

2015 Celebration of Teaching and Learning Proceedings



“Live as if you were to die tomorrow. Learn as if you were to live forever.”
[Mahatma Gandhi](#)



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CAPE TOWN



Seventh Annual IIE Celebration of Teaching and Learning

2015 Celebration of Teaching and Learning

The Pedagogic Power of Heuristics: A Case Study

Submitted by: Alexander Sudheim

Introduction

The concept of heuristics is as seemingly self-evident as it is deceptively complex. In terms of its practical application, heuristic methods are common to everything from computer processing to scientific experimentation to the most abstruse of moral and philosophical debates.

The word itself is derived from the Greek *heuriskein* which means “to find” and heuristics is essentially that – the process undergone in order to ultimately find something out; to discover something, be it the maximum pressure able to be withstood by a submarine hull or the precise moral authority of the International Criminal Court vis-à-vis that of the African Union.

Seen in its simplest, most mechanistic form, heuristics is essentially a synonym of “trial and error”. When a relentless, resourceful individual – or team of individuals, or a computer programme – is determined to discover the solution to a problem, he, she or it will undergo a cycle of attempts, failures and successive attempts until the solution has been obtained or it becomes apparent that there is no possible solution.

Possibly, the most well-known example of this methodology is Thomas Edison’s eventual invention of the lightbulb. Edison is supposed to have only made it work after his ten thousandth attempt – many thousands after his despairing friends and family had urged him to abandon his quixotic quest. In an interview conducted many years after fame and fortune had come his way, Edison was asked how he possibly found the fortitude required to continue his single-minded pursuit after ten thousand failed attempts. “My dear fellow,” Edison replied, “I did not fail ten thousand times: I succeeded in finding ten thousand ways that did not work.”

This is the essence of heuristics – if it does not work one way, exhaust every single possible way in which it might work in order to achieve eventual success. This concept is closely allied to that of iteration, defined as “repetition of a procedure applied to the result of a previous application, typically as a means of obtaining successively closer approximations to the solution of a problem.”

It would seem that heuristics is a method of trial-and-error best suited to science and mathematics, yet it plays a surprisingly powerful role in our conception of myriad psychological, philosophical and socio-political concerns such as progress, evolution, normativism, relativism and universalism. It is in the cultural context where a heuristic paradox arises, one neatly summed up in the famous French aphorism *plus ça change plus ça la memme chose* – the more things change the more they stay the same.

Arguably, certain aspects of human nature are non-heuristic: they are implacable, de-ontological and fundamentally fixed. Certain facts, such as our dependence upon food, water and air for survival are essentially non-heuristic. Many argue that phenomena such as “man’s inhumanity to man” or “human greed” are non-heuristic since, based on the available evidence, they seem hard-wired to the human brain regardless of which age or epoch the species happens to be living in. Then again, if the above-mentioned are part of humanity’s “animal instinct”, this forms part of evolution, itself a profoundly heuristic process given the constant refinements being made by the process of natural selection, an infinitely complex chain of infinitely repeated iterations. Consider for a moment the astonishing fact that 99% of all species of life that ever existed on planet Earth are now extinct: a powerful example of the heuristic process locked into the inexorable march of time.

Some things thus, may stay the same, while others are constantly changing. When Galileo announced the Earth was not the centre of the universe he was imprisoned for blasphemy. Of course scientific fact eventually overcame religious dogma and Galileo was proven right, although it remains of interest that it was only in 1992 – 359 years later – that the Roman Catholic Church acknowledged it had erred in condemning Galileo. Based on this knowledge, one might observe that cultural heuristics – those concerning ethics, morality, religion, ideology, etc. – move independently from scientific ones, either at relatively faster or slower speeds. It has been noted, for instance, that in the year 1998, a person who read a daily edition of The New York Times from cover to cover had acquired more knowledge than the average educated Englishman would have acquired over their entire lives a mere 200 year earlier. If one takes the sum of knowledge a human is capable of gathering as an iterative process, that’s a radical rate of increase over a short period of time. However it remains to be proven that the acquisition of all this knowledge has made the 1998 human more intelligent – the jury is still out as to whether or not there is a fundamental causal link between knowledge and intelligence. Possibly a case of *plus ça la change plus ça la memme chose* – the more knowledge a human acquires, the more constant his or her basic level of intelligence remains.

As much as the fields of science, technology and mathematics are drawn to heuristics for its innate empirical exactitude, the arts and humanities are attracted to the notion for its ability to generate lively debate amongst professional rhetoricians. A case in point is the ongoing discussion over the very nature of what constitutes a human right as set forth in the historic Universal Declaration of Human Rights signed in 1948. Some academics claim that the notion of inherent human dignity, which underwrites human rights doctrine, ought to be considered an intrinsically heuristic concept. This, of course, implies the existence of a set of standards whereby human dignity could be somehow measured in terms of the context in which it operates. Others are, of course, appalled at such a notion, insisting that the concepts of human rights and human dignity are universal; are accorded equally to any member of the human race and transcend whatever whims of circumstance surround any particular human.

The purpose of this paper is not to wade into the sticky morass of intellectual discourse regarding the nature of the human being and to what extent they are to be regarded as contingent or non-contingent agents. Instead, it intends to demonstrate how the pedagogic profession can combine the best of both the scientific and creative uses of heuristics to forge a powerful learning tool.

Of Beers, Matches and Trophies: A Case Study

At Vega School of Brand Leadership, students reading for the Bachelor of Arts Specialising in Creative Brand Leadership (CBC) are required to choose a specialisation subject at the end of the 1st year of their studies. During this year they had the opportunity to sample each of the three specialisation subjects of Visual Communications; Multimedia Design and Copywriting. The 2nd and 3rd year of their studies then take on a heightened focus upon this subject with a view to their pursuing that area of specialisation in industry.

As with all the specialisations, Copywriting presents a sharp learning curve for the student from day one: two years to transform a crop of eager young recruits into combat-ready cadets ready for the unforgiving pressure-cookers of a volatile industry is a highly compressed amount of time in which to achieve this feat. As such, the workloads are heavy and the expectations high – a tone which is set by the very first brief of 2nd year Copywriting.

This takes the form of a 5-week project simply entitled *Handwritten*. The students tackle it on their own in order to develop their ability to be independent creative problem-solvers before they embark upon collaborations with the other specialisations. The emphasis in this brief is upon developing a synthesis between style and substance: students are required to develop both their lateral creative abilities and their rock-solid crafting capabilities.

In essence, what the copywriter is required to do is to create a complete brand identity from scratch and develop a compelling branding, marketing and advertising campaign around that brand in order to bring it to market with maximum impact. The business of endowing a product or service with the perfect brand name is a serious one for a copywriter upon which the appeal of the brand to its target audience is crucially dependent. In fact, the art of bestowing upon a brand is less art than science – it's called onomastics and is a scholarly discipline unto itself with serious gravitas in the field of linguistics.

In an industry-reflective roleplaying environment, the students are to see themselves as copywriters at an agency which has just landed a potentially exciting dark-horse client. They have an amazing product or service that meets a particular demand in the market (be it a groundbreaking app or a new kind of beauty product was left to the student's imagination) and all it needs to take flight was a killer name; a powerfully differentiated brand identity and a highly creative campaign backed by solid strategy. Certainly, it is a trial by fire as the first project in the first year of your specialisation subject.

One particular 2nd year student in 2013 – a certain Michael Southey – decided that the crowd that had come to his agency was a microbrewery startup that produced a handmade, authentic and unique product for the burgeoning craft beer market. After determining the brand's USP (unique selling proposition) and differentiator as the virtue of “companionship” he decided to name the beer Constant Lager. The campaign to bring it to market was to be based on the narrative of a constant: the universal human truth that we all need something we can depend upon – a constant, reliable presence that will never let us down.

After much consultation between student and navigator (at Vega lecturers are called navigators because our role is more about guiding than prescribing) it was decided that, in order to create the warm, personable tone one might expect from something that was a constant companion throughout one's life journey, the literary device of personification would be employed so that the beer could speak to its audience in the voice of an old friend. This had the further benefit of, strategically, positioning the brand on the upper echelon of Maslow's hierarchy of needs (where it served an emotive “self-actualisation benefit” rather than the more practical and prosaic “use benefit”) as well as tapping into the universal human truth of our common desire for companionship. In short, the beer added value to the consumer's life by not simply being a *product* that satisfied one's fleeting desire for a thirst-quenching brew but by being a *person* that satisfied one's lasting desire for a meaningful friendship.

However, bringing this idea to fruition proved trickier than expected. Simply writing from the beer's point of view proved both limited and repetitive. Following an intuitively heuristic process, early iterations of the concept were tested and ultimately discarded. An evolutionary leap was required and, after much idea-generation, this came from the insight that, in order to tell the story of true companionship, Constant Lager had to be analogous to those things in life that are constant as opposed to embodying them. Since the target market for this robust craft beer was men, the three great constants throughout a man's life were identified as the hair on his head; his facial hair and the denim trousers that would clutch his crotch all through his days. Thus was born the series of print ads that would carry Constant Lager out into the world. This highly crafted, narrative form of copywriting is known as “long copy”.

Regarded by some in the industry as an anachronism due to its emphasis upon literary elements such as style, tone and descriptive depth in the age of the soundbite, for this self-same reason it remains a timeless technique, the vintage sports car of advertising that embodies a transcendent sense of sophistication in an era of disposability. Here are Michael's three print ads for Constant Lager:



It all started when Heinrich was 17 years old. I sprouted, thin, meagre and fluffy on his top lip. I was nothing to be taken seriously back then. It all changed when we got to college, Heinrich felt that it was time to go big or go home. First he mimicked the 'Salvador Dali' stache. I emerged from below his nose with utter prowess, spread-eagled and pointed towards the sky. Boy did he get them French gals. After this Heinrich joined a metal band and out I poured from his chin. I was the grunge goatee emerging from his angsty soul while he smashed away on his bass guitar and dated Alice, that chick with more piercings than clothes. Next we found ourselves joining the college rugby team. What came of this was something out of the Scottish highlands, from a town called Haggis where every lad was raised to be a kilt-wearing lumberjack. Full bodied beast of a beard I was then, hanging majestically, curl amongst curl of unadulterated manhood. Men would grunt from the other side of the bar and raise their glasses in our honour. During this stage Heiny hooked half of the Stormer's cheerleading squad, their moms included. I had become his face fungus, emerging from his pores, thick and black conquering his jawline. As much as we both changed, my presence was constant. I was there, edging him along the path to manhood. It was a companionship and what made it thrive was my consistence.

Though some things may change there is always a constant.

CONSTANT
-LAGER-





James and I go way back man. I mean waaay back. The little guy learned to walk in me. I shared his first footsteps and got crayon etched into my fabric when he decided to graffiti his dad's study at age 4. After that I felt the wooden spoon just as much as the poor guy did. He grew up quickly after that. Stage after stage we changed. When he was listening to Eminem and thought Laquesha was the finest lady, that's when I hanged lower than his parent's expectations for him at the time. This kid showed more boxers than jeans. Next James threw away my bagginess for something a little tighter. Before we knew it we were in some an anti-folk indie band that no one had heard of and caring a little bit more than we should about animal rights. All James gained from this period was less of a chance to herald offspring later in his life. After this James threw me in a tub, chunked some colour in, went to Afrika Burn and chased around a girl called Rain who hasn't shaved for a while. We've had quite the journey the two of us, I've been acquainted with his backside, so tight I was his second skin and then showed the colours his heart wanted to express. I've always been there, with him, for him, representing him.

Though some things may change there is always a constant.

CONSTANT
-LAGER-





I've been with George since a young age. By the time he turned 3 I was already hanging around his ears and flowing in the wind. He had a big brown mop of me on his little head. As he grew so did I. Haircut after haircut, I came back every time, I was persistent like that. All the fun really started in college, that's when he started to experiment with me. I emerged from his shaved head like jelled antlers, the rebellious Mohawk spikes. When we entered a room he roared like a majestic Stegosaurus and all the leather clad ladies came running. After a while I had grown out, he shaved my sides, left me on the top and flopped me over the back. I was the dreaded mullet, hanging from a semi bald head just above his collar I curled upwards with my tips dyed blonde. We were the epitome of a boytjie with white square toes, earrings and a wife beater. One day I will get him back for this (hello premature balding). I've been with George every day; I was an extension of him. I was his curtain and his mop. I was the ivy to his headwall and the awning to his forehead.

I'll always be here, until I recede, oh well.

Though some things may change there is always a constant.

CONSTANT
-LAGER-



Michael did very well in this project, thanks, in no small part, to the heuristic approach he employed. Or, as we call it from an assessment perspective, his process was exceptionally thorough. Process is the amount of effort a student has put into weighing a multitude of potential concepts and creative directions and exhaustively prototyping these through an array of scamps – rough mock-ups of ideas – before settling on the most effective one. There is always a chance that the big idea for a campaign will come as a bolt from the blue but, in the long run, it would be hopelessly naïve to expect one of these every time. Hence the crucial importance of heuristics, or process: it is imperative to try out every possible idea in order to know how to separate the good from the bad and the just plain ugly.

