students more about themselves and others by giving them a heightened appreciation for their own culture, and tolerance and appreciation for cultures different from theirs. The fifth element, caring, includes instilling caring about others, specific issues and different concepts. By integrating the taxonomy with the module, we hope to see students become more open and understanding towards cultural differences by creating rich learning experiences that would enable students to achieve the different categories of significant learning simultaneously. In addition, the

intention is to develop students into better learners by providing them with opportunities to reflect on what and how they are learning, and the significance thereof.

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Title: With dreams in our hands: An African feminist approach to an ECP project

Contribution type: Research

Contribution format: Presentation

Author(s): Knowles, C

Keywords: African feminism, decolonial knowledge-making, intersectionality, positionality

Abstract:

This paper introduces a research project that works with former Extended Curriculum Programme (ECP) students to make knowledge that emerges through online, multimodal collaborations. The focus here is on the choice of theory, which sets up the methodology and ethical considerations for the project. Knowledge-making is not politically neutral, and the project and paper are, in part, responding to the calls of the 2015/16 South African student protesters to decolonise and transform university curricula. The project draws on African feminist ideas, emphasising the intersectional oppressions of colonialism, capitalism and patriarchy that continue to influence theoretical choices in the knowledge hierarchies of South African and African universities. The race, class and gender inequalities that drive success or failure at university and in society become some of the topics addressed in the project, where former students, as co-researchers, collaborate to devise the topics, responses and kinds of dissemination. Co-researchers respond to one another's submissions on topics they have devised, review one another's work, and collaborate in paper-writing teams and an artwork that draw on the data of the submissions and reviews. Using online workshops throughout the ongoing project, we have jointly devised principles of engagement, including how to respond to one another's work, and how to work with the data. Peggy Ntseane's (2011) overlapping principles of a collective worldview, spirituality, a shared orientation to knowledge as well as communal knowledge-making are motifs that influence how the project is imagined and run. My positionality as lead researcher and former lecturer of the co-researchers is navigated using African feminist guidance, which also informs the ethical principles of the project. The global COVID-19 pandemic has affected how the project is run, and the paper explains how I navigated the shift to digital for what should have been an immersive experience to set up connections and a sense of community among the co-researchers.

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