



2017
**Teaching and Learning
Colloquium**

“ *Re-imagining the 21st century
curriculum and learning
environments: the quest for
student success* **”**

**Elangeni Hotel, Durban
5 - 6 April 2017**

Hosted by the Teaching and Learning Development Centre (TLDC)

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The 2017 Colloquium Planning Team



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Welcome from the Conference Chair

One of the Teaching and Learning Development Centre's (TLDC) founding principles and strategic goals was to institutionalise the scholarship of teaching and learning and student support at Mangosuthu University of Technology. In pursuit of this, the last five years have been busy and productive ones for the Centre. In the same year of the TLDC's establishment (2013), we hosted our first Teaching and Learning Colloquium, a world-class event with an impressive line-up of distinguished keynote speakers. From that first Colloquium we have not looked back, and the event has continued to grow and break new ground.

We would all agree that 2016 was a very challenging year for higher education in South Africa, with students demanding free education and calls being made for the decolonisation of the curriculum. However, I do wish to say that in order to address the notion of decolonising the curriculum, it is imperative to understand the history of colonialism and how it continues to pervade our reality in spite of independence and democratic rule. As we know, the mere mention of the word "colonialism" (depending on which side your views lean) has the potential to set social media alight and lead to other consequences including possible career/political suicide. By design, we have included the "decolonisation of the curriculum" theme in our paper presentations and I do not want to pre-empt those discussions.

Colloquium 2017 is special to us because it represents the 5th anniversary of the event. It is also a representation of the power of vision. MUT is proud to be the custodian of this world-class gathering – one which has now become a flagship event on our teaching and learning calendar and that of many institutions in the higher education sector. The Teaching and Learning Colloquium has only one path and that is growth and excellence. We cannot afford to look back.

I welcome you all to the warm city of Durban. Enjoy our hospitality and create new friendships. We are looking forward to robust and intellectually stimulating discussions. Siyanamukela. Re a le amogela!

Dr JM Makua
Senior Director and Conference Chair
Teaching and Learning Development Centre (TLDC)

Teaching and Learning Colloquium: Four years and going strong

1st Teaching and Learning Colloquium 2013

Enhancing the quality of Teaching and Learning in higher education

The Colloquium represented the breaking of new ground at MUT and set the stage for the development and promotion of the scholarship of teaching and learning.

2nd Teaching and Learning Colloquium 2014

Promoting the Scholarship of Teaching and Learning (SoTL)

An apt response to the HEQC Audit Panel's concerns in 2011 regarding MUT's lack of engagement with the scholarship of teaching and learning.

3rd Teaching and Learning Colloquium 2015

Student Retention and Success in Higher Education

Given students' general lack of preparation for higher education, the CHE Task Team on Undergraduate Curriculum Structure suggested that one year be added to the curriculum to enhance student preparation for success in their academic programmes.

4th Teaching and Learning Colloquium 2016

Re-envisioning the teaching and assessment of 21st century skills: the challenge of relevance

In designing curriculum we should be very clear about the skills, knowledge, values and attitudes that we want our graduates to leave with, as these surely underpin the manifestation of contributions to the sociocultural and economic capital we strive to engender in students.



2017

Teaching and Learning Colloquium

THEME

“ *Re-imagining the 21st century curriculum and learning environments: the quest for student success* ”

SUB-THEMES

- *Graduate attributes of a 21st century student*
- *Responsive curriculum*
- *Decolonisation of the curriculum*
- *Student success*
- *Integrated interventions for student academic support*
- *Student data analytics*
- *E-learning*
- *Assessment in education*

Sub-Themes in Context

STUDENT DATA ANALYTICS

Evidence-based decision-making and the processes that gather, present, and use that evidence base.

RESPONSIVE CURRICULUM

“Responsiveness should also include an appreciation of the longer-term demands on higher education that flow from a more universal, wider-ranging view of its nature and role in human affairs. The framework has to provide enough room for the kind of freedom that will ensure autonomous academic inputs and discretion, so that those longer-term objectives of higher education which the market and the immediate social environment do not and cannot register, can be attended to.”
(NCHE Report, 1996:80)

ASSESSMENT IN EDUCATION

Rethinking the purposes of assessment: summative, formative and sustainable assessment. For many though, the emphasis is still on the assessment of learning rather than assessment for learning. Assessment has a powerful effect on what students do and how they do it. It communicates to them what they can and cannot succeed in doing; it builds or undermines their confidence.

INTEGRATED INTERVENTIONS FOR STUDENT ACADEMIC SUPPORT

Key forces for change have been the impetus of national reform in higher education, reinforcing institutional commitment to accommodating a more diverse student intake in well-designed and flexible curricula which foster students' academic development and so offer a chance of redress with success.

**GRADUATE
ATTRIBUTES OF A
21ST CENTURY STUDENT**

“Graduates with the skills and competencies that build the foundations for lifelong learning, including critical, analytical, problem-solving and communication skills, as well as the ability to deal with change and diversity, in particular, the tolerance of different views and ideas...” (Education White Paper 3 - A Programme for Higher Education Transformation, 1997).

E-LEARNING

E-learning refers to the use of technology to design, deliver, administer, facilitate and support learning. The term covers a wide set of applications, benefits and processes including computer-based learning, web-based learning and mobile learning.

STUDENT SUCCESS

Higher Education South Africa (HESA) reports that 35% of first-years drop out after their first year (Sapa 2008). Breier and Mabizela (2007:281) found that only 15% of students who enrol, complete their degree in the designated time; 30% drop out after the first year and a further 20% drop out after their second or third year.

**DECOLONISATION
OF THE CURRICULUM**

The call for decolonisation is resonating in universities across the globe today. Some critical questions to ask of decolonising knowledge in the academy are, firstly, why is the demand for decolonisation being heard so widely in universities today? Second, what place does decolonising the curriculum have in these broader demands for decolonising some universities? Third, what are the experiences with decolonising the university curriculum in different parts of the world? Fourth, what would it mean to decolonise the curriculum in South African universities?

General Information

REGISTRATION DESK

WEDNESDAY 5 APRIL	07H00 - 16H00	BANQUETING FOYER
THURSDAY 6 APRIL	07H00 – 15H00	BANQUETING FOYER

VENUES

CONFERENCE VENUE	THE SOUTHERN SUN (ELANGENI) HOTEL
5 APRIL 2017	Opening and Welcome GREAT ILANGA
	Workshop VENUE 1: GREAT ILANGA VENUE 2: SMALL ILANGA
	Tea break BANQUETING FOYER
	Parallel sessions (breakaway venues) SMALL ILANGA 1 SMALL ILANGA 2 GREAT ILANGA
	Lunch LINGELA RESTAURANT
	Cocktail event SMALL ILANGA
	Opening and Welcome GREAT ILANGA
6 APRIL 2017	1st Keynote address GREAT ILANGA
	Tea break BANQUETING FOYER
	2nd Keynote address GREAT ILANGA
	Lunch LINGELA RESTAURANT
	Poster Sessions GREAT ILANGA
	3rd Keynote address GREAT ILANGA

We are on social media

Follow, 'like' and share the Colloquium on social media!

Facebook: <https://www.facebook.com/MUT-Teaching-and-Learning-Colloquium>

YouTube: MUT: Teaching and Learning Development Centre (TLDC)

Language

The official Conference language will be English.

Colloquium Programme

5 April 2017 (MORNING SESSIONS)

07h00 - 16h00

REGISTRATION

08h30 - 09h00

WELCOME

TIME	VENUE	WORKSHOP
09h00 - 10h30	Great Ilanga	Teaching with Technology - Dr Arno Louw
	Small Ilanga	Responsive Curriculum - Prof Dr. Helen Bond

10h30 - 10h50

TEA BREAK

TIME	VENUE	WORKSHOP
10h50 - 11h50	Great Ilanga	Teaching with Technology - Dr Arno Louw
	Small Ilanga	Responsive Curriculum - Prof Dr. Helen Bond

PARALLEL PAPER PRESENTATIONS

TIME	<i>Small Ilanga 1</i> Ms A. Ramrung E-Learning	<i>Small Ilanga 2</i> Mr N. Fuyane Responsive curriculum	<i>Great Ilanga</i> Mr D. Hove Student Data Analytics
11h50 – 12h10	F. Marimuthu, U. Ramraj	T.P. Kheswa	W.J. Dlamini