However, the story does not end here. Applied heuristics was to yield even bigger fruit from the dialectic flow of creative process. As Michael's copywriting navigator I sensed his inspired long copy for his fictional beer brand might be destined for greater rewards than those offered by a job well done in a project forming part of the Vega curriculum. There certainly was a tremendous amount of potential here that could be further unlocked with further evolution and iteration. I suggested to Michael he revisit the project, but this time attempt to align his concept of "constant companion" to an extant brand in the marketplace that already possessed such a value.

After much head-scratching, wool-gathering and spit-balling, we settled upon Lion Matches as being a brand whose narrative was beautifully aligned with that of Michael's. It is universally recognisable; uniquely South African; simultaneously humble and iconic and, most importantly, imbued with a sense of something that will always be around and that you can always depend upon. In other words, Lion Matches are just like the jeans, hair and beard Michael wrote about for Constant Lager.

We also decided that such a powerful idea also needed to be carried by an equally powerful aesthetic. Visual Communications navigator Shane de Lange was brought into the consultation process and viscom students Robyn Newham and Liezl Fourie, together with photographer Nick Gordon, were enlisted to give the print ads exactly the right kind of look and feel to suit the mood of the pieces. Michael's painstakingly re-written copy was now also carefully crafted so that each individual story, despite being different, shared the same title and closing line to emphasise the USP of constancy. A box of Lion Matches was lightbox-traced; the type was beautifully set; all photographs were similarly treated and, ultimately, all elements of the final execution were expertly resolved to produce a smart, sophisticated and highly original print campaign for a beloved South African brand. Here they are in their final iteration:

Your friend til the end

I've been with George since a young age. By the time he turned 3 I was already hanging around his ears and flowing in the wind. He had a big brown mop of me on his little head. As he grew so did I. Haircut after haircut, I came back every time; I was persistent like that. All the fun really began in college – that's when he started to experiment with me. I emerged from his shaved head like sharp, shiny antlers; the menacing Mohawk spikes of anarchy and chaos. When we entered a room he roared like a majestic Stegosaurus and all the leather-clad ladies came running. Once the point had been made, he shaved my sides, left me on the top, and flopped me over the back. I was the dreaded mullet: hanging from a close-cropped cranium just above his collar, I curled upwards with my tips dyed blonde, the ultimate achey-breaky mistake. We were the epitome of boytjiedom with our white square-toes, diamond earrings and Jack Daniels wife beater. After this fraught phase had passed I became the coolest combover in town while George jammed vintage synth in an uber-obscure post-pop ensemble who you could only watch if you were on guest list. I've been with George every day; I am an extension of him. I am his curtain and his mane; I am the ivy to his headwall and the awning to his forehead. As much as we both change, I am always there: his constant companion on the path to manhood.



Your friend til the end

James and I go way back, man. I mean: way, way back. After all, the little dude learned to walk in me. I shared his first footsteps and got crayon etched into my fabric when he decided to graffiti his dad's study at age 4. After that I felt the wooden spoon just as much as the poor guy did. He grew up quickly after that. When he listened to Eminem and met Sha'unique outside the local record shop just to spit rhymes and talk smack, that's when I hung lower than his parents' expectations for him. Next, James threw away my bagginess for something a little tighter. Before we knew it we were in some anti-folk indie band that no one had heard of and found ourselves caring a little more than we should about animal rights. All James gained from this period was a lessened chance of heralding offspring later in life. After this he tossed me in a tub, chucked some colour in, went to AfrikaBurn and chased around a girl called Rain who hadn't shaved for a while. We're having quite the journey the two of us. I've been acquainted with his backside – and his frontside – so tight that I am his second skin. As much as we both change, I am always there: his constant companion on the path to manhood.



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Since the Loeries have made it clear that they judge work predominantly according to its ability to deliver instant impact, the long copy-driven Lion campaign was instead entered into the prestigious Pendoring Awards where judges pay a lot more attention to the care and crafting of work. At the 2014 Pendoring awards, in the hotly-contested “Truly South African” student category where all work in all languages and in all mediums is considered, Lion took home a Silver Pendoring which was the ONLY award given in the entire category. Testament indeed to the pedagogic power of heuristics.





Seventh Annual IIE Celebration of Teaching and Learning

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"The Truth about Numerical Modules: A Student's Perspective"

*Submitted by:
Elfriede Conradie, Student Support*

Introduction

This research study aims to describe students' perceptions of their poor academic performance in numerical modules at an educational brand of a higher education provider in Cape Town. The study will focus particularly on the perceptions of first and second year Bachelor of Commerce students of 2014 who had to complete the Accounting, Statistics and/ or Economics modules. The reason for conducting the study originated from the concerning, high amount of at-risk students in the first and second year cohorts in numerical modules. Several variables will have a potential influence on the outcomes of this study, such as students' numerical background or literacy, students' class attendance and students' participation in class and after hours. The results will be particularly interesting to the higher education provider's campus management so that the necessary steps can be implemented to support struggling students in these modules. It will also be of interest to the lecturers of these modules who can subsequently differentiate and improve their teaching methods, as well as Academic Development Co-ordinators who can offer and arrange appropriate academic support to students. The researcher will not be able to generalise the findings to other higher education institutions but will be able to broadly generalise it to the other campuses of the specific higher education provider.

Literature review

Currently in South Africa, the higher education system is under immense pressure to increase throughput in terms of numbers and diversity of its student population and also to ensure the provision of quality education (Jaffer, Ng'ambi & Czerniewicz, 2007).

Du Plessis and Gerber (2012) highlighted the problems within the education system itself, such as ongoing changes to the curricula, type of teacher training, inadequate support to teachers and the availability of quality learning and teaching materials which all contributes to students' academic preparedness. Large (Nicol & Boyle as cited in Jaffer, Ng'ambi & Czerniewicz, 2007) and overcrowded classrooms as well as difficulties experienced by teachers to manage activities also pertain to students' poor performance in general (Howie, 2003).

Kemp, Fletcher and Middleton (2011) suggested that the major teaching and learning challenges faced by higher education is focused on student diversity which includes diversity in students' academic preparedness, language and schooling background. Students come to tertiary institutions with varying levels of experience, especially numeracy experience. Many students may be under-prepared in that they do not have the necessary numeracy skills necessary for higher education due to gaps in their foundational disciplinary knowledge (Jaffer, Ng'ambi & Czerniewicz, 2007).

Quinnell and Thompson (2005) suggested that tertiary educators expect that students have developed satisfactory numerical skills from their past studies of mathematics and accounting at high school. Educators also expect that students are able to transfer and apply these numerical skills to their studies at tertiary level.

Research done by Quinnell and Thompson (2005) proposed that numeracy is not always seen as a "transferable skill", but rather a "transferable anxiety" because students transfer their maths anxiety and they do not see the relevance of numeracy to their studies. Coordinators of numerical courses noted that students are poorly equipped in numeracy skills, have little confidence in their mathematical abilities, are nervous about the quantitative content of their modules and often withdraw early in the semester (Kemp, Fletcher & Middleton, 2011).

According to Gracia & Jenkins (2001), learning skills and personal skills are important for effective learning. Students are not always aware of what workload is appropriate for college-level courses and have difficulty with modules because they do not know how to direct their efforts (Zinn, Magnotti, Marchuk, Schultz, Luther & Varfolomeeva, 2011).

Academic failure creates a major financial and emotional burden for students as they struggle to deal with failure (Gracia & Jenkins, 2001). Therefore, a great deal of focus should be placed on strategies for enhancing student involvement, to increase retention rates and reduce failure rates in numerical modules (Kemp, Fletcher & Middleton, 2011).

Based on the literature presented above, the researcher believes that an opportunity exists to conduct research that aims to identify the reasons why students perceive they are performing poorly in numerical modules. The outcomes of this study will add value to how students are supported academically in numerical modules at the specific higher education provider's educational brand.

Research Methodology

A qualitative approach was used to guide the researcher to obtain all the required information from the students. According to Creswell (2002), qualitative research is an inquiry approach useful for exploring and understanding a central occurrence or phenomenon.

This research study focused on using exploratory and qualitative research, which requires open-ended methods of data gathering and analysis (Gracia & Jenkins, 2001). The goal of a qualitative research design is to explore areas where limited information exists and to examine the characteristics, attitudes and needs that distinguish individuals or groups (Du Plooy, 2007). A non-probability purposive sample of a known-group of students was selected. According to Trochim (2006), purposive sampling is when one usually has one or more specific predefined groups in mind to use as a sample.

A. Sample:

The sample consisted of 10 students from the first and second year cohorts enrolled on the Bachelor of Commerce programme at a higher education provider in the academic year 2014. All the first and second year students' academic profiles were used whereby students who failed or under-performed in numerical modules such as Accounting, Statistics and/ or Economics were selected. Equal numbers of students were drawn from these two year groups with an even balance of students in terms of year of study and academic profile.

B. Data collection:

The instrument that was used for the purpose of this study was semi-structured interviews. According to Menter, Elliot, Hulme, Lewin and Lowden (2011) a research interview is a dialogue aimed at obtaining information on a certain topic of interest. All selected students were approached through a standard e-mail invitation that explained the purpose of the research and their agreed participation in the study. Students were informed before commencement that interviews were recorded (audio only) for analysis and quality purposes.

The researcher endeavoured to provide the same or similar contexts and settings for each interview. The interviewer asked students semi-structured, open-ended, free-narration and probing questions to determine students' perceptions and reasons for poor performance in numerical modules in school and in their current studies. These interviews generated data that is rich in content.

The interview schedule was derived from existing literature and included questions that covered topics such as past experience in numerical modules, attitudes towards numerical modules, experience and reflection on assessment failure, responsibilities and personal reflections as well as suggestions for possible academic support in numerical modules. Table 1 below represents the interview schedule with questions that were used during the interviews. The researcher grouped the questions into relevant topics and data was analysed thematically. This allowed a detailed analysis of students' responses.

Table 1: Semi-structured interview schedule

TOPIC	INTERVIEW QUESTIONS
Background in numerical modules	1. Did you do accounting until Grade 12? 2. Did you do mathematics until Grade 12? 3. How did you experience accounting in school? 4. 4. How did you experience mathematics in school?
Attitude towards numerical modules	5. What is your attitude towards numerical modules at a tertiary level?
Work ethics	6. How often do you attend sessions for numerical modules? 7. Are you able to keep up with the pace in the numerical module sessions? 8. How much time do you spend on numerical modules at home by doing pre-reading, exercises and revision? 9.1 How do you prepare for accounting assessments? 9.2 How do you prepare for economics assessments? 9.3 How do you prepare for statistics assessments? (Questions 9.1 - 9.3 are depended on year of study and modules failed)
Perception of why student is failing numerical modules	10. Why do you think you failed the _____ assessment? (Researcher used student's academic transcript to determine whether student failed accounting, economics or statistics) 11. What do you think can you do to improve your results in _____? (Failed module used as mentioned above)
Approach to lecturer/s for support or help	12. How often do you approach your lecturer when you had difficulty with _____? (Failed module used as mentioned above)

TOPIC	INTERVIEW QUESTIONS
Possible support required	13. What type of academic support would you like to receive to assist you to successfully pass numerical modules? 14. What do you think about a possible mentorship/ tutor programme for _____, where you attend a question and answer session once a week? (Failed module used as mentioned above) 15. How likely would you be to attend a _____ foundation/ bridging workshop before the semester starts to help you with the basic concepts of the module? (Failed module used as mentioned above) 16. What is your opinion about streaming groups from the first year depended on whether students had accounting in school?

C. Ethics

Participants were fully informed of the nature and purpose of the study; thus provided informed consent for their participation in the study. They were informed that they have the right to withdraw themselves or their responses at any time during the research process. The researcher ensured that participants were not psychologically or physically harmed in any way.

Data analysis and explanation of results:

A. Interview procedure

For the purpose of this study, data was collected by interviewing 10 first and second year Bachelor of Commerce students (referred to herein as the participants), to determine their perceptions of why they performed poorly in numerical modules. Five of the 10 participants were selected from the first year group and the remaining five participants were selected from the second year group. There was also an equal balance between male and female participants. The participants were invited either through an e-mail invitation or through a follow-up phone call and an interview was set up at a time most suitable for the student.

According to Woods (2011), the limitations of qualitative interviews are; the complexity of quantifying and analysing answers, misleading questions and possible bias. In order to ensure validity, the interview questions were formulated in a simple language and the wording carefully chosen to avoid any confusing or ambiguous responses. Reliability is ensured through commitment to consistency throughout the interviewing process, transcribing and analysing the findings.

The interviews were conducted by the same researcher and in a quiet room away from any noise, fellow students and lecturers. On arrival, the researcher introduced herself and explained to the participant the reason for the interview and the value that his or her honest responses will add to academic support provided at the specific educational brand of the higher education provider.

B. Data analysis procedure

Data analysis is described by Bogdan and Biklen (2003) as the process of systematically searching and arranging interview scripts and other materials to enable one to establish findings. The data collected from all the interviews was transcribed by the researcher and, during this process, responses were noted down as it is considered an essential stage in data analysis. The transcribed data was then read and re-read several times and the recordings were listened to several times to ensure accuracy.

After the researcher transcribed the qualitative data obtained from each interview, a thematic analysis was used to analyse the data. Boyatzis (1998) suggested that thematic analysis is when the researcher develops codes that serve as labels for sections of data. These labels attach meaning to the data. A thematic analysis also helped the researcher to move the analysis from a wide amount of information towards discovering patterns and developing themes.

The process that was followed during the thematic analysis process consisted firstly of manually coding the transcribed data and secondly identifying common themes amongst the codes through the use of a mind map (Braun & Clark, 2006). During the final stage the over-arching themes identified have been clearly defined and accompanied by a detailed analysis.

C. Results

The thematic analysis process that was applied elicited key themes that have been labelled as “Past experience in numerical modules”, “Learning environment” and “Lack of effort”.

Past experience in numerical modules

This theme is defined by different levels of high school education amongst participants. The majority of the participants indicated that they had pure mathematics until grade 12, but most of these participants did not select accounting as an elective subject in high school. Many studies have attempted to identify and analyse the impact of prior mathematics or accounting knowledge on academic performance in the first year level of BCom studies. Gracia and Jenkins (2001) suggested that students with prior accounting or “A” level mathematics perform better statistically in the numerical aspects of courses.

Bartlett, Pell and Pendlebury (1993) contend that the advantage of having prior accounting knowledge can be seen in the early stages of first year accounting marks. This shows that there is definitely a correlation between prior learning in numerical modules and current performance at tertiary level in numerical modules.

When the participants were asked their opinions about streaming first year groups based on prior education in numerical modules, the majority indicated that they wish that they were placed in a group that did not have accounting in high school. This would have helped them to cope with the change from high school to tertiary studies, they would have been able to keep up with the pace in class and they also would have been more comfortable to ask questions in class. Many of the participants struggled with the basic concepts in numerical modules (especially accounting) and would have liked the lecturer to revise and test them on these concepts more often. When participants were asked their opinions about a foundations or bridging workshop for accounting, one of the participants positively responded by saying: *"I wish that option was available when I was in first year"*.

The lack of confidence with numerical modules at tertiary level is not only due to a lack of basic knowledge in numerical modules, but it is also due to an anxiety towards numbers. Many of the participants indicated that they find numerical modules in the BCom programme challenging and difficult. One participant remarked that: *"I feel that when it comes to numerical modules I am slower than everyone else"*. Some participants even mentioned that they developed a mental block towards numerical modules which lead to insufficient or incorrect preparation and poor performance.

Learning environment

Successful teaching and learning is largely dependent on the learning environment created and managed by the lecturers and academic staff. Many of the participants mentioned that their lecturer plays a very important role in whether they succeed in numerical modules or not. The participants indicated that their class attendance for numerical modules was good, but they were not able to keep up with the pace in the class and lecturers rushed through the content. Scott Jones and Goldring (2014) mentioned that students are often "rushed" through the numerical concepts and methods without allowing sufficient time to practise their skills. Although this could be the perception of a student with no prior education in accounting, it can also be due to the fact that almost all the participants mentioned that they do not prepare for numerical module sessions. This subsequently leads to a lack of confidence to participate in the learning environment.

According to Gracia and Jenkins (2001), many students are fearful that their answers will be incorrect and this inhibits participation in class which may lead to lack of confidence and inability to engage with the learning situation. One of the participants remarked that: *"if you ask questions in class, then you are holding everyone up and people get frustrated with you"*.

Even though many participants indicated that their lecturers are approachable, the majority of the participants said that they feel more comfortable to approach a fellow student if they do not understand. One of the participants stated that: *“it can be embarrassing when you are behind for some reason or another and you can’t really determine why that is, so I would rather ask a friend”*. Another participant also indicated that: *“I don’t enjoy the lecturer’s teaching style ... I will only ask him (the lecturer) if I have a simple question and I just need a simple answer then he is okay to answer it, but I feel like if I am really struggling I don’t want to ask him for fear that I am showing how much I am not understanding”*. In a study by Redmond, Quin, Devit and Archbold (2011) it became evident that a lack of accessible relationships between students and academic staff prevented students from seeking academic help.

Gracia and Jenkins (2001) focus on the importance of creating a non-judgemental classroom climate that encourages student discussion and actively supports student engagement. Many of the participants indicated that they would like to have regular tutor sessions (one-on-one or in smaller groups) to assist them with the work that they do not understand. These participants also stated that they will feel comfortable with a final year student as a tutor, as they can easily relate with them. A student tutor will also be able to give them advice and feedback on their personal experience in these numerical modules. A few of these participants also mentioned that they are currently getting additional assistance from a tutor at an extra cost.

Some of the participants said that they are not able to keep up with the pace in class because the lecturer does not provide them with handouts to supplement their learning and to assist them in preparing for the assessments. The participants indicated that they spend most of their time in class trying to keep up by making notes and writing down answers from the white board and do not always pay full attention to how calculations are done. One respondent stated that: *“we are not keeping up with him (the lecturer) all the time because we are trying to listen and write everything, he could give us notes and questions and answers on how to work it out”*.

The majority of participants indicated that their module manuals only contain answers to questions but not the steps on to how to get to the answer. Many of the participants are concerned about the correlation between their textbooks, module manuals and the assessments questions. Some of the participants stated that: *“the formats (in the test) last year was not the same as in the books”*, *“the module manual (of Statistics) does not correlate to what is in the textbook”*. The participants asserted that they would like to obtain additional exercises with answers to help them prepare better for assessments. A few of the participants suggested that these exercises and answers should be uploaded on an online database in order for them to access it on a regular basis.

Lack of effort

The majority of the participants pointed out that they usually prepare for assessments by making summaries of the theory and then working through exercises. Participants indicated that they use the exercises from class activities, textbooks, module manuals and past papers. Guney (2009) proposes a direct relation between academic achievement and academic commitment, which is measured by the number of hours a student allocates to studying the module on a weekly basis.

Almost all the participants admitted that they did not put enough time and effort into numerical modules. The majority only started preparing for assessments a week or two in advance. As mentioned in one of the preceding themes, students do not prepare for numerical module sessions and that also affects their overall performance. Studies have shown that homework has a positive effect on students' academic performance. A study by Dufresne, Mestre, Hart and Rath (2002) showed that time spent on homework has compensatory effects; students of lower abilities that are doing one to three hours of homework per week are able to achieve results that correspond with average ability students who did not do any homework. One participant also supports this and said that: *"with the numerical modules that I struggle with, it is no good to try and cram it in last minute, you need to go from the get go with getting help, you need consistency"*.

When the participants were asked whether they would be likely to attend a mentorship or tutor programme on a weekly basis in order to discuss problem questions, many of the participants indicated that they would definitely attend these sessions. On the other hand, one of the participants also admitted that: *"I might become a bit lazy to attend these sessions on a weekly basis, but I will attend one or two sessions before each test"*. A mentorship or tutor programme should always be structured in such a way to supplement a student's learning and it should never replace scheduled sessions with the lecturer.

Conclusions and Recommendations

The results of this research study indicate that it is reasonable to agree that students perceive that there are various factors that influence their performance in numerical modules. The data analysis highlighted three main factors or themes: students' past experience in numerical modules, the learning environment and a lack of effort in preparing for numerical modules. Numerical literacy is embedded in the way we live and work in today's world and it is extremely important that every student has the opportunity to be confident and successful in numerical modules (Ontario Education, 2004).

Even though the responsibility for learning must be placed mainly with the students, a supporting environment should be created by academic staff for students to be motivated to learn. Fortunately, what needs to be done is reasonably clear, but not easy. It became evident from the research results that students need academic support in order to succeed in numerical modules.

Academic support should be focused in two main areas: firstly to provide support for students lacking effective prior learning in numerical modules and secondly to provide support for students and lecturers alike in the learning environment.

According to studies by Gracia and Jenkins (2001) and Guney (2009), it is reasonable to agree that there is definitely a correlation between prior learning in numerical modules and performance in first year numerical modules. A lack of prior knowledge in numerical modules leads to multiple other problems for a BCom student, such as a lack of confidence, anxiety and falling behind. To rectify and limit these problems two mechanisms could be implemented: a foundation/ bridging workshop especially for accounting and streaming students according to whether they had pure mathematics or accounting in high school.

In order to provide effective support in the learning environment, lecturers should focus on appropriate classroom management where the student will feel safe and comfortable to solve numerical problems. Lecturers should constantly engage students in the learning environment, not only to keep them motivated but also to identify problems on a continuous basis. Students learn in different ways and it is important that the lecturers incorporate a variety of teaching and assessment strategies to ensure that every student has the opportunity to understand.

In collaboration with lecturers, academic support staff should design an effective procedure to track student failures and put appropriate strategies in place to support students, such as weekly mentorship or tutor programmes. Academic support staff, more specifically Academic Development Coordinators, should also assist lecturers to develop relevant and effective teaching strategies to improve academic support in numerical modules.

There is plenty of scope for further development of more specific academic support in each of the identified themes. Furthermore, the same research could be conducted for other problem modules at the specific higher education provider's educational brand. Future research could also be aimed at undertaking a comparative study with students that do well in numerical modules. Instead of only inviting students that struggle with numerical modules, a voluntary sample could be used whereby students are invited to approach the researcher if they feel they can add value to the study and provide the researcher with insight.

One of the limitations of this study that should be considered when doing future research of the same nature is the questioning techniques. Questions in the interview schedule should be more open-ended to encourage an in-depth and meaningful answer from the participants. The wording of questions should be considered with due care because certain words such as "failed" or "struggled" could trigger emotional responses from participants due to sensitive personal circumstances.

These recommendations, if explored and implemented into the educational process, will go a long way to improve the retention of students and subsequently increase pass rates, throughput and graduation.

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APPENDIX A STANDARD E-MAIL INVITATION

CAPE TOWN
Varsity Place
Belmont Office Park
Belmont Road
Rondebosch 7700
PO Box 420
Rondebosch 7701

T. (021) 685 5021
F. (021) 685 3060
E. info@varsitycollege.co.za
www.varsitycollege.co.za



Dear (student name),

We are conducting a study to determine STUDENTS' PERCEPTIONS OF WHY THEY STRUGGLE WITH NUMERICAL MODULES. The research findings will be presented at the IIE Celebration of Teaching and Learning Conference that are taking place in July 2015.

The results of this study will be of particular interest to the Varsity College Cape Town campus management so that necessary steps can be implemented to support students in these modules.

Interviews of approximately 60 minutes will be conducted by a Student Support member and it will take place at a time suitable for researcher and student.

We would greatly appreciate your participation in this study. The information you provide will be kept strictly confidential and anonymity will be ensured.

Your participation is voluntary and is greatly appreciated.

Yours sincerely,

Elfriede Conradie
Student Support
Varsity College: Cape Town

KWAZULU-NATAL

DURBAN NORTH
T. (031) 878 2038
F. (031) 868 2268

WESTVILLE
T. (031) 266 8400
F. (031) 266 9009

PIETERMARITZBURG
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GAUTENG

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F. (011) 784 9161

MIDRAND
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PRETORIA
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WESTERN CAPE

CAPE TOWN
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EASTERN CAPE

PORT ELIZABETH
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APPENDIX B
PARTICIPANT CONSENT FORM
Annexure C.3: Participant Consent Form



PARTICIPANT CONSENT FORM

RESEARCH TITLE: The Truth About Numerical Modules: A Student's Perspective

1. INTRODUCTION

You are invited to participate in a research study about students' perceptions of why they struggle with numerical modules. The main purpose of this study is to gain an in-depth understanding of students' perceptions of why they think they are performing poorly in numerical modules in higher education.

The information in this consent form is provided to assist you in deciding whether you would like to participate in this study. If you decide to participate, you will be asked to undergo an individual interview where you will be asked questions about your perceptions of why you struggle with numerical modules.

It is important that you fully understand what is involved if you agree to participate in this study. If you have any questions that you feel are not addressed or explained fully in this consent form, please do not hesitate to ask the researcher for more information. You should not agree to participate unless you are completely comfortable with the procedures followed. The contact details of the researcher are as follows:

Email address: econradie@varsitycollege.co.za

Contact number: 021 685 5021

Office number: 021 685 5021

2. THE NATURE AND PURPOSE OF THE STUDY

The primary goal of this study is to describe students' perceptions of their poor academic performance in numerical modules.

3. EXPLANATION OF PROCEDURES TO BE FOLLOWED

You will be interviewed individually for 30 – 60 minutes (or until sufficient information is obtained). During the interview process you will be asked questions about your background in numerical modules, your attitude towards numerical modules, work ethics, perception of why you failed a numerical module, whether you approached a lecturer for support and suggestions on possible support that the higher education institution can provide in numerical modules.

4. RISK(S) OR DISCOMFORT INVOLVED

You will be allowed to choose the most suitable time which will not interfere in your studies. You will also be interviewed in a quiet room away from any fellow students and lecturers.

5. POSSIBLE BENEFITS OF THE STUDY

Your feedback and suggestions will provide a basis for possible academic support structures that can be implemented at an educational brand of a higher education provider to better assist students in numerical modules.

6. WITHDRAWAL CLAUSE

- Your inclusion in this study is purely voluntary;
 - If you do not wish to participate in this study, you have every right not to do so;
 - Even if you agree to participate in this study, you may withdraw at any time without having to provide an explanation for your decision.