12h15 - 13h00

LUNCH

Colloquium Programme

5 April 2017 (AFTERNOON SESSIONS)

TIME	<i>Small Ilanga 1</i> Prof S. Ngcobo E-Learning	<i>Small Ilanga 2</i> Mr V. Mjijima Integrated Interventions / Assessment	<i>Great Ilanga</i> Dr M.M. Chili Graduate Attributes
13h00 – 13h20	U. Ramraj, F. Marimuthu	A. Ramrung	R. Govender
13h20 – 13h40	G.M. Naidoo	A. Schoeman	M.R. Sibucashe
13h40 - 14h00	A.M. Msomi	A. Krishnannair	F. Nofemela
14h00 - 14h20	A.S. Maleshoane	G.D. Arthur	M. Livingstone
14h20 - 14h40	Z.T. Sibaya	G.P. Rudolph (P1)	R. Sebolao
14h40 - 15h00	T.J. Mokoma	M. Mathunjwa	N. Fuyane
15h00-15h15 TEA BREAK			
	<i>Small Ilanga 1</i> Dr G.M. Naidoo E-Learning / Decolonisation of the Curriculum	<i>Small Ilanga 2</i> Dr R. Sebolao Integrated Interventions / Assessment	<i>Great Ilanga</i> Prof A.M. Msomi Student Success
15h15 - 15h35	L.D. Naidoo	M. Lekoa	F.N. Fon
15h35 - 15h55	A. Akpome	R. Dunpall	J.J. Msane
15h55 - 16h15	S. Ngobeni	V.X. Mhlongo	R. Maharaj
16h15 – 16h35	N. Madondo	P. Mwipikeni	R. Govender
16h35 – 16h55	N.K. Ndwandwe	G.P. Rudolph (P2)	S. Makhanya

17h30 - 19h00

COCKTAIL EVENT

Colloquium Programme

6 April 2017

07h00 - 15h00	REGISTRATION
09h00 - 09h30	WELCOME

TIME	KEYNOTE ADDRESS	
09h30 - 10h30	Prof Mark Hay	1st Keynote address
10h30 - 11h00	TEA BREAK	
11h00 - 12h00	Prof Helen Bond	2nd Keynote address
12h00 - 13h00	LUNCH	
13h00 - 13h45	Poster Presentations	
13h45 - 15h00	Prof Mahlapahlapana J. Themane	3rd Keynote address
15h00	Closing	

Speaker Profiles: Keynote Speakers



Prof Mark Hay

Prof Mark Hay is focused on incorporating insights and lessons on good practice in higher education from his wide-ranging experience in South Africa, Australia and a number of quality assurance visits to universities in the East (including China, South Korea, Singapore, Malaysia and Vietnam), Europe and the USA, where he attained his doctorate. He is concerned about ensuring high quality education through the production of graduates with positive graduate attributes (knowledge, skills, qualities and attitudes needed for the workplace) and ensuring that each university is effective and efficient in ensuring its academic standards and processes.

Prof Hay is presently employed at Tshwane University of Technology (TUT) where he provides strategic support to the Vice-Chancellor. In the context of a developing transformation narrative in South African higher education and at TUT, he is focused on a comprehensive conceptualisation of a transformation narrative and its implications for meaningful implementation in the core functions and operations of a university, particularly for student success. An aspect of this is exploring what decolonisation and Africanisation of the curriculum mean in (university of technology) programmes.

Prof Hay has held the posts of Executive Director: Quality Assurance at the Council on Higher Education (CHE) and before that was an audit director at the Australian Universities Quality Agency (AUQA). Mark has broad international experience in national and institutional higher education quality assurance systems, assisting in the development of contextually-integrated institutional and national quality assurance mandates.



Prof Dr. Helen Bond

Prof Dr. Helen Bond has extensive experience in education and human development in fragile contexts in Sub-Saharan Africa, India, Bangladesh and the United States of America. She has a doctoral degree in Human Development, a Master's degree in Communication and a Bachelor of Science degree in Education. Her doctoral dissertation research focused on human rights education in Ghana, West Africa, which included fieldwork in the region.

Prof Dr. Helen Bond currently serves as an Associate Professor in the Department of Curriculum and Instruction in the School of Education at Howard University in Washington, D.C. She also serves as Associate Director of the Center for Excellence in Teaching, Learning and Assessment (CETLA). Her areas of expertise are human development, teacher development, refugee education, education in emergencies, human rights education, and the education of women and girls.

Prof Dr. Helen Bond has also served as an international expert in teacher development with the United Nations Children's Fund (UNICEF), the United Nations High Commissioner for Refugees (UNHCR), the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the United Nations Development Programme (UNDP), providing expertise in the areas of education and human development. As part of her work with the UNDP in Ethiopia in 2008, she collaborated with the Ethiopian Ministry of Education and a national expert to set up a teacher licensing system as part of a wider education quality reform initiative in Ethiopia. In 2013-14 she conducted a refugee teacher education programme along the borders of the Somali region of Ethiopia. In 2014-2015, she then assisted UNICEF's West and Central Africa Regional Office (WCARO) with the post-Ebola effort by helping to develop a literacy, numeracy and life skill curriculum that would enable youth to catch up on missed education.

Prof Dr. Helen Bond has published widely. She was one of the authors of *Teaching Respect for All: Implementation Guide* published by UNESCO in 2014 to counteract discrimination both in and through education. In 2014 she was selected as a Fellow at the Georg Eckert Institute for International Textbook Research in Braunschweig Germany. She is currently researching the historical memory and representation of the U.S. Civil Rights Movement in school textbooks around the world for a forthcoming book.

**Prof Mahlapahlapana J. Themane**

Prof Themane is a full professor of education at the University of Limpopo, specialising in curriculum studies with a focus on teaching and learning as curriculum issues (inclusive pedagogy). He is also the chair of research in the School of Education, with a wide experience of post-graduate supervision. Prof Themane is involved in several national and international research activities, which include inclusive education, HIV and AIDS, multiple literacies and schools as enabling environments.

Prof Themane has wide experience in issues surrounding teaching and learning in higher education and has served on several committees in this regard. He served as a member of the Senate Teaching and Learning Committee at the University of Limpopo from 2013 to 2015. He was a coordinator of Teaching Practice in the School of Education from 2005 to 2015 and has been a member of the Limpopo Province Teachers' Development Committee since 2012. He is also currently a member of the University Task Team on the Integration of HIV and AIDS into the Curriculum and a member of the Turfloop Ethics Research Committee, as a qualitative research specialist.

Furthermore, Prof Themane has been involved in a number of programme development projects, including the development of teaching and learning materials: the Bachelor of Education (Foundation Phase) in collaboration with Wits University, the Post Graduate Certificate in Education, the Advanced Certificate in Life Orientation in collaboration with the Common Wealth of Learning in Canada, and the development of short courses (Curriculum Development Materials, Action Research for Teachers and Inclusive Education).

Speaker Profiles: Workshop Facilitators



Dr Arno Louw

Dr Arno Louw is a Teaching and Learning Consultant (Instructional Design) at the Centre for Academic Technologies (CAT) at the University of Johannesburg (UJ). He has been involved in curriculum development and the implementation and evaluation of courses encompassing computer-based education. Dr Louw has been involved in projects at UJ (previously RAU) since 1998 and co-authored and researched computer-based textbooks for the Gauteng Department of Education. His research and course development role included the training of educators and subject facilitators, presentation and implementation of research, as well as the presentation and publication of papers on the implementation of web-based education in the school system. During this time he was an educator at Metropolitan RAUCALL (UJ Academy) and a part-time lecturer at the University of Johannesburg.

Dr Louw holds a Master's degree focusing on web-based education and a doctoral degree with research in the same field. His research and implementation work focuses on e-learning in the field of the professional development of teaching staff and academics at the University of Johannesburg. Currently, his research focuses on pedagogies related to tablet use in the classroom, the development of educational apps, the Diffusion Model and the Technology Acceptance Model (TAM). In 2017 Arno was appointed as Senior Specialist: Instructional Design (E-learning) and he manages the Centre for Academic Technologies' innovative e-learning developmental laboratory (CAT-Lab) at the University of Johannesburg.

Prof Dr. Helen Bond

See Prof Dr. Helen Bond 's profile under Keynote Speakers above

Presenters and Titles - Papers and Poster Presentations

Abstract Submissions

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Dlamini, W.J., Mr dlaminiw@unizulu.ac.za	Using data analytics for student success	Student data analytics	52
Dunpall, R., Dr DunpallR@unizulu.ac.za	Initiating new benchmarks in higher education: Academic support and student advancement	Integrated interventions for student academic support	49
Fon, F.N., Dr FonF@unizulu.ac.za	Effects of reward inclusion during active learning on class pass rates and grade improvement	Student success	53
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Govender, Rajendran rgovender@uwc.ac.za	A pedagogical contribution to pre-service teachers' mathematical success	Responsive curriculum	51
Govender, Rosaline, Dr rosalineg@dut.ac.za	Inducting students into the community of Higher Education	Student success	54
Kheswa, T.P. KheswaT@unizulu.ac.za	Reflecting on Work Integrated Learning in Consumer Sciences	Responsive curriculum	50