7. CONFIDENTIALITY

ALL information gathered in this study will be held in strict confidence and only the researcher will have access to the original data. Results will only be retained for as long as required for the research purpose and will thereafter be depersonalised and presented in such a way that you will not be identifiable.

8. CONSENT TO PARTICIPATE IN THIS STUDY

I have read the information presented to me in a language that I understand and I understand the implications of participating in this study. The content and meaning of this information have been explained to me. I have been given the opportunity to ask questions and am satisfied that they have been adequately addressed. I understand that I am under no obligation to participate in this study and that I can withdraw from this study at any stage without having to provide an explanation for my withdrawal. I hereby volunteer to take part in this study.

I have received a signed copy of this informed consent agreement.

PARTICIPANT

Full Name and Surname: _____

Signature: _____

Date: _____

WITNESS

Full Name and Surname: _____

Signature: _____

Date: _____

APPENDIX C
ETHICAL CLEARANCE / WRITTEN PERMISSION OF PRINCIPAL



ETHICAL CLEARANCE COMMITTEE OUTCOME

The Ethics Committee of The IIE has evaluated your proposed research based on the information provided as well as on the basis that your proposal will be approved by the celebrate teaching and learning evaluator. This approval is based on the assumption that the information you have provided is true and factually correct. The outcome is as follows:

1. Student Name (in full) and Student Number

Name:	Elfriede
Surname:	Conradie
Contact Number:	021 685 5021
E-Mail Address:	econradie@varsitycollege.co.za

2. Supervisor's Name, Designation and Contact Details

Submission to Celebrate Teaching and Learning

3. Title of the Research

The Truth About Numerical Modules: A Student's Perspective

	Proposal is approved subject to the following conditions:	Yes	No
Conditions	1. Please note: This panel has not considered the merits of the proposal as that is up to the decision of the Celebrate Teaching and Learning Panel; 2. The researcher will only use this data for research purposes; 3. The researcher will not be permitted to refer to The IIE/Varsity College or use The IIE/Varsity College name, logo, brand or any other identifiers in any way. The IIE/Varsity College need to be referred to in a generic manner, for example 'An HE provider, an educational brand of an HE provider'; 4. No student names may be used within the research; 5. Written permission must be obtained from the principal of the campus/campuses and agreement from the national office of the brand that is going to be part of the sample before any research begins; 6. The researcher will need to obtain informed consent in writing from all of the participants in his/ her sample since this is not an anonymous interview process so as to ensure the ethical treatment of all participants. Records of this must be kept for a minimum of 5 years; 7. The Annexure C needs to more clearly explain to students that this is in no way psychometric testing or counselling of any sorts and that it is merely to get their perception on why they struggle with numerical modules; 8. No mention may be made to students that this could in any way improve their performance; 9. The sessions may ONLY be used as a data gathering exercise of students' own perceptions. No counselling/advice/analysis of any form may be administered to the students; 10. "The voice" in the consent form should remain the same. The tone changes from formal (the participant) to (informal – you will...) throughout and needs to be amended. 11. Please note that a consent form should be written in language that a student will understand, so the committee recommends that the formally written sections are changed to be more informal and that they speak directly to the student/ participant; 12. The committee is not comfortable with the idea that the participants will be randomly selected from a group of students who failed particular numeracy modules. The fact that samples in qualitative studies are not usually randomly selected aside, the committee expressed an ethical concern with the selection of students based on their grades. The suggestion is that the researcher makes use of a voluntary		

	sample where students are invited to approach the researcher if they feel they are struggling with a numeracy module and feel that they could add value to the study and provide the researcher with insight. This is also more in line with a qualitative research approach; 13. The questions for the semi-structured questionnaire are leading in some instances and the researcher could consider making some of these questions more open-ended; 14. The researcher needs to be very sensitive when asking students who failed about the reasons why they failed or why they struggle (these could include some very sensitive personal circumstances). The committee recommends that the word "failed" is not actually used in the interviews, unless the student volunteers this information; 15. Consider comparisons with students that do well as a recommendation for future research; 16. There seem to be two titles: "The Truth About Numerical Modules: A Student's Perspective" "Students' perceptions of why they struggle with quantitative modules" The first title is a bit ambitious - to claim the "truth" based on this research is out of scope; 17. Although the proposal indicates individual interviews, the consent form doesn't – maybe requires a little re-wording; 18. The title refers to "perceptions", but the interview schedule does not only reflect "perceptions", in one part. 19. The researcher will need to sign and return this annexure to Victoria Newport-Gwilt.		
NOTE TO ALL RESERACHERS: ALL ORIGINAL DATA COLLECTED MUST BE RETAINED BY THE RESEARCHER FOR A MINIMUM OF 5 YEARS.			

The Independent of Institute Education Pty Ltd, including [Varsity College], its associated companies, employees, contractors, representatives and directors, against all claims which may arise in connection with or as a result of any loss, damage or injury to you as a researcher entering into an agreement with a participant in the course of your research, provided that such loss, damage or injury is caused by the gross negligence or intentional act/s or omission/s of The Independent of Institute Education Pty Ltd, including [Varsity College], its associated companies, employees, contractors, representatives and directors.

HEAD OF INSTITUTE/ REPRESENTATIVE

Name: Marla Koonin [Research and Development Manager]

Signature:

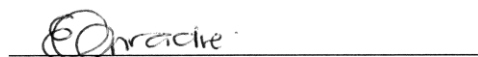


Date: 2/06/2015

RESEARCHER

Name: EUFRIEDE CONRADIE

Signature:



Date:

11/6/2015

WITNESS

Full name:

ALAN John Bird

Identity number:

5301 30 5064 088

Signature:



Date:

11/6/2015

WITNESS

Full name:

LYNETTE THOMPSON

Identity number: 700414 0190 08 8

Signature: L. Tough

Date: 11 JUNE 2015

By signing this letter I acknowledge that I have read and understood the conditions and that I may not deviate from the proposal submitted without a further application for consent.



Seventh Annual IIE Celebration of Teaching and Learning

2015 Celebration of Teaching and Learning

Paying it forward: Practicing Scholarship of Engagement in Design Education

Submitted by:

Enslin, C. & Cronje, F.

The question regarding Design Education in South African Schools

Reasons for the majority of South African schools' underperformance makes for constant debate, not only in the educational sphere but also in society at large. While the blame is generally laid on inadequate education resources and expertise (Modisaotsile, 2012), some voices ask the very relevant question: might it not be because teachers themselves are confronted by subject-specific challenges in the teaching and learning environment? Considering this as a historical dilemma, who needs to contribute to reparation? Albertyn & Daniels argue that in a bigger context of community engagement it is morally responsible and necessary for any Higher Education (HE) institution to contribute constructively to the global knowledge society (in Bitzer [Ed.] 2009). Although design teachers share a positive, constructive and impassioned approach to design teaching, they (for the most part) have not benefitted from professional developments in design teaching. Higher Education Institutions cannot ignore this need and as scholars of community engagement, Private Higher Education (PHE) is also obligated to contribute knowledge by paying teaching skills and knowledge forward.

The Challenge of Design as school subject

In the discipline of Design the issue manifests at secondary (high school) level where design teaching still receives scant recognition within the education system (Sidogi, 2013). Design as a school subject remains a major challenge, where its value is not yet fully accepted within the school system; consequently, not always well supported and easily stereotyped. The majority of design teachers still have to overcome a badly informed understanding of the nature, purpose and status of design as a subject as well as several negative stereotypes associated with the discipline. Most notable is the stereotype that design is a 'soft subject' for those 'creative learners that struggle with more challenging academic subjects' such as mathematics, science and biology. Design teachers face these challenges while handicapped by a generalised lack of training and experience in teaching the thinking and practice of design (Sidogi, 2013).

The Background of Platform 6

This paper reports on a project that was designed to facilitate teacher development and thereby to develop teachers as scholars. Initiated within the context of Boyer's Scholarship of Engagement, or Application (1990) Platform 6 is a training programme devised for secondary school design teachers (grades 10 to 12) on the pedagogy of teaching design thinking and practice, and is conducted as an official project of World Design Capital Cape Town 2014. Therefore, within a series of six workshops spanning eight months during 2014, a group of design Higher Education lecturers shared their skills in design with the community of teachers. The authors of this paper were an integral part of planning, driving and monitoring the roll-out and success of the initiative and therefore also attended all planning meetings, workshops and successive reflections flowing from the activities.

Introduction and Review of Literature

Design diversity and capability

A broad purview of design includes broad-based systems design, environmental and spatial design (architecture, interior design, urban planning, production design and civil engineering), communication design (graphic, web and game design), service and interaction design, product and surface design (fashion design, industrial design, mechanical engineering, textile and furniture design). Design can be classified as object making, systems making, image and message making, place making, experience making for business and public sectors (DEDAT, 2012). Design disciplines furthermore evolve and overlap as new technologies emerge and divergent skillsets are increasingly required to be able to develop and implement integrated solutions for these arising challenges.

Design as a discipline and act is practiced in product, process and systems development in commercial and social contexts, in real and virtual worlds. Tim Brown (2008, p.86), CEO and president of the renowned Design and Innovation Firm IDEO, explains that the thinking and practice of design have evolved into approaches towards social and commercial problem solving because innovation is a principal means of differentiation, of establishing a competitive advantage and importantly, of adding value to peoples' lives. The process of design comprises a spatial system to demarcate different but related activities which collectively form a continuum of innovation. Innovation cannot therefore be positioned as an episodic strategic tool. Social innovation, according to Ezio Manzini, has the very real potential to positively change our world into a meaningful environment. To reach this goal, however, society needs to activate 'socio-technical' design solutions (2015, p.1). The need for creativity and design practices therefore has moved from being an elitist nice-to-have, to essential practice for societal growth.

Positioning creativity, innovation and design

The practice of creativity, innovation and by implication, design, is often perceived as the domain of the creative spirit. While a truism, the notion as a constraint needs to be challenged. Firstly, a significant body of evidence presents innovation as a general human specification - everyone is creative and the ability to be creative and innovate can and should be developed and enhanced in all of us (Kaye, 2013). Recent literature highlights the rise of the creative class (Florida, 2002) as well as the rising need for design thinking and creative leadership in all spheres of society and business (Agbor, 2008; Brown, 2008; Kimbell, 2009).

Reconciling the requirement for a more creative and innovative society and commercial world with the fundamentals of an education and career in design still seems to be a challenge for incumbent school leaderships, wider teaching fraternities and significant numbers of secondary school learners' parents facing those all-important subject choices at senior secondary school level.

Soberingly, Robinson (in Azzam, 2009, pp.22–26) contends that instead of promoting creativity, society and schooling may actually be ensuring its systematic demise. Teal (2010, p.295) in agreement, reasons that learners are generally unable to cope effectively with the ambiguities of creativity.

Design should, however, not be positioned solely as abstractly creative in nature and output. Norman and Klemmer (2014), having studied the design curriculum and teaching and learning strategies of tertiary institutions in Asia, North America and Europe, explain that the stereotyping of design as subject and design students is a universal challenge. Learners and students are encouraged to take design because they may be labelled as creative when they express aversion to STEM subjects. The misguided perception that design involves a mainly aesthetic focus on craft still persists. This view presents a significant barrier to attracting those design learners and students who, according to Norman, can meet the modern demands of design with increased insight and skill in scientific methods of approach, procedure, solution finding and testing. Design thinking and innovation applies an interdisciplinary skillset and involves various mental states in a linear and non-linear manner (Teal, 2010, p.296). Lau, Ng and Lee (2009, p.71) in a study of numerous approaches to creativity training in design education, confirm this thought direction, ranging from critical analysis required to identify the nature of a complex, ill-defined or “wicked” problem, divergent thinking for generating alternative solutions or convergent thinking to sort and prioritise options and creative decisions. The designer will skilfully analyse and synthesise patterns and reassemble them to identify what is original and meaningful (T. M. Amabile & Khaire, 2008, p.107; Cassim, 2013, p.196).

Teaching design thinking and practice

Theories of organisational management towards building a culture for creativity, design thinking and innovation and educational theory in respect of teaching design thinking and practice have much in common. Amabile and Khaire (2008, p.102) reflect the views of a colloquium of leading scholars on creativity in organised environments with the premise that “one doesn’t manage creativity. One manages for creativity”. The conclusion is an appreciation of all the different creative types, diverse perspectives, individual interests and skilful support of the dynamics combined in the phases of design and the building of a group culture to guide and support idea development, enable collaboration and decrease fear of failure (T. Amabile, Fisher, & Pillemer, 2014, p.55; Palus & Horth, 1996, pp.2–5)

It is argued that design teachers teach for creativity to guide and support learners in their general development. Researchers use analogies such as shepherding or gardening to explain how creativity, design and innovation is guided and managed – acts of preparing creative soil, nurturing the seedlings of ideas in order to create a culture in which creativity can thrive (T. M. Amabile & Khaire, 2008). Literature on the teaching of design presents guidelines similar to the theories for building an organisational design culture for innovation.

The design teacher is encouraged to guide learners in discovering that innovation often results from unexpected connections garnered from a multiplicity of sources, or as Norman and Klammer (2014) argue, in the realisation that the subject of design calls upon all of the humanities, the social, physical and biological sciences, engineering and business. Design teachers teach for creativity and innovation to overcome functional fixedness by stimulating interdisciplinary subject curiosity and exploration.

Design education furthermore promotes a pedagogy that encourages learners to approach all activities with a view to construct their own knowledge, to think creatively, collaborate with others and benefit from diversity rather than promote homogeneity. Robinson (in Azzam, 2009, pp.22–26) emphasises the phrase “teaching for creativity” and like Savery and Duffy (in Wilson, 1996), positions creative and collaborative learning in a constructivist paradigm, where understanding is socially negotiated as learners test their own- and examine the understanding of others. Teaching implies following a deepening approach to engage the acquired knowledge of students, stimulate their intrinsic curiosity at a conceptual level and encourage collaboration with peers and teachers in active learning (Biggs & Tang, 2011).

Teachers of design, much as leaders and managers of creative organisations, should be knowledgeable enablers of deep learning built on design thinking and practice. The current design teacher is challenged in building a learning culture that integrates and accepts different creative types, diverse perspectives and individual interests; guides and supports idea development, enables collaboration, decreases fear of failure and skilfully supports the phases of design.

Research Methods

This research study aimed to identify and share insights into the challenges that educators of design and, by extension, young designers currently face at secondary school level. Platform 6, as an official World Design Capital 2014 Project, is a training programme for secondary school design teachers, conceived to explore and support the teaching and learning environment in grades 10 to 12 on the methodology of teaching design thinking and practice. The programme offers valuable opportunities to conduct qualitative-exploratory research and derive some understanding of the challenges facing educators and young designers, develop key insights and offer initial focus points for future consideration and implementation. A collaborative union of Cape Town based tertiary design schools, the Western Cape Department of Education (Design and Visual Arts) and the department’s curriculum consultancy resource, Rock City Foundation (RCF), developed Platform 6.

As a World Design Capital Cape Town project, this study is exploratory in scope and nature since it was limited to a sample of National Senior Certificate (NSC) schools in the Western Cape.

The relevance of insights to other provinces in South Africa and to IEB (Independent Examinations Board) schools throughout South Africa requires further research. Of the 430 schools that follow the NSC curriculum, 88 offer Design as a grade 10 to 12 subject (Buchner, 2014).

These schools were all invited by the Western Cape Department of Education (Design and Visual Arts) to participate in the Platform 6 project. Due to geographic programme constraints and other practicalities involved in the delivery of programme content and holding focus group oriented team discussion sessions, Platform 6 was limited to a maximum of twenty-four schools in the first programme phase.

The participating schools serve a broad range of learners, ranging from affluent communities with a long-standing history of offering arts subjects, to schools serving mainly previously disadvantaged communities where art subjects, specifically design, are at best recent additions to the school curricula (Buchner, 2014).

Qualitative-exploratory research methods were employed due to the paucity of available findings about the teaching and learning environment of design teachers in South Africa. It was adjudged to be a useful method to gain real world insight (Stebbins, 2001, p.7) into the dynamics of design teaching in grades 10 to 12 in schools in the Western Cape.

The Platform 6 programme consisted of a six-part series of 5-hour workshop sessions on the pedagogy of teaching design thinking and practice. Sessions were interspersed with and bridged by small team discussions comparable to focus groups (Seale, Gobo, Gubrium, & Silverman, 2004, p.65). Five teams of approximately six design teachers per team were guided and supported by workshop presenters and facilitators to help identify and delve deeper into key issues and challenges in the teaching of design in grades 10 to 12. To collect data and ensure, in particular, the authenticity and representativeness of themes emerging from discussion sessions, two facilitators (the authors of the paper) attended all of the workshop sessions and formed a working unit to analyse discussion content and the systematic classification and tracking of pervasive themes (Adams, Khan, & Raeside, 2014, p.161; Kothari, 2011, p.110). The exploratory groundwork and identification of key themes resulting from the small team discussions were followed up with an online survey comprising of open-ended questions that presented teachers with the opportunity to freely reinforce their own experiences and the individual challenges encountered within their teaching environment (Marczyk, DeMatteo, & Festinger, 2005, p.153). Content analysis of the latter reinforced the key themes that emerged from small team discussions in workshop sessions and presented specific examples of the key issues and challenges encountered by teachers in the teaching of design thinking and practice in grades 10 to 12. Of the participants, 17 of the 24 schools involved in the workshop series and small team discussion sessions submitted answers to the questionnaire. The exploratory groundwork also included in-depth interviews with the head of Design and Visual Arts at the Western Cape Department of Education as well as a director of the department's curriculum consultancy resource, Rock City Foundation (RCF). The purpose of the two in-depth interviews was to clarify and gain further insights into the key themes that emerged from the teacher discussion sessions and surveys.

The paper also references the primary research and development of the Western Cape Design Strategy (2012). The Western Cape Department of Economic Development and Tourism (DEDAT) is the first provincial government in South Africa and Africa to have produced a strategy for design. It has mandated the Cape Craft and Design Institute (CCDI) to co-ordinate and facilitate the implementation of this strategy. The purpose of the strategy is to embed design as an important economic tool in order to unlock innovation and to drive competitiveness at state and provincial level. The envisaged strategic outcome includes growth in innovative business models, transmogrification of abstract ideas to desirable objects and services and addressing societal impediments to improved living environments. The Western Cape Design Strategy is the result of not only broad baseline research and consultation, but also a review of international benchmarks and round table conversations with role-players in the Western Cape (DEDAT, 2012, p.6). Of significance to this paper is the stated aim in the Western Cape Design Strategy to support the development of the “next generation of design practitioners and design thinkers” and explicitly to promote the purpose, scope and career pathways of design for current and future learners (DEDAT, 2012, pp.14–15). This paper, based on insights gained from the exploratory research elucidated from the official World Design Capital 2014 project, Platform 6, reinforces the importance of the above goals and strengthens insights and focus points towards finding solutions.

Many of the complexities and intricacies involved in promoting the purpose, scope and career pathways of design for current learners however, still need further investigation and exploration in an abductive style of scholarship Henn (2010, p.47) presenting the reasoning of conjecture, or ‘what could be’.

Three central themes emerged from the content analysis of team discussion sessions and surveys. Firstly and most significantly, school leadership and management, the teaching and parent bodies and learners in general, still largely misconstrue the basic concept of design as a school subject. There is a basic need to promote and explain the role and scope of design teaching and the status of design as a subject. Secondly, design teachers are confronted with easy stereotyping and therefore lack adequate support and promotion of their subject. The third challenge emerging as a key theme reveals that, although design teachers share a positive, constructive and impassioned approach to design teaching, they (for the most part) lack training and experience in respect of teaching the practice and thinking of design.

The abovementioned impediments to promoting and teaching design thinking and practice in grades 10 to 12 should be acknowledged as debilitating in nature and instead a case built for inspiring and supporting design learners within a South African culture of innovation. A discussion of the three key themes follows. Verbatim statements from discussion sessions and surveys are interspersed in italics in order to place issues in context and to share the narrative of Platform 6 design teachers (Adams et al., 2014, pp.161–162).

The Case for Promoting and Teaching Design Thinking and Practice

Theme One: Misconceptions regarding the purpose, scope and status of Design as subject

The exploratory research conducted through Platform 6 reveals that teachers of design are reasonably well informed and quite committed to the purpose and scope of design thinking and practice. They regard design as a valuable school subject to develop critical, creative thinking and problem-solving skills for commercial and social contexts – “design is all around us, woven into every aspect of our daily lives”. The majority of design teachers believe that design develops a way of thinking that is valuable for all subjects and vocational training.

However, these views are not widely shared within school leadership and management (governing bodies and principals), teachers and parent bodies and inevitably too, the learner community at large. This is a significant barrier to the proper positioning of the discipline and the value of design teaching. Teachers state that design is, at best, narrowly perceived as an aesthetic subject focused on craft learning in graphic or product design. Schools that are “art focused” seem to enjoy a more supportive environment in which creative output is celebrated, but the subject of design is nevertheless still perceived as minor or secondary to other art subjects. Its curriculum focus is, according to these teachers, equally misunderstood. A key theme reveals that design teachers routinely experience the role and scope of design as misunderstood, and consequently the healthy development of a culture of design thinking and education at secondary school level is frustrated. The net effect is that learners are discouraged from exploring design as a subject choice.

To make matters worse, design as a subject is not included in the designated list of school subjects approved as preparatory for the higher demands of degree studies. The Umalusi (the Council for Quality Assurance in General and Further Education and Training in South Africa) directive for certification of NSC schools specifies that learners who aspire to undertake degree studies be expected to perform satisfactorily in at least four subjects from a designated list of National Senior Certificate subjects (Umalusi, 2012:26). Whereas the subjects Visual Arts and Dramatic Arts are included in the designated list, Design as subject is not. This condition, according to design teachers and the head of Design and Visual Arts at the Western Cape Department of Education, is the central most influential factor deterring school governing bodies and principals from offering the subject design in grades 10 to 12, or in recommending the subject choice to learners and parents. Design teachers say that due to anxieties that surround learners’ subject choices, the confusion that currently exists around designated subjects, all compounded by a general lack of appreciation of the role and scope of design as subject and career choice, it is no surprise that school managements, teaching bodies and parents are rather dismissive of design as a subject choice.

There is some scope for reprieve, however. The same Umalusi directives for certification allow Higher Education institutions the prerogative, in terms of section 37 of the Higher Education Act, 1997 (Act No.101 of 1997), to determine specific admission requirements, levels of achievement and or combinations of recognised NSC subjects (UMALUSI, 2013). Teachers, school leadership and parents can play an active role in promoting design as a subject of importance. Unfortunately, the qualitative-exploratory research conducted through Platform 6 indicates that teachers, school leaderships, parents and learners are still generally ignorant about which public and private Higher Education institutions recommend or recognise design as a subject for further studies. Design teachers have identified a vital need for a central source of information about “where to study”. This, they believe, will greatly assist learners interested in pursuing higher certificate, diploma and degree studies in design.

Theme Two: Combating the creative stereotype clouding Design as Discipline

Misconceptions regarding the purpose of design, its scope and status have led to many negative stereotypes. The exploratory research conducted through Platform 6 reveals that these negative views exist widely within the broader teaching body, the school leadership and also parents. The dominant stereotype seems to be that design is a “soft” subject for learners who battle with academic subjects – “it is hardly acknowledged as a subject with substance, let alone one with academic merit”. Negative views about design as subject also extend to the negative profiling of its learners and teachers.

Research conducted towards the development of the Western Cape Design Strategy further underscores the lack of understanding and stereotyping of the role of design thinking and design practice in innovation. This study references the Danish concept of a Design Maturity Ladder, a metric that considers an organisation’s perception and use of design in enhancing creativity, innovation and competitiveness. The metric differentiates between organisations that perceive design at a limited level as merely a tool for styling and mature, creative organisational cultures where designers work within senior management teams to embed design and innovation in every part of the organisation. According to the research conducted, design in the Western Cape is probably valued by industry more as a tool for styling (DEDAT, 2012, p.10). This implies that most organisations still persist to consider design in purpose and scope as a discipline responsible for the mainly aesthetic value of the final product.

This Platform 6 study contributes to the notion that the majority of design teachers still have to overcome a badly informed understanding of the nature, purpose and status of design as a subject as well as combat several negative stereotypes associated with the discipline. Most notable is the stereotype that design is a “soft subject” for those “creative learners that struggle with more challenging academic subjects” such as mathematics, science and biology.

The insights gained from the Platform 6 teacher discussion sessions and surveys support the research conducted for the development of the Western Cape Design Strategy. Learners seem to have very limited support in the process of exploring and pursuing design as a subject and career interest. When sound-boarding does take place, for example, with parents and or teachers in other subject areas, this advice suffers from a constricted understanding of the role and scope of design, tainted by ill-informed ideas and stereotypes around creativity and design as practice and future area of study. It is possible that the Design Maturity Ladder among stakeholders in Design as grade 10 to 12 subject is confined, as is the case with the majority of organisations in the Western Cape, to an understanding of design as a function merely of aesthetics for the creatively oriented non-academic learner.

Theme Three: Design teachers need skills and confidence to teach

The groundwork done through Platform 6 suggests that the current level of teaching and the knowledge required for teaching design in schools needs to be addressed. The insights gained from group discussions and surveys reveal that the vast majority of design teachers participating in Platform 6 do not have formal qualifications or experience in design teaching or practice. Buchner (2014) confirms that this is true for the majority of teachers in the 88 schools in the Western Cape who teach design in grades 10 to 12. The teachers mostly have Fine Art qualifications and years of experience in teaching Visual Arts. It must be noted that according to Norman and Klemmer (2014) who speak from the Asian, North American and European perspective, qualified teachers and lecturers in design thinking and practice is a universal scarcity primarily because theory, curriculum and qualifications unique to the requirements of design thinking and applied practical design are not long established. Cassim (2013, p.190) furthermore points out that the field is challenged in keeping abreast with the expanding and shifting definitions of the design profession. Teaching and training in the field thus depends heavily on self-acquired practitioner wisdom.