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Livingstone, Mark, Prof livingstonem@unizulu.ac.za	Including pervasive skills in an Accounting curriculum at a rural South African university	Graduate attributes of a 21st century student	38
Madondo, N. n.madondo@ru.ac.za	On understanding the influence of rurality in second year Science students' transition from secondary to university education.	Decolonisation of the curriculum	26
Maharaj, R., Prof roshm@richfield.ac.za	Interrogating quality teaching in higher education	Student success	55
Makhanya, S., Ms siza@mut.ac.za	Improving teaching and learning at a clothing practical class of a university of technology	Student success	57
Marimuthu, F. ferinas@dut.ac.za, Ramraj, U. upaasnar@dut.ac.za	'Open-book, open web' examination: innovation in assessment using ICTs	E-learning	32
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Mphumela, Nozimanga, Ms mphumelan@cut.ac.za	Exploration of the curriculum development process at CUT for designing a curriculum development strategy to enhance academics' capacity in developing curriculum	POSTER	59
Msane, Jotham J. msane@mut.ac.za	The effect of psychosocial factors in determining success in Computer Programming: Case of a previously disadvantaged University of Technology	Student success	56
Msomi, A.M., Prof alfred@mut.ac.za	The interaction of first year students in Mathematics using an e-Learning platform in the classroom at a University of Technology	E-learning	36
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Naidoo G.M., Dr Naidoog@unizulu.ac.za	Digital Communication: An evaluation of the digital divide within the context of curriculum delivery in a rural university in KwaZulu-Natal	E-learning	30
Naidoo, L.D., Prof LNaidoo@mut.ac.za	Enhancing the 21st century classroom: Integrating technology into the teaching environment	E-learning	33
Ndwandwe, N.K. ndwandwen@unizulu.ac.za	Integrating indigenous knowledge systems and Western food systems: Decolonisation of Food Science-related curriculum	Decolonisation of the curriculum	28

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Ngobeni, Solani Solani.ngobeni@ump.ac.za	The university as a site of psychological violence	Decolonisation of the curriculum	29
Nofemela, Fundiswa, Ms nofemela@mut.ac.za	The potential of a kaizen-based training to enhance employability of graduates from a university of technology in South Africa	Graduate attributes of a 21st century student	42
Ramraj, U. upaasnar@dut.ac.za, Marimuthu, F. ferinas@dut.ac.za	The E-Learning Journey: From facilitator to student	E-learning	34
Ramrung, Arthi, Ms ramrunnga@mut.ac.za	Combining academic and psycho-social support through discipline-specific peer-mentorship	Integrated interventions for student academic support	43
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Rudolph, G.P. godfrey.rudolph@spu.ac.za	The influence of collaborative group assessment on student learning (P2)	Assessment in education	25
Schoeman, A. alta@stellenboschacademy.co.za	Brave new world: An urgent case for student support	Integrated interventions for student academic support	44

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Sebolao, R., Dr rsebolao@cut.ac.za	Exploring students' reflections on learning through a peer mentorship programme	Graduate attributes of a 21st century student	41
Sepeame, Maleshoane Anastacia SepeameM@Unizulu.ac.za	Investigating students' perceptions of e-learning in the Department of Information Studies, University of Zululand: An on-going research	E-learning	35
Sibaya, Zola T., Ms zola@mut.ac.za	Students' perception of Blackboard Learning Management System at Mangosuthu University of Technology	E-learning	31
Sibuqashe, M.R., Mr sibuqasheM@unizulu.ac.za	Integration of graduate attributes into the curriculum	Graduate attributes of a 21st century student	39

Paper Abstracts

Assessment and Activation of Prior Knowledge to Promote New Learning (P1)

G.P. Rudolph

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Theme: Assessment in education

Abstract

The connection to students' prior knowledge will not be made if it is not activated effectively by lecturers to facilitate the integration of new knowledge. It is crucial that prerequisite requirements are met to prevent inadequate prior knowledge from hindering new learning. Students' ability to draw on their prior knowledge in order to learn new knowledge, depends on the lecturer to effectively assess and activate it to avoid confusion amongst students. Research in learning theory suggest that students should be asked questions that are pitched at the right level to activate retention in order to aid the integration and retaining of new information. The purpose of this study is to investigate how the quality of prior knowledge in a prerequisite topic will help meet the learning requirements of a new topic, while taking into account the assessing and activation of relevant and accurate prior knowledge. The study was conducted at SPU using the first year level ICT Diploma students as a pilot group. Thirty-nine undergraduates were divided into three equal groups. Group A was taught the basic HTML tags and the practical application in website design. Group B was taught the same concepts but without the practical application thereof. Group C was taught animation, one of the multimedia elements in website design, which is different from basic HTML tags. Seven days after the lectures, all three groups were taught the topic on advanced HTML5 tags and the practical application thereof in website design. It was invalidly assumed that participants in all three groups had mastered the basic HTML tags as prerequisite. A subjective test was administered to all participants. The study shows that it is crucial for lecturers to lay a solid foundation in prerequisite topics. Insufficient or inaccurate prior knowledge will distort the understanding of incoming information and new learning. Furthermore, the study emphasises the importance of effectively measuring accurate prior knowledge and recommends methods on how to activate it to promote new learning.

Keywords: prior knowledge, new learning, information processing

Knowledge, Assessment, Power and Ubuntu

P. Mwipikeni

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Theme: Assessment in education

Abstract

For Nietzsche there is a link between knowledge and interests. Foucault holds that knowledge serves the interests of holders of power. Such philosophical concepts question the possibility of objectivity with regard to knowledge and engender doubt with regard to truth. Also, Mbembe holds that in a world that is dominated by finance capital, knowledge has been reduced to serve the interests of finance capital (Mail and Guardian, 22-12-2016). For Mbembe, finance capital has emerged as the dominant hegemonic “global secular theology” (ibid). Finance capital is dominant in such a way that it sets and determines the agenda and functions of culture, politics, knowledge and education. In this context, knowledge and assessment can be mere tools that serve the interests of finance capital. Moreover, in this case, assessment takes what Barnett refers to as the “pernicious” form (2007:35). For Barnett, such assessment “disciplines” or gives students a framework that imposes and inculcates a way of thinking (ibid). Furthermore, such a harmful form of assessment cripples critical thinking and associates knowledge and education goals with the interest of having a qualification that promises a reward of a paying job from finance capital. Therefore, in education there is an aggressive, individualistic, egoistic, competitive relationship among learners to score high marks that put some learners in a better position to get the rewards of paying jobs from finance capital. So assessment is a tool of objectifying education, learning and students to serve the interests of finance capital. In this work, I seek to show that assessment based on Metz’s notion of the virtue of Ubuntu of valuing human relationships and a learning community based on love and goodwill among the learners and lecturers, aligns assessment, education, learning with shared goals of attaining emancipatory truth and knowledge.

Keywords: assessment, private capital, knowledge, power

The Influence of Collaborative Group Assessment on Student Learning (P2)

G.P. Rudolph

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Theme: Assessment in education

Abstract

This exploratory qualitative study was designed to stimulate students to collaborate by engaging with each other and promote learning during assessment. Students will not offer to help their peers by working collaboratively, unless there are benefits offered to them in the form of explicit rewards or incentives. The purpose of this study is to investigate the influence or effects that collaborative testing has on student learning and to encourage cooperative learning. The study population includes all current first year Applications Development students of Sol Plaatje University. Students were given a summative assessment to answer individually, of which an average mark was calculated, based on the individual marks achieved by each student. After completion of the individual assessment, one copy of a test paper and clear answer sheet were given to randomly selected groups of 5–6 students. The group test questions were different but covered the same content as that of the test completed by students individually. If the group test mark is 75% or more, and higher than the individual average mark, the difference will be added to the marks of each individual. Students who obtained less than 50% in the individual assessment, will be restricted to a maximum score of 50% as a final mark after the adjustment. In addition to the tests, feedback from students were also obtained through a survey questionnaire. The aim of the survey was to examine student perceptions of how group examination affects their motivation and engagement with learning. The findings of this study suggest that group testing enhances the student learning experience, providing under-engaged students with the opportunity to practise critical thinking skills and improve their understanding of specific course content through active engagement.

Keywords: cooperative learning, group testing, student collaboration

On Understanding the Influence of Rurality in Second Year Science Students' Transition from Secondary to University Education

N. Madondo
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Theme: Decolonisation of the curriculum

Abstract

It may be argued that the influence of rurality on learning within formal education is not sufficiently investigated. Studies on rurality tend to ignore its connection to formal learning, view it from the deficit point of view, romanticise it, or even worse, homogenise it as if both contexts and experiences of rurality are the same, hence, a research idea is presented with a focus on the dimensions of rurality and its influence on the transitions to higher education amongst students from rural backgrounds. In the context where issues of equity of access to higher education and academic success are highly politicised, the concept of rurality in relation to theories on learning cannot be ignored. While rurality is a particular condition in the global South, given the legacy of colonialism and land confiscation, international literature is useful. This proposed study, however, will focus on the specificities of the condition as it is experienced by second year science students at a South African university. The study will investigate how students from rural areas learnt in the home, community and school and how this subsequently influenced their learning at university. Autoethnography and Systemic Functional Linguistics are adopted as conceptual and theoretical frameworks. An important aspect of this participatory research is the role that will be played by participants. For data generation, these participants will generate graphic, oral and textual data about their own experiences – retrospectively about their learning practices in rural areas and currently about their learning at university. Lecturers who teach these students are envisaged to be other study participants. They will serve to demonstrate the extent to which lecturers understand and appreciate (or not) the knowledge resources that students from rural contexts bring to their classrooms.