The exploratory research insights do, however, present a positive and constructive frame from which the teaching skill base in the thinking and practice of design can be developed. Teachers unanimously believe that they have the fundamental skillsets or, alternatively, the aptitude to educate learners in design. They claim this with passion and commitment for the subject and a desire to continue developing personal insight and expertise in teaching design. It is also noteworthy that many teachers in moments of reflection evinced a strong sense of responsibility to promote the purpose and value of the subject to learners, parents, fellow teachers and school leadership - "it starts with us, we are the educators".

Conclusion: Platforms for Innovation

Horst Rittel's concept of 'wicked problems' seems apposite here. The information is confusing, many stakeholders are involved and the ramifications are unclear (Buchanan, 1992, p.15). The problems surrounding the teaching of design thinking and practice in grades 10 to 12 seem to be largely rooted in and fed by misconception. The field and subject of design are misunderstood in role, scope and conditions and indicate much room for further studies. These conditions may be limited to NSC schools in the Western Cape, but most likely are not.

The development of a next generation of design thinkers and practitioners and the promotion of the purpose, scope and career pathways that design may offer current and future learners are critical goals. The aim must be to embed design as a vital economic tool for unlocking innovation and a driving force for competitiveness at state and provincial level.

This qualitative-exploratory study posits that innovation platforms such as The Western Cape Design Strategy (DEDAT) and Higher Education South Africa (HESA) - a government body tasked to conduct research on and recommend changes or additions to the current designated list of NSC subjects, should collectively investigate the potential for the subject of design to help prepare learners for the creative and critical thinking required for first-time degree studies. There are many stakeholders and complex consultation and decision-making landscapes ahead, but the increasing emergence of design thinking and practice in education, society and business suggests that design as a designated grade 10 to 12 subject should be considered. Roger Martin, dean of Toronto's Rotman School of Business, responsible for injecting design thinking into tertiary management education, argues that "today's business people don't need to understand designers better, they need to become designers" (Dunne & Martin, 2006, p.513). In the short term, an innovation platform such as The Western Cape Design Strategy (DEDAT) can, as proposed by design teachers in this study, identify and create clarity around public and private Higher Education institutions that recommend or recognise design as a suitable subject for higher degree study.

An official shift in the status of the subject of design, coupled with clarity around the admission requirements of public and private Higher Education institutions, will have a systemic impact on the challenges identified in this paper. Misconceptions regarding the purpose, scope and status of the subject will largely dissipate as the purpose of design becomes better understood and will also stimulate further interest in its scope and wide-ranging potential pathways for studies. The better the purpose, scope and status of design as subject is understood and promoted, the more it will become difficult for easy stereotyping to hamper the development of a culture of design thinking and education at secondary school level. Discouraging learners from exploring design as a subject choice will lessen. It is conceivable that a systemic shift will, as this paper suggests, inspire and support a new era of design learners within a South African culture of innovation.

Thankfully, there is a positive and constructive framework from which the teaching skills base in design thinking and practice can be developed. Teachers believe they have the fundamental skillsets or aptitudes required to educate learners in design; they possess the passion, commitment and desire to continue developing the expertise needed for teaching design and a strong sense of responsibility to promote the subject's purpose and value to learners, parents, fellow teachers and school leadership.

This framework has encouraged an ideas-oriented theme of 'visibility and collaboration' to emerge. Design teachers recognise that a higher level of self-responsibility among teachers of design is required to optimise and increase opportunities to showcase design events and projects at school level. Functional integration with existing school systems and projects may be able to support general exhibition of learners' work throughout the year. This involves creating awareness of the subject of design by developing, for example, design solutions specific to the school's systems, procedures and events. Teachers' reason that by creating more visibility around what design is able to achieve within the immediate school environment and community, the purpose and scope of the subject can be further exemplified and interest in its potential stimulated.

A closer working relationship is envisaged in collaboration with tertiary institutions that offer further studies in design, The Western Cape Department of Education (Design and Visual Arts) and innovation platforms or facilitators such as The Western Cape Design Strategy (DEDAT). Visibility, according to the design teachers involved in Platform 6, can accordingly be increased and learners, parents and school leadership and management may be further inspired by collaborative visits from tertiary institutions and the department, including showcasing prize-giving and bursary events for top performers. The possibility of a unique online showcase of grade 10 to 12 design work by top performers and competition winners, possibly hosted or supported by the Western Cape Department of Education (Design and Visual Arts), was also mentioned.

Contingencies for 2015 have already been implemented. Two activities for the year were identified. A social innovation project was launched in May by partnering with a secondary school in Cape Town. During a two-day intervention grade 11 and 12 pupils were guided towards identifying several social challenges and building prototypes by implementing design thinking principles towards practical solutions to benefit the direct school community. This initiative will also be showcased at the Platform 6 conference in partnership with the Open Design Festival later on in 2015. The conference will aim to provide a wider learning platform for design teachers in the principles and application of design education methodology.

This paper, based on insights gained from qualitative-exploratory research conducted through the official World Design Capital 2014 project, Platform 6, presents a polemic call to action. Complexities and intricacies still need to be uncovered and explored, but as an initial study promoting 'what could be', it hopes to contribute key insights and focus points for innovation platforms and policymakers towards building a more supportive and inspiring secondary school design culture and a next generation of able design thinkers and practitioners in South Africa.

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Seventh Annual IIE Celebration of Teaching and Learning

2015 Celebration of Teaching and Learning
Quality Teaching for Quality Learning

Submitted by:

Jackalyn Appalsami and Nicole du Toit

Introduction of the topic

The development assignment was developed by the Independent Institute of Education's (IIE) Central Academic Team (CAT) a few years ago (van den Hoek, 2015, pers. comm., 11 March). It emerged as a tool to provide first year students with a centralised and standardised opportunity for development in academic writing.

The development assignment creates an opportunity for first year students to develop academic writing skills using correct referencing techniques including in-text referencing. In this way, students acquire an understanding of what plagiarism is and how to avoid it. The latter will ensure academic honesty as students' explore a range of sources of information which will help them develop research, paraphrasing and referencing skills. Students practise assignment writing and submission in preparation for module assignments that are summative in nature; and experience a truly developmental learning opportunity to promote success in their academic writing (Anon. 2015, p.3).

The primary aim of the development assignment is to equip students to write good quality, formative assignments. Every assignment is therefore meticulously checked for plagiarism to ensure that students are academically honest by paraphrasing and referencing properly (Anon. 2015, p.3). Where students have been negligent in this regard, their errors are brought to their attention by the Academic development co-ordinator and they are given the opportunity to resubmit their assignments by utilising the IIE's plagiarism policy to ensure that they comply accordingly. Peter Kriel (Acting General Manager of the IIE) provided in-depth insight into the importance of abiding by the Academic Intellectual Property laws as well as plagiarism among lecturers and students. His message clearly reinforced the important role that the development assignment plays in developing students to become academically honest (Kriel, 2015, pers. comm., 26 February).

The University of New South Wales in Australia (2013) explains that it is expected academic practice for students to refer to (or cite) the sources of ideas, data and other evidence used in their written assignments. They believe that referencing allows students to recognise other writers contribution to their body of work, and where students have utilised ideas, words or research conducted by authors to refine their point of view, it is important and necessary to cite this, thus making their delivery academically valid.

For the reasons mentioned above, the development assignment plays an imperative role for the success of academic writing by students. Therefore, it is of utmost importance that the academic support team on each campus of every brand implement the development assignment strategically.

Motivation for the topic

The research problem

The implementation of the development assignment is a demanding project that takes a substantial amount of time, extensive use of human resources as well as financial burden to a campus. The effectiveness of its implementation has often been challenged due to its demanding nature and so this is to be investigated further. Therefore, this research aims to illustrate a comparative analysis on the implementation of the development assignment over the past two years. This comparative analysis compares how the development assignment has had an impact on the quality of academic writing on the formative assignment over the past two years. A comparative analysis provides an indication on how students have developed academic writing skills.

The research question

A key question to be considered is how effective the implementation of the development assignment is. A second important question to be deliberated is what impact the development assignment will have on the quality of formative assignment submissions with relevance to academic honesty. Finally a third consideration is what value students believe has been provided in the opportunity to complete the development assignment. These questions have been answered in the results provided below.

The y question to

The academic support team has intensively driven the development assignment among first year students over the past couple of years by implementing a strategic plan (Annexure 1). This plan focused on equipping students with the necessary skills during student support workshops, with the opportunity to then utilise those skills in the compilation of their development assignments. The assignments are then marked by a lecturer who provides detailed feedback to the students. During the feedback session, students are given an opportunity to reflect on the development assignment by completing a google form. The [google form](#) was created to record the results achieved in the development assignment as well as obtain feedback from students' experience of the development assignment. Thereafter, students were instructed to correct their errors on the development assignment by attending a workshop at the writing centre, with resubmissions taking place thereafter. These resubmissions were a vital part of the student's learning process as they learnt by correcting their errors. The lecturer evaluated the resubmitted development assignments to check if the students' had corrected their errors. Our 'novel thing' revealed how effective the development assignment strategy was regarding the quality of formative assignment submission as well as academic honesty.

Description of the topic

Background to the problem

Developing academic writing skills such as research skills, referencing and paraphrasing skills are necessary skills for any student. However, many first year students do not have these necessary skills when they start studying at a Higher Educational Institution which makes writing a good quality assignment daunting for the student. Even though it may be daunting for the student, the students have to comply with the Academic policy on each campus, which stipulates that students must reference and paraphrase when using other sources. Therefore, the IIE have designed the development assignment as a tool to equip first year students with these necessary skills. However, these academic skills can only be developed correctly if the development assignment is implemented strategically. The researcher provides evidence of how effective the strategic plan was implemented by the academic support team for the past two years. This research focuses on the impact the development assignment has on developing academic writing skills.

Research design

Jacobs (2014, p.196), describes action research as investigating problems and finding suitable solutions for them. Fox and Bayat (2011, p.11) furthermore describes action research as implementing a plan in order to provide a solution to the problem. The action research approach is a process whereby a plan is implemented to solve a problem and then the implementers reflect on the action of the plan. Upon reflection the plan is then improved in order to find a better solution (Jacobs, 2014, p.196). The academic support team has used an action research approach to investigate and find a suitable plan to implement the development assignment. This approach has been used over two years so that the strategies used year on year can be improved, upon reflection of each year. A strategic plan (Annexure 1) has been implemented and thereafter evaluated to determine how effective the plan is. This type of research design provides meaningful information to report on by evaluating the impact that the development assignment has on the quality of academic writing skills.

Collection and analysis of the data

The information has been collected by using three rubrics to mark the development assignment. These rubrics are the marking rubric (Annexure 2) and the referencing rubric (Annexure 3) which are both designed by the IIE and the 100 mark rubric (Annexure 4) which was designed by the academic support team. The marking rubric is used to evaluate the holistic development of each student's academic ability. The referencing rubric is used to evaluate the quality of referencing. The 100 mark rubric is used to evaluate the quality of content provided by each student. All the results obtained by these rubrics are then entered into a google form so that the academic support team can analyse the effectiveness of the plan.

A [google form](#) (Annexure 5) was created in order to compile the results achieved by students, receive feedback on the student's learning experience as well as inform the academic support team of what additional support was further needed after the development assignment. This form was used in 2014 and 2015. A comparative analysis has been conducted to determine the effectiveness of the implementation of the development assignment.

A database (Annexure 6) is kept of students that receive plagiarism offences. This database provides statistics to measure the quality of academic honesty in formative assignment submissions for these first year students which will therefore show the impact of the development assignment. This will be done by measuring the amount of plagiarism offences issued to first year students for their first formative assignment submissions over the past three years

A survey (Annexure 7) was conducted by lecturers who lecture on first year programmes. The survey intended to provide feedback on whether or not the development assignment had an impact on the quality of formative assignments regarding referencing, paraphrasing, formatting, quality of research and sentence structure. Ten lecturers participated in the survey. The information collected from the survey will be presented in the results below.

Explanation of the outcome/ impact/results

Impact of this study

This study will contribute to the field of academic writing within the brands of the IIE, as many brands are expected to run the development assignment on their campuses. Therefore, the brands of the IIE will gain insight into the impact the development assignment has in the following ways: Firstly, by evaluating how effective the development assignment is implemented on the Varsity College Port Elizabeth campus. Secondly, it will illustrate the impact that the development assignment has on the quality of academic writing for the first formative assignment. Thirdly, it provides feedback from students on how they felt the development assignment has developed their academic writing skills. Lastly, it provides information on additional support to students with academic writing skills by introducing the writing centre initiative.

The results

The effectiveness of how the development assignment is implemented

For the past two years the Academic support team have strategized to implement the development assignment in such a manner for it to be effective. The team have collected data from first year students by means of a google form. The responses of the google form have been compared and analysed from 2014 to 2015. 171 students completed the google form in 2014 while 210 students completed it 2015. The findings represented below illustrate how effective the development assignment has been as a result of the strategic implementation.

Figure 1: A comparative analysis on student attendance for referencing workshops. From 2014 to 2015, there was a 2% improvement in student attendance for the referencing workshops. The 2014 referencing workshop focused referencing skills only, while the 2015 workshop included paraphrasing skills as well. However, students that did not attend these workshops displayed a negative impact (Figure 2) on their formative assignment as they did not have the skills to reference properly.