Key words: rurality, academic success, transition and curriculum

Achille Mbembe and the Re-Worlding of African(ist) Thought

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Theme: Decolonisation of the curriculum

Abstract

This paper explores the scholarship of the Cameroonian-born philosopher and literary critic, Achille Mbembe in order to foreground his contributions to the re-‘worlding’ (à la Heidegger) of African thought and experience in the postcolonial and postmodern period. The paper focuses on Mbembe’s major work, *On the Postcolony* (2001), as well as the essays, “African Modes of Self-Writing” (2001) and *Johannesburg: The Elusive Metropolis* (2008) which he co-authors with Sarah Nuttall. I situate Mbembe’s scholarship within the contemporary Africanist traditions reinforced most forcefully by Valentin Mundimbe’s influential work, *The Invention of Africa* (1988), and demonstrate the ways in which Mbembe offers a highly critical and complex effort (in terms of method and scope) to co-centre African(ist) thought within global knowledge paradigms. In these ways, this paper also hopes to highlight how Mbembe’s scholarship can contribute significantly to ongoing efforts at the decolonisation of philosophy in general and the de-centralisation of knowledge production within the unique political and intellectual contexts of late post-coloniality in particular.

Keywords: Achille Mbembe, African philosophy, literary criticism, urban studies, decolonisation

Integrating Indigenous Knowledge Systems and Western Food Systems: Decolonisation of Food Science-Related Curriculum

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Theme: Decolonisation of the curriculum

Abstract

The Discipline of Consumer Science is one of many colonised academic programmes that promote Western knowledge and practices, especially through Food Science and Culinary studies related modules. Teaching and learning of these courses has been merely perpetuating learners to be consumers of Western knowledge. A pilot study was conducted to investigate how the Consumer Science discipline can integrate Indigenous Knowledge Systems (IKS) with Western curriculum to decolonise it and thereby recognise local cultural knowing as a legitimate source of knowledge. A pilot case-study was conducted using Participatory Rural Appraisal with seven interdisciplinary academics (Agriculture, Consumer Science and Research office) and six community members (three elders and three youth members). In-depth interviews, using a phenomenological research approach complemented by observations, aided in the identification of similarities and contradictions between indigenous and Western food recipe development and preparation. The indigenous-based knowledge was documented and processes were recognised, validated and coordinated with Western methodologies. The concept that is emerging is referred to as 'Interfacing Indigenous Knowledge with Western-based Food Sciences'. The Consumer Science discipline is creating curriculum space to proclaim IKS in order to develop a relevant curriculum that values IKS and contests perceptions of it being 'non-science'. Arising from the study, there was an integration of IK-based and westernised food processing technologies, attitude change, knowledge exchange and skills transfer. Findings further indicated enhanced nutritional density of the products. 'Interfacing Indigenous Knowledge with Western-based Food Sciences' creates an opportunity for further recipe modification and the development of appealing ethnic tastes to reclaim unique indigenous identities. The discipline intends to pioneer a paradigm shift from the existing non-recognition of IK as science and develop leading scholarship in the area. However, it should be noted that higher learning systems and processes are still hostile towards legitimisation of this enterprise.

Keywords: Recipe development, IKS, Science, Decolonisation, Participatory Rural Appraisal

The University as a Site of Psychological Violence

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Theme: Decolonisation of the curriculum

Abstract

This paper seeks to explore the notion of how the university curriculum continues to be used as an instrument of psychological violence and how it can be decolonised and be used as an instrument of affirmation instead. The paper will do this through a comparative analysis of the curriculum of two university departments, namely the English Department and the Department of African Literature at the University of the Witwatersrand, Johannesburg. In the English Department, the preponderance of prescribed (mostly literary) texts from the metropolis of the Americas and Europe, particularly the United Kingdom, has led to the alienation of most African students and low enrolments thereof. Conversely, the Department of African Literature is playing a pivotal role as a countervailing force that is showcasing the centrality of African Literature in knowledge production and not necessarily an appendage of English Literature. To all intents and purposes, most of our university curriculum is still dominated by texts from America and Europe because knowledge from the North is seen as superior and universal, and knowledge from the South is seen as inferior. There is a need to mainstream knowledge from the South in our university curriculum. For instance, students reading for English literature should be introduced to the works of Chinua Achebe, Wole Soyinka, Lesego Rampolokeng, Phaswane Mpe, William Shakespeare, Ngugi wa Thiong'o, Mariama Ba, etc. The call for the decolonisation of the university curriculum does not mean doing away with William Shakespeare and replacing him with O.K. Matsepe, but it means exposing learners/students to a multiplicity of voices. It does not mean the replacement of the North by the South; it cannot be a Manichean binary of either/or, but a holistic approach which encompasses a whole range of experiences.

Perhaps universities need to relook at the manner in which lecturers prescribe teaching and learning materials. Can we still afford a situation where the lecturer single-handedly decides which books to prescribe and which not to prescribe? Perhaps we should have prescription committees which include both lecturers and outside assessors from other universities and research institutes in order to make sure that we have inclusive curricula. Moreover, we need to cultivate a new cohort of academics who have been exposed to a multiplicity of methodologies and a variety of teaching and learning materials.

Keywords: decolonisation, curriculum, psychological violence

Digital Communication: An Evaluation of the Digital Divide Within the Context of Curriculum Delivery in a Rural University in KwaZulu-Natal

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Theme: E-learning

Abstract

Electronic learning was frugally used in the learning environment up until the last two decades. Subsequently, and more importantly, electronic learning (eLearning) has been exhaustively used for teaching and learning by millions of people across the world. A large number of people have had access to quality education through the digitisation of eLearning via Web 2.0. This study adopts a constructivist approach to understanding not just how eLearning can be integrated into a rural university's curriculum, but more importantly how to bridge the gap that now exists between hundreds of people who refused to embrace eLearning in its initial stages of implementation. Living in an era where major electronic changes are occurring, we have to contend with 'digital aliens', 'digital immigrants' and 'digital natives' and make attempts to level the playing field. This study focused on lecturers who do not know how to use a computer. The University spends many hours getting first-year students to learn the basics of computer usage, but very little is done to provide lecturers with computer skills. Many of these lecturers fall into the category of 'digital aliens' and they face two major problems which they are probably unaware of: first, the problem of learning the basics of new technology, and second, learning how to catch up with the advanced digital world. Interviews for the study were conducted with academics who teach in a rural environment. Findings reveal that a blended teaching approach should be adopted to gradually introduce eLearning as a part of curriculum delivery. A large percentage of classrooms are made up of digital natives and therefore the curriculum that is being offered must be presented with relevance to an audience that prefers to consume digital education. The design of the curriculum must embrace a gradual introduction of digitisation in order for eLearning to be fully realised.

Keywords: Digital divide, Curriculum development, Digitisation of eLearning

Students' Perception of Blackboard Learning Management System at Mangosuthu University of Technology

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Theme: E-learning

Abstract

This study explores the intention to use Blackboard Learning Management System (LMS) by Business Information System 2 (BIS 2) students at Mangosuthu University of Technology (MUT). Blackboard LMS is not the first LMS to be used at MUT, since WebCT was previously used. In their first year, BIS students used Blackboard LMS for assessment purposes only. BIS 2 students are introduced to other Blackboard LMS tools (information announcement and course calendar) and enabled to access learning material. Despite all these changes, there is no research that has been conducted in order to understand students' perception of Blackboard LMS. The Unified Theory of Acceptance and Use of Technology (UTAUT) and Task Technology Fit (TTF) models underpin the conceptual model for the study. The sample for the study comprised 109 BIS 2 students from the Department of Accounting. Data was collected through a questionnaire. The results show that there is a positive significance in the intention to use Blackboard LMS by BIS 2 students.

Keywords: Learning Management System (LMS), Blackboard LMS, Unified Theory of Acceptance and Use of Technology (UTAUT), Task-Technology Fit (TTF)

'Open-book, open web' Examination: Innovation in Assessment using ICTs

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Theme: E-learning**Abstract**

Examinations can take the form of invigilated closed-book and open-book exams, project work, laboratory work or any other form deemed appropriate by the relevant examining body. Traditionally, higher education institutions have used various forms of invigilated assessment methods. However, the students of today are from the digital age which engages very well with technology. So why not enhance our assessment methods by harnessing the power of technology? Academics have to keep pace with the new demands on assessments and changing frameworks. An 'open-book, open web' (OBOW) examination format is an innovative assessment method that allows students to take an online examination at any location within a specified timeframe. An authentic kind of assessment task requiring access to books and the web is suited to an OBOW exam. This paper reports the findings on the effectiveness of OBOW examinations in comparison to traditional assessment methods. Interviews were conducted with a group of eighteen employees from various faculties at a local university who were enrolled for a course offered by an online academic institution that delivers programmes using an interactive learning approach within an online learning platform. In an online setting, examinations were conducted in the form of an open-book, open web exam. A pass in the final exam was required in order to receive a pass mark for the course. The study revealed that academics are very positive about OBOW examinations. However, they present a few challenges, one of which is creating a simulated business problem which requires much experience and also the use of multimedia.

Key words: open-book open web examination, authentic assessment, online-assessment

Enhancing the 21st Century Classroom: Integrating Technology into the Teaching Environment

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Theme: E-learning

Abstract

Technology has become an integral part of our lives, affecting the very core of our existence. Despite this, its integration into our universities and lecture rooms has not reached the speed that it should have for various reasons, resulting in lecturers and teachers lagging behind in using technology that would have enhanced the skills of our students and helped to meet the challenges of a highly technological environment. Increasing student numbers and a lack of academic infrastructure have also resulted in increasing concerns about the manner in which lecturers and teachers adjust their teaching/lecturing to overcome the challenges confronting modern-day academics. The traditional lecture room of chalkboard and duster needs to be integrated with advanced technology. A technology-enhanced classroom allows students to interface with the real world by opening up each classroom to improved, meaningful learning which provides an intellectual challenge to the learners. This paper explores how an appropriate learning management system can improve the effectiveness of our learning environment. TPACK is one such learning management system which is “a framework to understand and describe the kinds of knowledge needed by a teacher for effective pedagogical practice in a technology-enhanced learning environment”. The system takes the traditional teaching methods of books and chalkboard and combines them with the advanced technology of the Internet age to provide an enhanced teaching and learning experience.

Keywords: e-learning, technology, learning management system, learning environment

The E-Learning Journey: From Facilitator to Student

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Theme: E-learning

Abstract

Worldwide, the educational landscape is ever-changing, requiring continuous development and learning. E-learning has advanced the way in which education is delivered since a student no longer has to be physically present in a traditional classroom setting in order to learn. Flexibility, accessibility, consistency, blended learning, time and financial savings, convenience and enhanced learning are a few of the known benefits of e-learning. As the Internet is here to stay, so too is the concept of e-learning, requiring instructors in all spheres of education to recognise e-learning as fundamental in their education strategy. Educating in the digital era means that it is obligatory for instructors to keep abreast with new methods and tools, ensuring that the effectiveness of education is maintained. Techniques for transforming educators into effective online facilitators include engaging the learner, promoting active learning, fostering collaboration and encouraging constructive feedback. The aim of the study was to provide an account of the e-learning journey as both facilitator and student, hence documenting insights. The objectives were to critically assess the role of the facilitator in relation to the student and offer recommendations to fellow academics with the expectation of maximising the benefits of e-learning. A census survey of a purposive group of attending an online training course was employed in the study and data was collected using a questionnaire. The quantitative research approach was used and the questionnaire design catered for both open-ended and closed questions, hence allowing respondents opportunities to share their views. As the role reversal provided awareness from a student's perspective, the results of the study provided positive, thought-provoking insights which academics should consider when engaging in e-learning.

Keywords: E-learning, student-centred, blended learning, online training and technology.

Investigating Students' Perceptions of E-learning in the Department of Information Studies, University of Zululand: An On-going Research

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Theme: E-learning

Abstract

E-learning is the use of electronic technology to deliver, support and enhance teaching and learning. The use of e-learning as a learning and/or teaching tool is intensifying rapidly in education. E-learning is considered to be the most recent evolution of distance learning, that is, a learning situation where instructors and learners are separated by distance, time or both. Hence, e-learning offers significant flexibility as to when and how learning occurs. Some of the more well-known advantages of e-learning for learners include increased accessibility of information, interactivity, elimination of travel costs, confidence and increased convenience. However, there are other factors that might lead students to drop out or fail to get satisfactory results in an e-learning course. These are a high level of self-discipline and the absence of a learning atmosphere in e-learning systems. E-learning requires students to be more dedicated to learn the subject matter, compared with a traditional learning format. Therefore the purpose of this ongoing research is to investigate students' perceptions of e-learning at University of Zululand using the Department of Information Studies as the case study.

Keywords: e-Learning, accessibility, interactivity

The Interaction of First-year Students in Mathematics Using an e-Learning Platform in the Classroom at a University of Technology

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Theme: E-learning

Abstract

Institutions of Higher Education (HEIs) in South Africa are generally not doing their best to provide effective, flexible, convenient and accessible learning experiences to cater for the 21st-century students enrolling in universities of technology. In the field of Mathematics, many students carry forward the misconceptions that they developed during their twelve years of basic education. It is therefore important that HEIs find ways to support these students so that their learning problems can be minimised at tertiary level. The purpose of this study was to investigate the impact of e-learning on Mathematics first-year students, with a focus on the underlying principles in understanding mathematics and the ways in which students use the technology platform in learning the subject. The study utilised both qualitative and quantitative methods, with the qualitative data being used to interpret the quantitative data. Data were generated from students' previous examination paper, pre-test, post-test, questionnaires and focus group interviews. The findings revealed that success rates differed by gender, with many of the female first-year students being unable to use the technology platform effectively. The study recommends that HEIs that offer extended curriculum (foundation) programmes should take greater care in designing their calendars so that they alleviate, instead of tightening, the constraints under which students work. Greater support to at-risk students in the form of an e-learning platform is required, which could include the option of extending the programme delivery over a year instead of one semester.

Keywords: Adoption, e-Learning platform, perceptions, technology challenges, developing academic support

Modelling the Rapid Shift and Evolution of E-learning use in the Teaching and Learning Process

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Theme: E-learning

Abstract

Garisson and Anderson (2003), as cited in Muhammad Rais and Yusup Hashim (2004), define e-learning as a network or online learning that takes place in a formal context and uses a range of multimedia technologies. The environment of higher education is rapidly evolving. Rising costs, shrinking budgets and an increasing need for distance education are causing educational institutions to reexamine the way that education is delivered (Wagner, Hassanein & Head, 2008). In a study conducted by Maji (2008), the results indicate that the paradigm shift from teaching to learning is rapidly gaining force and credibility, thus leaving prominent international institutions of higher education worldwide with no choice but to meet the challenge by integrating online learning within their curriculum. In response to this changing environment, the Massachusetts Institute of Technology (MIT) and other producers of Massive Open Online Courses (MOOCs) have uploaded their teaching material and recorded classroom lectures on the web, for anyone to see free of cost. For this reason, the study seeks to model the rapid shift and evolution of e-learning, focusing on how it affects educational institutions at large - especially those with limited resources.

Keywords: Teaching and Learning, Education Technology

Including Pervasive Skills in an Accounting Curriculum at a Rural South African University

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Theme: Graduate attributes of a 21st century student

Abstract

Accounting programmes at South African universities strive to attain and maintain accreditation with the South African Institute of Chartered Accountants (SAICA), an important component of which is incorporating pervasive skills into the curriculum. This paper details how a methodology was identified and adopted in order to incorporate these requirements across the four years of a yet-to-be-accredited professional undergraduate accounting degree. The process commenced by mapping programme objectives to individual modules, thus facilitating a mapping and scaffolding process for the programme. Focus group interviews with discipline leaders resulted in a coherent and coordinated approach to curriculum review which included consideration of the specific needs of students attending a rurally based South African university. The concept of a capstone course was integrated into the final year of the programme in order to complement and complete concepts encountered earlier. Future studies subsequent to the adoption of this methodology may develop or evaluate its efficacy.

Keywords: Capstone course, mapping, scaffolding, pervasive skills, attributes

Integration of Graduate Attributes into the Curriculum

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Theme: Graduate attributes of a 21st century student

Abstract

Universities across the world have always endeavoured to develop desirable qualities in their graduates. For many students, this has been an implicit rather than explicit consequence of their university experience as the development of graduate attributes has traditionally been considered fundamentally inherent in all teaching and learning. This paper aims to determine whether the integration of graduate attributes into the curriculum creates an opportunity for the production of quality graduates. For the HE system to produce quality graduates, curriculum development, teaching and assessment practices should be of high quality as well. Teaching and assessment practices should be such that students are encouraged to produce their own knowledge. This can be achieved if teaching and assessment activities are constructively aligned to each other. By aligning assessment and teaching activities constructively, students are encouraged to undergo deep learning and thus the quality of students is improved. Qualitative research through interviews and document analysis has been employed to explore what the current situation is regarding integration and assessment of graduate attributes. The findings of this study indicated that academics treat graduate attributes as outcomes that are disengaged from the course specific outcomes. It was also discovered that academics saw the integration of graduate attributes as just another added responsibility on top of their overloaded job. This paper concludes by coming up with suggestions on how the concerns of academics can be addressed in order to ensure stressless integration of graduate attributes into the curriculum.

Keywords: Graduate attributes, integration, constructive alignment

Rethinking Graduate Attributes in the 21st Century

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Theme: Graduate attributes of a 21st century student

Abstract

Major economic and labour market shifts have resulted in Higher Education Institutions (HEIs) looking inwards to review the kind of graduates they want to produce. The 'graduate attributes' conversation is not new to the educational sector. In South Africa, the phenomenon has been a topic for a long time, albeit with no tangible evidence of implementation compared to Western countries such as Britain, Australia and Scotland where their governments have taken much interest in the issue. Sugata Mitra of 'Hole in the Wall' (TED Talk) fame traces education and the graduate attributes phenomenon back to the British Empire, dating back to the 16th century. Now that the British Empire is gone, there is a need for HEIs to review their graduate identities and align them, as defined by graduate attributes, to the dynamics of the 21st century. Theoretically, education transcends four paradigms - behaviourist, cognitivist, constructivist and connectivist. These are the foundations for building graduate attributes. In the 21st century, graduates are expected to possess a set of skills and attributes that will enable them to navigate the work and business domains. Even though there is no definitely-agreed list, various scholars, policy makers and employers unanimously agree on the 4Cs (critical thinking and problem-solving, collaboration, communication and creativity and innovation) and digital citizenship as the core skills needed in the 21st century. In addition, different commentators have mentioned global awareness, entrepreneurship and green conscience as equally critical for building life and career skills in the 21st century. In order to produce graduates with these qualities, there is a need for educators, HEIs, industry and policy-makers to come together and develop wide-ranging interventions in terms of curriculum review, funding, and professional, cultural and infrastructural development to support processes and activities that will produce 21st century graduates.