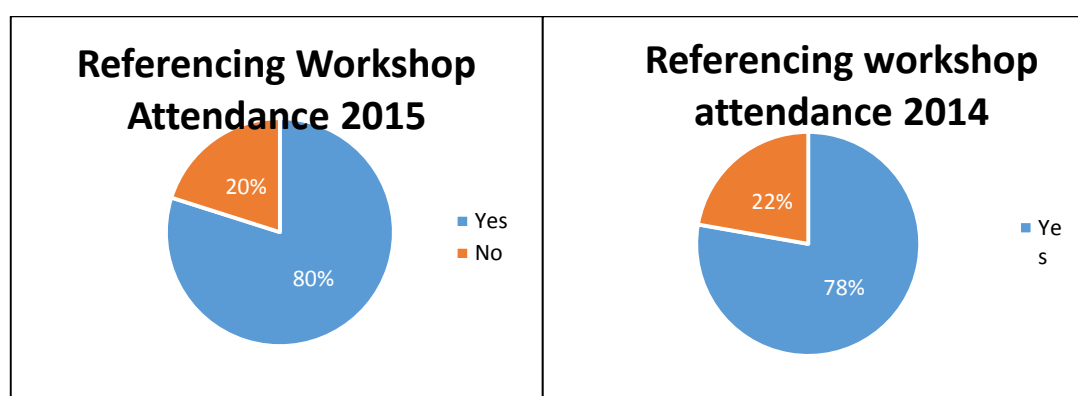


Figure 2: A comparative analysis of how students felt the support sessions prepared them for the development assignment.

From 2014 to 2015, the Academic support team altered the plan to implement the development assignment. The team decided to allocate more time in developing academic writing skills over 10 hours (Annexure 1). During the first eight hours, research, paraphrasing, summarizing, formatting and reference skills were taught. After each skill was taught, students had the opportunity to practice that particular skill by means of learning activities that were completed in the session. An additional two hours was spent on providing feedback on the development assignment as well as recapping on referencing and paraphrasing techniques. This plan improved student's ability to formulate the development assignment as they felt they were equipped with the necessary skills. This is evident in the graphs illustrated below.

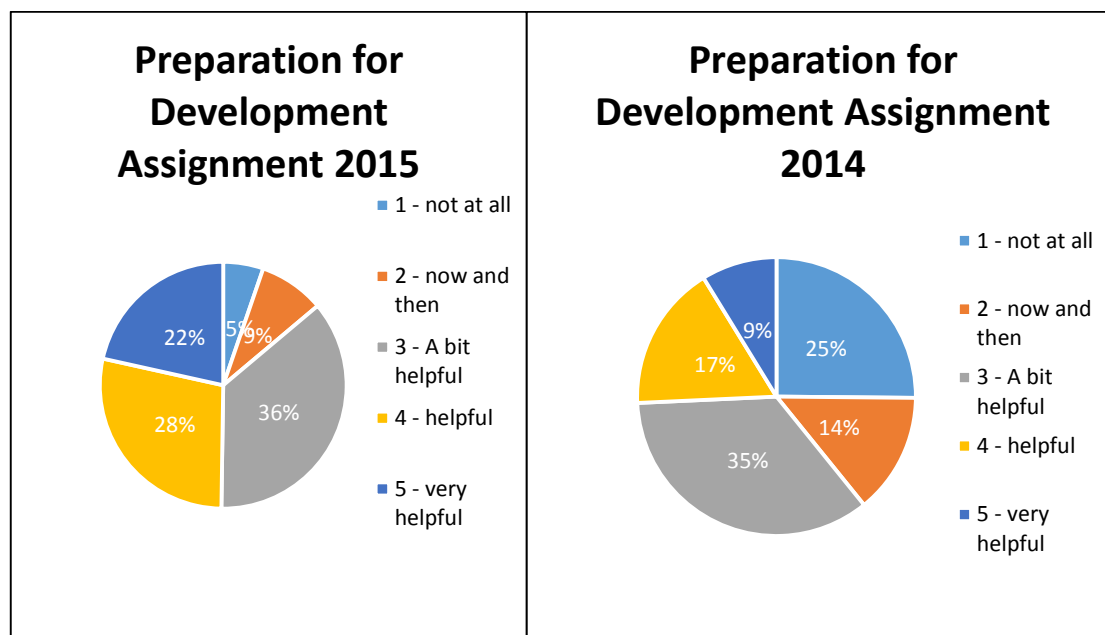
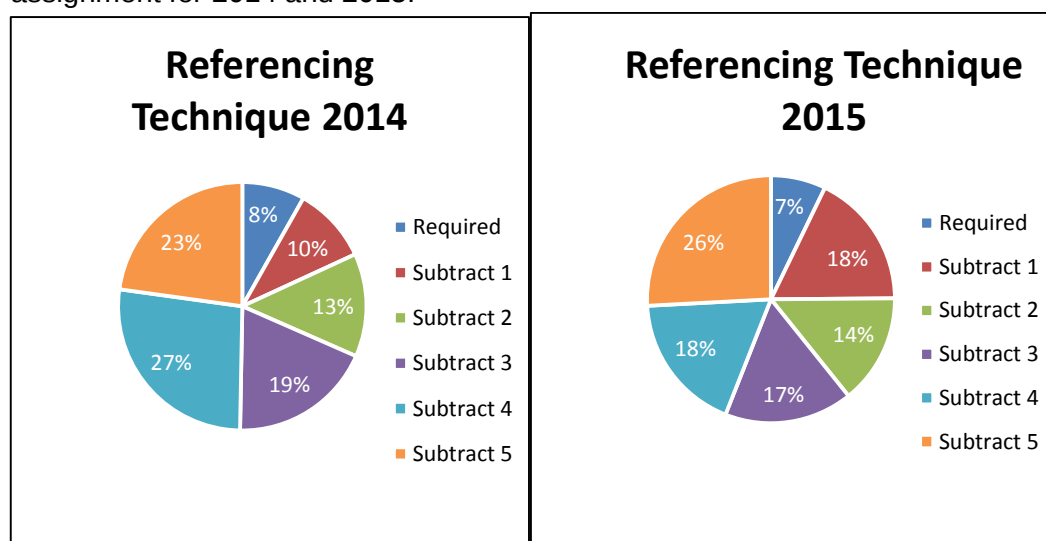


Figure 3: A comparative analysis of the quality of referencing techniques.

Lecturers used the referencing rubric (Annexure 3) to evaluate the quality of referencing in the development assignment. This rubric was designed by the IIE in 2014. From 2014 to 2015, there has been an improvement in the quality of referencing as fewer marks were subtracted for poor referencing attempts. This was due to more time allocated to developing referencing skills in 2015 as well as more students attending the referencing workshops in 2015 (Figure 2). The pie charts below illustrate the number of marks subtracted for poor referencing attempts in the development assignment for 2014 and 2015.



As lecturers marked the formative assignment, they observed an improvement in the quality of referencing. Nine of the 10 lecturers felt that the quality of referencing improved in the formative assignment submissions. Of the nine lecturers, three of them felt that students were aware of the necessity to reference and that there was still some inconsistency with referencing techniques. Another two lecturers felt, however, that even though there was an improvement in referencing, some more work needs to be done to develop this skill. While one lecturer, in particular, noticed that after providing feedback and getting students to resubmit the development assignment, students learnt from their mistakes on poor referencing. Another lecturer mentioned that even though the referencing improved, it seemed as if there were no referencing skills developed at school level.

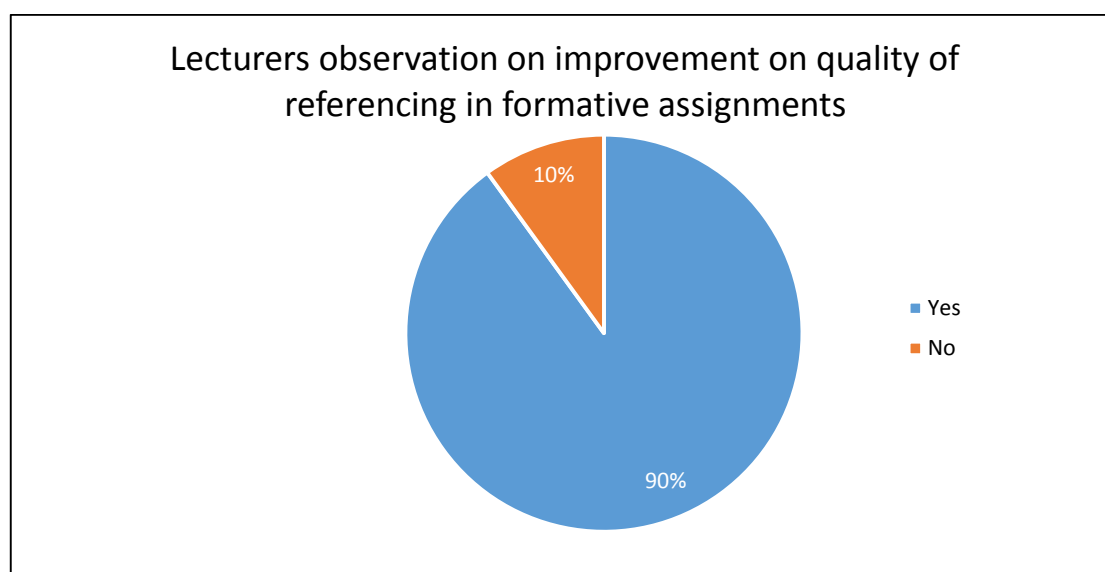
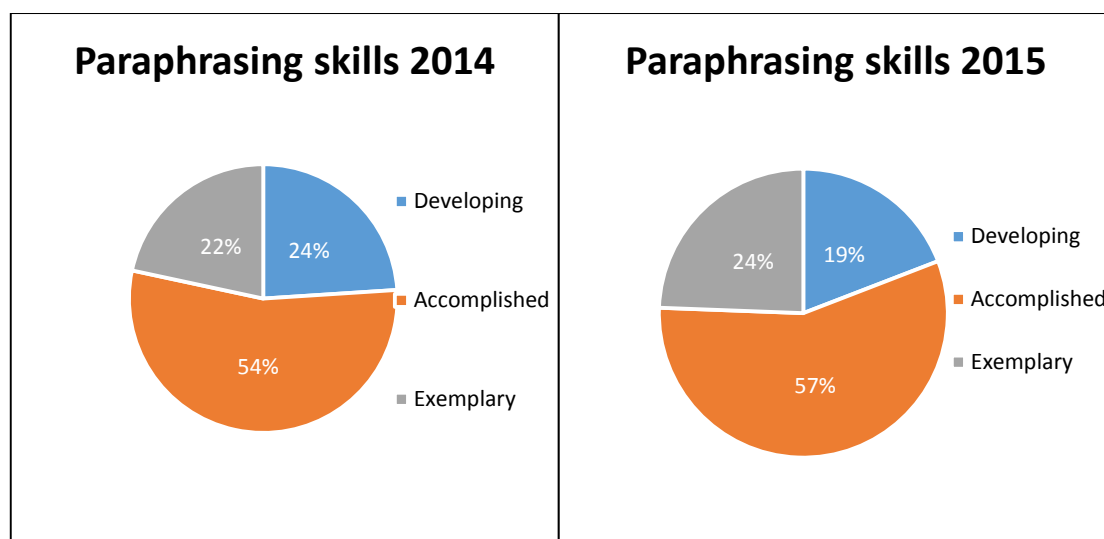
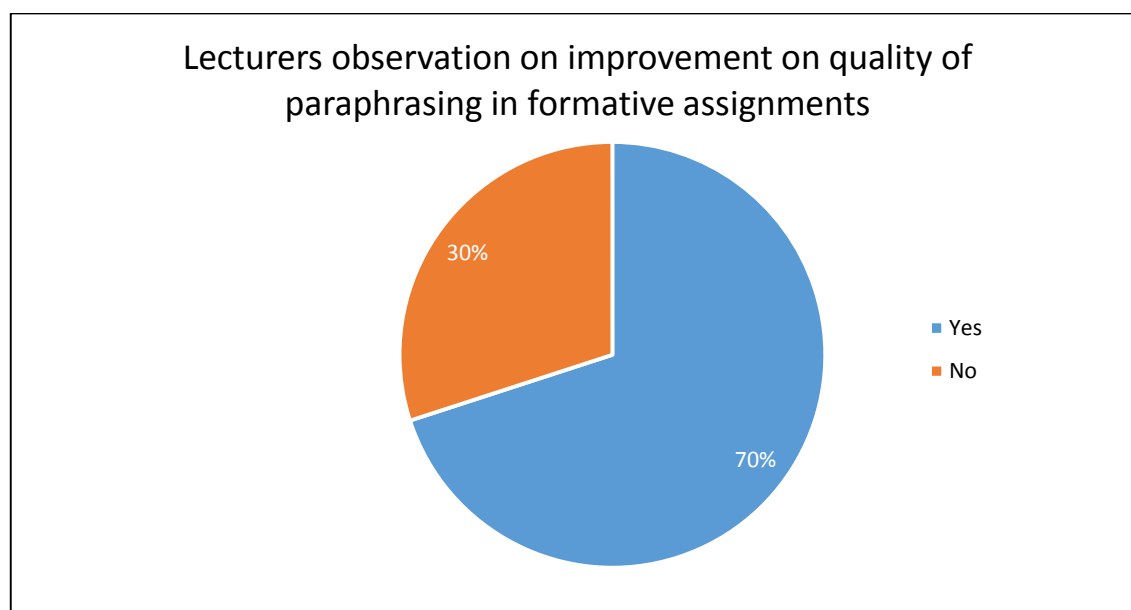


Figure 4: A comparative analysis on paraphrasing skills

The development assignment marking rubric (Annexure 2) was used to evaluate the quality of paraphrasing skills. This rubric was designed by the IIE to mark the development assignment. There has been a slight improvement in the level paraphrasing skills. This improvement is a result of the plan which was implemented in 2015. This is illustrated in the pie charts below.