Keywords: Graduate identity, 4Cs, learning paradigms, passive learning, active learning

Exploring Students' Reflections on Learning Through a Peer Mentorship Programme

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Theme: Graduate attributes of a 21st century student

Abstract

Student peer mentorship is increasingly advocated by higher education institutions globally to enhance students' social and academic learning, especially at first-year level. Enhancing social and academic learning involves creating opportunities for first-year students to interact with senior students who familiarise them with the environment in a way that stimulates their academic performance. As students transition from high school to university, they experience various life challenges that require adaptation to a different lifestyle which includes taking responsibility for their own learning and building new social networks. Mentorship is perceived to assist first-time-entering students with transition challenges. The mentorship programme at the Central University of Technology (CUT), Free State, is aimed at empowering senior students to mentor first-year students. It is also intended to assist graduates to acquire attributes that will enable them to function effectively in society. The graduate attributes adopted by CUT are sustainable development, entrepreneurship, community engagement, innovation and problem solving, communication, numeracy, technological literacy, teamwork, technical and conceptual competence, as well as citizenship and global leadership. This paper reports on students' reflections on what they learnt from participating in a peer mentorship programme at CUT. Action research was applied and corresponding focus group interviews and semi-structured interviews were used to collect data from a sample of mentors. Purposive sampling was adopted from senior students who participated in the programme from their first year at both the Bloemfontein and Welkom campuses of CUT. Interviews were audio recorded, transcribed and classified in terms of emerging themes which were subjected to discursive analysis, followed by discussions and conclusions. The study is envisaged to contribute to the improvement of the mentorship programme and encourage more students to participate in the programme to enhance their learning and attain graduate attributes.

Keywords: Reflection, peer mentorship, student learning, graduate attributes

The Potential of a Kaizen-Based Training to Enhance Employability of Graduates from a University of Technology in South Africa

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Theme: Graduate attributes of a 21st century student

Abstract

The employability of new graduates has been a topic of concern for a number of years, resulting in national studies being undertaken in countries like Australia (Bridgstock, 2009) and Canada (McLaughlin, 1995), as well as in South Africa (Coetzee & Beukes, 2010). Whilst these studies have contributed knowledge to what employability of graduates might entail in the 21st century, and whilst researchers have reported a mismatch between the employability skills required by employers and those that new graduates possess (Cilliers, 2000; Stewart & Knowles, 1999; Moleke, 2005) not much is known about how employability is achieved. The South African Department of Higher Education and Training, in its quest to help students develop employability skills and apply these during their work placements, has partnered with the Japan International Cooperation Agency (JICA) to implement the Employability Improvement Programme (EIP).

Based on the kaizen principles of continuous improvement (Chakravorty & Franza, 2012), the intended outcomes of the EIP are:

- The graduates understanding their role within an organisation;
- The ability to plan and organise work;
- The ability to identify and solve problems;
- The ability to manage time;
- The ability to work in teams;
- The ability to identify and avoid types of non-value adding activities.

This paper will investigate, through interviews and video ethnography, the potential of kaizen-based training to enhance employability of graduates from a university of technology.

Keywords: Employability, Kaizen, training

Combining Academic and Psycho-Social Support Through Discipline-Specific Peer-Mentorship

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Theme: Integrated interventions for student academic support

Abstract

Studies have shown that academic and life skills support programmes are often introduced to students in a disjointed way, attempting to address problem areas that first year students face in isolation. On the other hand, literature notes that academic performance of students can be attributed to both cognitive strength and the influence of the environment, attitude and motivation that students are exposed to. This paper presents findings from a study of academic and social support provided to students through peer mentorship at one university of technology in South Africa. I discuss the link between motivation and academic development by examining the interactions between mentors and mentees from specific disciplines. A total of 61 mentees participated in both the written evaluations and interviews, whilst 71 mentors completed the written evaluations and 34 mentors participated in the interviews. Questions were grouped into three focus areas: the general design of the peer mentorship programme, the influence of social support and the influence of academic support. The results suggest that the participants not only gained a better understanding of themselves, their goals and values but also showed academic improvement and eagerness to continue with their studies after exposure to discipline-specific peer support. Cooperative activities between the mentors and mentees exposed the vital role that intrinsic and extrinsic motivation play as enablers of academic success. The importance of these findings lies in creating more holistic and effective support structures that would enhance student growth and learning.

Keywords: Mentorship, academic performance, support, first year students, discipline specific-mentoring

Brave New World: An Urgent Case For Student Support

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Theme: Integrated interventions for student academic support

Abstract

The 21st century has so far been characterised by sweeping changes on a scale never seen before. Nowhere have the changes been more evident than in the so-called digital revolution that marked the beginning of the Information Age. The third millennium also gave rise to a new generation of so-called millennials, whose generalised traits differ vastly from those of previous generations. This 'brave new world' poses new challenges in the field of teaching and learning, requiring a greater emphasis on collaboration, digital literacy, critical thinking and problem-solving. In 2014 the Council on Higher Education defined student success as graduating with attributes that are personally, professionally and socially valuable. Crucial to the attainment of this aim is student support – support which seems increasingly essential in the light of an extremely complex world and the pressures it exerts. It is the mission of a small private institution, the Stellenbosch Academy of Design and Photography, to look after its students in a holistic way, in other words in their totality as human beings. This presentation will therefore focus on both academic and non-academic factors which have a significant impact on students' academic performance and on interventions to counteract these issues. Academic support is not given in isolation but is embedded in the mainstream programme which promotes the requisite skills and taught within disciplinary content. It must be emphasised that the interventions include teamwork: the academic head, the institutional director, lecturers, parents, psychologists, and whoever is deemed necessary for a specific situation, are involved in these discussions. The subject of the discussion will describe a series of support measures which are part and parcel of the Academy's ethos and which are designed to encourage students on their journey towards graduation and life-long learning.

Keywords: student support, academic intervention, academic performance, student success.

Mathematical Understanding of Commerce Students at University of Zululand: An Exploration

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Theme: Integrated interventions for student academic support

Abstract

The Mathematics and Statistics course for the commerce students at University of Zululand is offered by the Department of Mathematical Sciences. The students that the module caters for come from a variety of academic backgrounds with varied levels of mathematical computational and problem-solving ability. A teaching intervention that comprehensively addresses the academic needs of the commerce students is designed and practiced. This research focussed on a teaching intervention aimed at the commerce students with the intention of improving the numerical proficiency of the group considered.

The 21st century graduate attributes which the current literature on numeracy speaks much about are taken as a theoretical frame. Against this frame the current teaching methods are weighed and a set of propositions formulated with the intention of providing certain guidelines. The authors believe that these guidelines, derived from the results of the intervention, when followed in the teaching method will enable the students to become numerically competent in their chosen fields.

Keywords: Numeracy, problem solving, mathematical preparedness

Merging Academic Skills into Teaching in the Disciplines: Implication of Collaborative Teaching Spaces

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Theme: Integrating interventions for student academic support

Abstract

The lack of essential academic skills (such as academic writing, communication skills and interpersonal skills) among exit-level university students remains a challenge for higher education institutions, disciplinary specialists and industry alike. Of immediate concern for disciplinary specialists in many higher education contexts is finding time to best facilitate the development of 'soft skills' while simultaneously grounding the construction of disciplinary knowledge. Often, academics feel overburdened by a double role: that of being a disciplinary specialist and academic skills developer (Bouhey, 2009). Using evidence from two different departments, Chemical Engineering and Environmental Health, this paper glances at how students' lack of 'soft skills' impedes their performance and success within their final-year projects and their Work-Integrated Learning (WIL) experiences. In response to the students' needs and challenges, the paper then presents three approaches to the development of academic skills, with the aim of opening an institutional dialogue on the model. Implications for merging the development of academic skills into disciplinary contexts are scrutinised and recommendations towards improved practices are proposed.

Keywords: academic skills, disciplinary knowledge, academic skills models, work integrated learning

Student achievement and self-reflection

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Theme: Integrated interventions for academic and social support

Abstract

The democratic post-apartheid South African government has prioritised a commitment to reducing talent scarcity and unemployment levels. This aims to improve the economic and social standing of South Africans. One way of achieving this objective is to increase student intake into higher education institutions. However, evidence of high student attrition and drop-out rates continues to indicate that many students entering tertiary institutions are not adequately prepared intellectually, physically, psychologically, emotionally and socially for the requirements. Consequently, there is an urgent need for integrated intervention approaches that put together various strategies to alter the negative trends in tertiary institutions. Using Tinto's social integration approach, this study considers how the gaps in students' academic achievements can be bridged by building their self-confidence. Tinto's model of departure is used to discuss how students can be supported to overcome challenges in the transition from high school to the first year at university. This is considered one of the most difficult transitions in life. The burden of responsibility lies with older students, the new students, and the academic staff to cushion the struggles in the academic performance of new students in order to reduce student drop-out. The study uses a qualitative research approach to discuss a multi-pronged response that includes measures such as bridging courses, English language development, academic literacy and mathematics as the core skills that most students need. Added to this, extra tutorials in subject modules and peer mentoring can provide students with strong academic and social resources that can enhance their success. These remedial measures are meant to ensure that students positively handle the curricula. This article identifies and discusses the appropriate composite support necessary to achieve this, and how this can be used to ensure that such students excel in their fields of study and graduate within the least time possible. It engages with how sustainable educational policies and models can be used to strategically support students from the point of access to the point of successful completion of their studies through academic development programmes.

Keywords: Achievement, student, higher education, integrated intervention, policies

The Association Between Physical Activity and Cognition in University Students

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Theme: Integrated interventions for student academic support

Abstract

Several studies have emphasised the benefits of physical activity for cognitive function and memory. Physical activity stimulates brain function while improving memory retention and learning, promotes neurogenesis and protects the nervous system from injury and neurodegenerative disease. The purpose of this descriptive study was to identify the association between physical activity levels and cognitive skills in university students. Physical activity levels will be calculated by the International Physical Activity Questionnaire (IPAQ) and the Revelian Cognitive Ability Test (RCAT) will be used to measure cognitive skills. The sample will consist of 300 participants currently registered at the University of Zululand. Data collection will occur between February 2017 and March 2017.

Keywords: Physical activity, cognitive function, university students

Initiating New Benchmarks in Higher Education: Academic Support and Student Advancement

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Theme: Integrated interventions for student academic support

Abstract

The focus of this study is on the development and advancement of undergraduate student growth and postgraduate research support in a higher education institution that is recognised as ‘previously disadvantaged’. The areas most lacking in higher education include limitations in academic support systems for supervisors, student researchers and undergraduates. Multiple methods are therefore required to achieve student development. Aspects such as reading, comprehension, writing, understanding and interpreting literature, as well as communicating these skills on a scientific platform through thesis writing, conferences and publications, are the primary focus of support techniques and tailored workshops offered at the University of Zululand’s Writing Centre. Additionally, ‘blended’ teaching techniques are utilised to assist in building student capacity through one-on-one, group or class lessons on writing techniques, time management, coping with exam stress, strategies for effective academic prioritising and content evaluation of some course work. The teaching tools proposed are student-oriented and can be easily structured to suit the needs of students from different backgrounds. The efficacy of this process is evaluated in terms of individual progress, comparing academic performance “before and after” the teaching interventions.

Reflecting on Work-Integrated Learning in Consumer Sciences

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Theme: Responsive curriculum

Abstract

There is increasing emphasis on work-integrated learning (WIL) in Higher Education to enhance integration of academic study and practical work experience. Education institutions are required to adapt the education to comply with workplace demands. In response to the university's mandate, a WIL credit-bearing module was introduced. The aim of this presentation is to give an ethnographic account of WIL experiences. WIL is a structured, assessed learning experience that incorporates feedback to develop the curriculum. Although critical cross-field outcomes can be addressed in class, these should be complemented by application in real-life situations.

The focus of the preparation phase is on the preparation of students for the fieldwork phase and establishing relations with external stakeholders. This phase commences in the third year of the degree. Student tasks, activities and workshops are conducted. Students are responsible for identifying suitable agencies for placements with assistance from the department. The fieldwork phase is usually in the June-July vacation for approximately six weeks. Students profile the agency, the target community and engage in curriculum-related activities. Monitoring is done and feedback takes the form of self- and field supervisor evaluations.

The student compiles a comprehensive report, evidence of field experiences and reflections on preparedness for the workplace, and an oral presentation. The benefits of WIL feedback are a better-integrated and more responsive curriculum, improved course sequencing, enhanced employability and internship opportunities. Challenges include the lack of a WIL policy both in the institution and the workplace, a lack of formal agreements and capacity for academics and host agencies, and a lack of financial student support.

The study concludes that consistently improving the curriculum and creating opportunities for exposure to real life situations is an investment in student development. Through WIL, students engage with communities to assess needs that can be addressed through problem-based research and development of interventions.

Keywords: Work Integrated Learning, Consumer Sciences, Curriculum development

A Pedagogical Contribution to Pre-service Teachers' Mathematical Success

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Theme: Responsive curriculum

Abstract

This qualitative study actively engaged a group of eight pre-service mathematics teachers (PMTs) in a developmental context and underpinned by a strong constructivist framework. Through using a set of task-based activities embedded in a dynamic geometric context, this study firstly investigated how the PMTs experienced the reconstruction of Viviani's theorem via the processes of experimentation, conjecturing, generalising and justifying. Secondly, it was investigated how they generalised Viviani's result for equilateral triangles, further across to other higher order polygons such as the rhombus, pentagon, and eventually to 'any' equi-sided polygon, with appropriate forms of justifications.

As a pedagogical contribution to Mathematics teaching and learning, this study provides a descriptive analysis of a 'guided approach' to both the construction and justification of generalisations via an evolutionary process, which Mathematics teacher educators could use as a model for their own attempts in their Mathematics classrooms. For example, this study provides plausible ideas as to how students through experimental exploration can construct inductive generalisations and experience heuristic counter-examples that can cause (or force) them to modify (refine) their conjectures, i.e. make a conceptual change as per Piaget's model of socio-cognitive conflict.

Concurrently, the study illustrates 'how' the insight and understanding gained from the logical explanations constructed for each successive generalisation in the learning trajectory, helped PMTs to create a 'road map' that enabled all of them to discover a general proof for the equi-sided polygon. In addition, this paper presents the variations in steps the PMTs followed, the scaffolding and added support which they needed (in varying amounts) and the success of generating a general conjecture which then had a justification which met the standards of proof, as they have been learning these 'proof' standards.

Keywords: pedagogical, pre-service teachers, success, experimentation, generalising, justifying.

Using Data Analytics for Student Success

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Theme: Student data analytics

Abstract

The term Data Analytics (DA) has been used by people in higher education to describe their work with data. DA has been described as the discovery and communication of meaningful patterns in the data. Institutions need to be able to monitor student activities, report the number of students admitted, the applications accepted and how many students achieved their academic qualifications. However, this has not been easy since there is a large number of classes, increased diversity amongst students, and part-time students add complexity to the monitoring process. The main aim of student DA is to use big data to improve academic success and administrative performance. Big data analytics uses computer-intensive data mining algorithms that require efficient high-performance processors to produce timely results. While adopting student DA, one has to begin with descriptive analytics that describe or address a question as to what happened, then move to diagnostics analytics that explain the reason why it happened. The next step is predictive analytics, which suggest what will happen and offers insights in improving student success. The success of students can be measured through retention, progress and academic achievement, which are the goals of an institution. Institutions need to move away from just collecting data that report past accomplishments and undertake a more sophisticated analysis that links the dots to suggest future actions. DA has to become the backbone of institution administration and learning development. Higher education institutions will be able to get to grips with effective student monitoring that will in turn allow them to improve the student success rate. Without good retention of good students, it is difficult for the institution to attract good teaching staff, future students and most importantly funding for research projects.

Keywords: Analytics, big data, success, mining, performance

Effects of Reward Inclusion During Active Learning on Class Pass Rates and Grade Improvement

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Theme: Student success

Abstract

After the liberalisation of South Africa in 1994 and the introduction of democracy, higher education opportunities were open for all South Africans irrespective of their socio-economic backgrounds. Although access to higher education has improved since 1994, fewer students are completing their diploma and/or degrees within the minimum required time. Active learning has been reported to play a key role in any successful teaching paradigm. This study investigated the impact of reward inclusion during active learning on the class pass rate and student mark improvement. The study was carried out using a fourth-year module (Applied Animal Nutrition (ANN)) and a third-year module (Farm Animal Anatomy and Physiology (FAAP)) from the Department of Agriculture, University of Zululand. Class lectures were delivered with the aid of a power point (slide) presentation. The first test was written after four weeks of lectures' commencement. From week five, students were given a 0.5 bonus mark based on active participation during lectures, until week 7 when they wrote the second test. After the second test, the bonus mark was increased to 1.0 till the end of week 10 when the third test was written. The effects of reward were assessed using the active participation score, class pass rate and student improvement. Results from the ANN module showed that reward during active learning increased ($P < 0.05$) the class pass rate from 33.3% (after the first test) to 80% and 93% after the second and third tests respectively. In comparison, active participation was low for the FAAP module; however, the class pass rate did increase from 63.8% to 72% in the first and third tests respectively. Fourth years were more responsive to the implementation of the reward inclusion than third years, hence a need for more research on teaching strategies and their application.

Keywords: Active learning, reward inclusion, student success, teaching methods

Inducting Students Into the Community of Higher Education

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Theme: Student success

Abstract

In this paper I will be using Specialisation codes (Maton, 2014) to conceptually examine and expound the underlying organising principles of the Cornerstone 101 Module, a compulsory General Education Module for first-year students. The knowledge and knower structures used in Specialisation are useful in unpacking the kinds of knowledge structures that are valued in Cornerstone 101 and the type of knowers it seeks to develop. General Education was introduced in 2012 with a threefold aim: to build a student-centred educational experience embedded in the local context; to prepare students for an increasingly diverse and complex, globalised work environment; and to cultivate an engaged and critical citizenry in the context of an emerging and fragile democracy in an ever-changing world order (Gonsalves, Govender & Timm, 2016). The purpose of Cornerstone 101 is “to induct students into the community of higher education, with values and practices that promote self-awareness, social justice and environmental sustainability” (DUT: 2014). This research will include an analysis of a survey distributed to the first-year students at DUT who are enrolled for Cornerstone 101, as well as to Cornerstone 101 lecturers and teaching assistants. The purpose of this research is to investigate how the knower and knowledge structures in Cornerstone 101 induct students into the community of higher education. This research will also include an analysis of Cornerstone 101 documentation which includes the module descriptors, study guides, facilitator guides, assessments, subject evaluation questionnaires and other supporting materials. Results of this research will be useful in the review and development of the Cornerstone Module 101 and will also contribute to debate and discussion at DUT into how we can induct students into the higher community of higher education.

Keywords: Specialisation, general education, higher education, knowledge, knowers

Interrogating Quality Teaching in Higher Education

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Theme: Student success

Abstract

Very few topics in education have captured as much attention from regulatory authorities and practitioners as the connection between quality teaching and student achievement. Current research gives emphasis to the continuous importance and influence of quality teaching on student satisfaction and achievement. The major reasons to closely investigate the notion of quality teaching in higher education are:

- The teaching process is driven by academics, who are experts in their field but not necessarily trained in pedagogy.
- The diversity of employment statutes within the institution (professionals, international teachers, part-time teachers, etc.), combined with an increasing variety of students, might result in incoherence and inequity in the teaching process.
- Research enhances curriculum development, and the link between updated knowledge and teaching is crucial.

Highly successful pedagogics develop when teachers/lecturers make outstanding use of their understanding of the research and knowledge base for teaching in order to support high-quality planning and practice. Quality teaching arises when this research base is supplemented by personal passion for what is to be taught and for the aspirations of the students. Assuring and enhancing educational quality and academic standards is viewed as a complex and multifaceted activity, geared towards ensuring that graduates compete successfully in a global market. In this process, it is difficult to maintain a balance between 'quality as inspection' and 'quality as enhancement' in terms of promoting effective teaching practices. Considering the strategic importance of quality teaching, this paper aims to interrogate questions such as:

- What is quality teaching and why is it important in higher education?
- What are the implications of long-term learning outcomes and short-term goals?
- Does quality assurance embrace the complexity of teaching?
- Has the culture of measurement trivialised teaching excellence and has the language of business turned it into a product?

Key Words: Effective pedagogics, quality teaching, quality assurance, learning outcomes, quality enhancement

The Effect of Psychosocial Factors in Determining Success in Computer Programming: The Case of a Previously Disadvantaged University of Technology

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Theme: Student success

Abstract

Learning computer programming is often difficult in the first year of university studies, particularly to the majority of students who are historically known to be previously disadvantaged. This may be attributed to the fact that the students would have limited access to technology prior to joining universities. The factors that affect academic performance in general have been a subject of debate for many years, and numerous factors have been found to affect the performance of students. Determining the factors that affect academic performance usually results in a combinatorial explosion of possible answers. The failure to find answers to this problem makes it difficult to design teaching methods that can cater for everyone. Nevertheless, it is imperative to investigate why students do not perform well so as to design effective intervention programmes. The government spends a significant amount of money every year to fund universities across the country; hence university throughput is of paramount importance for it. In this study, we investigated the effects of psychosocial factors on academic performance in introductory programming. Psychosocial variables explored in this study include, but are not limited to, university integration and career orientation. These factors have been identified by prior studies to affect students' learning. Two focus groups and 20 individual interviews were conducted among second-year ICT students doing programming who have already passed their first year of study at Mangosuthu University of Technology. The participants were given interview guide questions two weeks before the interviews in order to elicit rich responses. The results of the study revealed that poor academic performance correlated to a lack of focus on their studies. The results also showed that students who are career-oriented are likely to succeed in programming because of their internal drive. Emerging from the themes, political affiliation, social networking, partying and substance use were found to affect the academic success of students in introductory programming.

Keywords: Psychosocial factors, computer programming, academic performance, academic interventions, teaching methodologies

Improving Teaching and Learning at a Clothing Practical Class of a University of Technology

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Theme: Student success

Abstract

The paper explores how I can improve teaching and learning in a Clothing practical class at a university of technology. My concern was born of whether I was doing the best I might do to meet the desired teaching and learning expectations for this course – mindful of the fact that students should be able to compete with graduates from other institutions when applying for employment. The motivation for my study arose from the need for academic growth through exposure to teaching and learning in the classroom, and by observing the performance of graduates in the marketplace. My main objective was to improve teaching and learning in my Clothing practical class.

I used a self-study research methodology to understand my educational influence towards student success. I was the main participant, along with students in my class. I collected data by interviewing students, observing, reflecting and reading students' reflections on practicals conducted. I also used visuals to capture events as they occurred in my practice.

The results show that using a self-study research methodology helped me to discover myself as an educator. The writing of reflections and using questionnaires ultimately improved my understanding of my educational influence towards student success. This improved my motivation and students' self-confidence and satisfaction with their work in a Clothing practical class. I learned to be open to new ideas that emerge from my practice, such as creativity, patience, passion and trust.

Keywords: self study, reflection, creativity, passion ,trust

Poster Abstracts

Embedding Academic Literacies in the Faculty of Accounting and Informatics: Practices, Challenges and Opportunities

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Abstract

Definitions of academic literacies have been and continue to be opposed. For the purposes of this study they are viewed as social practices, thus showing a need to embed these academic literacies into the design of the mainstream curriculum. This study explores/investigates the current practices, challenges and opportunities of embedding academic literacies in the mainstream curriculum by all lecturers at a tertiary institution.

The theories underlying this study are mediation theory and New Literacy Studies theory, which both state that the lecturer is central in assisting students to learn academic literacies that are specific to each discipline - hence the need for lecturers to embed these literacies into the mainstream curriculum for students. The focus of this study is on contributing to current academic literacies practices that are aimed at embedding academic literacies in the Faculty of Accounting and Informatics at the Durban University of Technology. The study also aims to determine the challenges associated with the embedding of these academic literacies and identify opportunities available to enable the embedding of academic literacies into the mainstream curriculum.

A mixed method approach to data collection is utilised by means of questionnaires and focus group interviews with the target population. Lecturers are the key participants in this study in order to allow for the collection of meaningful information. The findings from the study will suggest ways in which the university can best bring about changes regarding the practice of embedding academic literacies in higher education. The findings will indicate if there is a need for a mindset shift by lecturers with regard to the process of integrating academic literacies into disciplines and indicate the kind of support required by lecturers in doing so.

Keywords: embedding academic literacies, mediation theory, New Literacy Studies

Exploration of the Curriculum Development Process at CUT for Designing a Curriculum Development Strategy to Enhance Academics' Capacity in Developing Curriculum

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Abstract

There is an increasing demand globally for Higher Education (HE) curricula in the 21st century to be more responsive and relevant. Curriculum responsiveness is described as the ability of teaching and learning in higher education institutions to meet the changing needs of industry in terms of the type of graduates being prepared. Transformation of higher education internationally and nationally (from the new political dispensation in 1994 in South Africa), resulted in a new era and mode of thinking regarding teaching and learning. In this poster I propose a study exploring the curriculum development process at a university of technology with the aim of designing a curriculum development strategy. Qualitative and quantitative designs using a participatory approach will be used as research methods in this study. Purposive sampling will be conducted among the lecturers and curriculum developers at a university of technology. Data will be collected using interviews and questionnaires. The collected data will be subjected to statistical analysis using Question-pro, as well as analysis of issues and themes emerging from the data. The findings of the study will be used as guidelines towards the designing of a curriculum development strategy. Although the strategy will be for a university of technology, it is anticipated that it can be applicable to other higher education institutions.

Keywords: Curriculum, curriculum development, curriculum responsiveness and transformation

Discourse and Biliteracy for Epistemology

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Abstract

According to the Language Policy for Higher Education (LPHE) (2002), the current position of English and Afrikaans as the dominant languages of instruction is a barrier to access and success in higher education. For this reason, the LPHE encourages universities to develop institutional language policies that will guide the use of African languages, alongside English and Afrikaans, as media of teaching and learning. Fifteen years after the LPHE, it is important to evaluate how different South African universities are doing when it comes to the implementation of their language policies. The reported study involves five universities spread across the country in which benchmarking and attitudes towards the bi/multilingual education policy were assessed. It emerged that at UCT, UWC and CPUT the institutions are implementing discipline-specific academic literacy courses, as opposed to generic approaches. At MUT the use of an African language (isiZulu) alongside English was receiving acceptance among students of English Communication Skills. In all cases there were, however, some tensions on the role of African languages in education. It is encouraging to note that these tensions do not appear to be obstacles to future changes and new spaces for African languages in higher education.



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