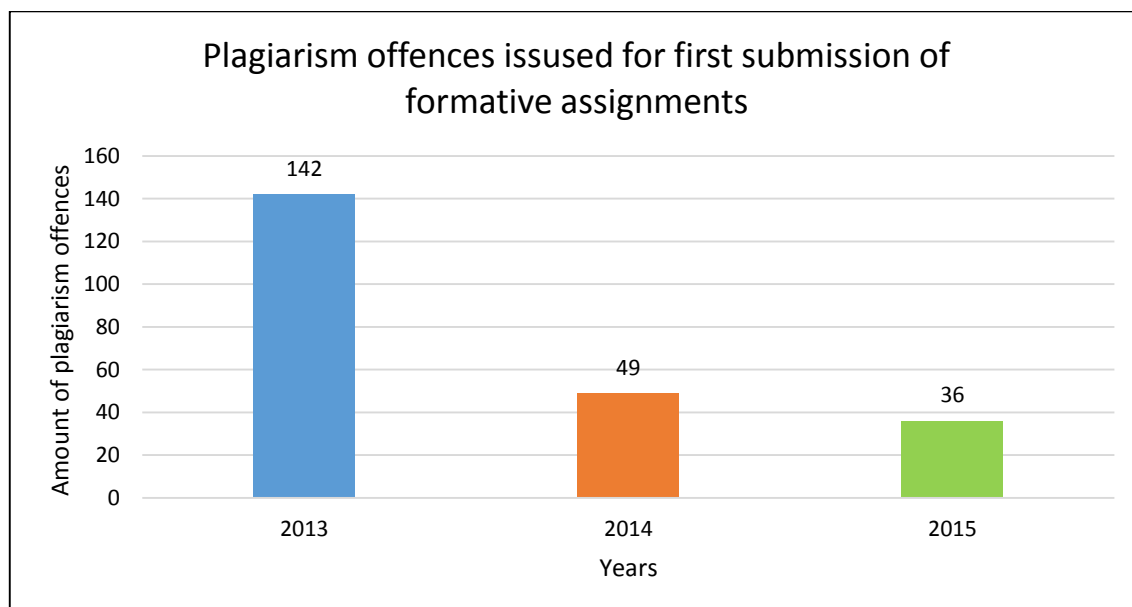
The feedback provided from lecturers that completed the survey observed that paraphrasing has improved in the formative assignment. One of the lecturers mentioned in the survey that “students understood the importance of using their own words and what plagiarism is, which supported better quality in terms of originality”. Seven out of 10 lecturers identified that the quality of referencing has improved while the rest of the lecturers felt that paraphrasing skills needed to be developed more. They said that students struggle to write sentences from their own understanding as English is their 2nd language.



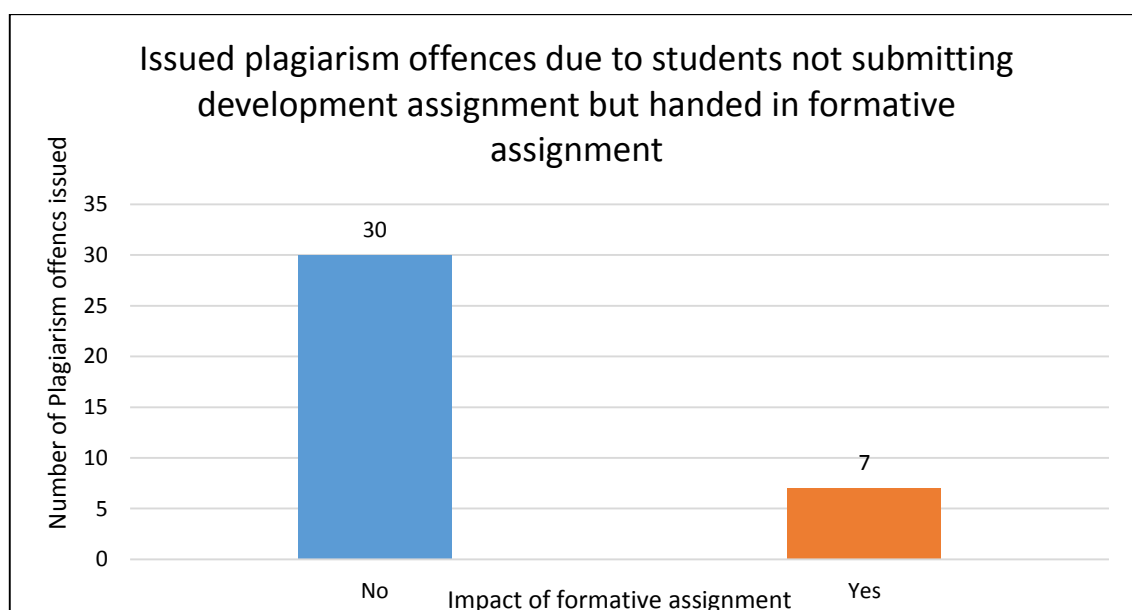
Plagiarism offences issued after first formative assignment

All the first formative assignments that were submitted were meticulously checked by the academic development coordinator and then issued plagiarism offences if the student was negligent in paraphrasing and referencing. The academic support team uses a database to record plagiarism offences (Annexure 6). There has been a significant decrease in the amount of plagiarism offences issued for the first formative assignments. The decrease in plagiarism offences are due to the strict implementation

of the development assignment as well as the support offered by the writing centre. The decrease in the amount of plagiarism offences indicates a measure of success that the development assignment has had. The fact that the amount of plagiarism offences reduced from year on year as the number of first year students increase year on year is also significant.



37 students did not submit the development assignment (Annexure 8) due to reasons such as they had problems with their flash stick, poor attendance of student support sessions, registered late or possibly dropped out due to financial reasons. Seven students out of the 37 students received a plagiarism offence; this is clearly due to the lack of academic writing skills that were not developed due to not handing in their development assignment.



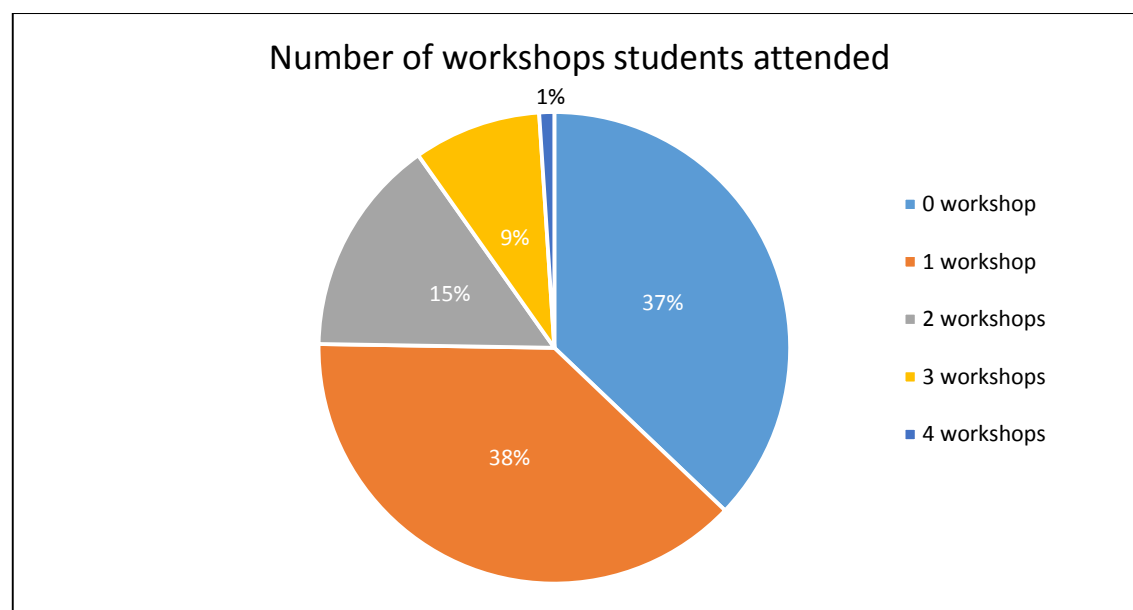
Student feedback on the development assignment

From the feedback received (Annexure 5) from first year students it is evident that they found the development assignment beneficial as it prepared them for their first formative assignment. Students generally felt that the development assignment equipped them with research, paraphrasing, formatting and referencing skills. Students had an opportunity to reflect on the development assignment and how they would use these skills in preparing for their formative assignments. Some students also mentioned that the development assignment prepared them for their studies as they had the opportunity to research what their qualification entails and career opportunities available in that particular field of study. Students also felt that they needed additional support with referencing and paraphrasing as they were unsure on how to reference and paraphrase. This additional support was provided to students by having writing centre workshops.

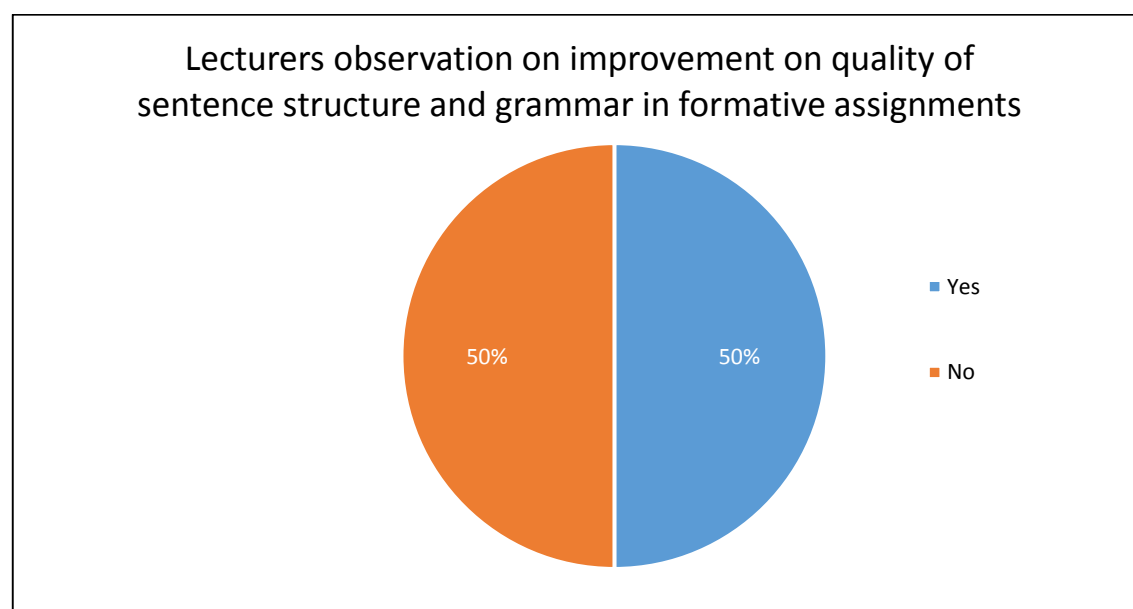
The Writing Centre

The writing centre is a new intervention initiative that started this year. The aim of the intervention is to provide students with assistance in writing a development and formative assignment. The writing centre workshops ran from the month of February until May. These workshops were delivered by two lecturers who are specialists in the field of arts in applied media and in English literature. These workshops were based on certain themes that were identified by the lecturers. Themes such as writing arguments, sentence structure, paraphrasing skills, writing an introduction and conclusion as well as referencing skills were addressed.

After the development assignment was marked, students who did poorly in referencing, paraphrasing and sentence structure were referred to the writing centre for assistance. 194 students out of 344 students were referred to the writing centre. Out of the 194 students, only 122 students utilised the writing centre throughout this period. Some students attended the writing centre once, while others attended the writing centre two or more times. The amount of times the students attended these workshops had an effect on the quality of the formative assignment. This was evident as lecturers marked the formative assignment they noticed an improvement on referencing, paraphrasing, sentence structure and grammar. The graph below indicates the amount of times that students attended the writing centre.



Lecturers observed a major difference in the quality of sentence construction and grammar as students that attended the writing centre did better than those that did not attend the writing centre achieved relatively low marks for the formative assignment. Five out of 10 lecturers felt that the quality of sentence construction and grammar has improved while five out of the 10 lecturers disagreed. The five lecturers that disagreed said that students' sentence construction and grammar is generally poor as English is their 2nd language.



Conclusions/ Recommendations

The development assignment is a tool that equips students with academic writing skills. This is evident by the outcomes that were achieved by the strategic implementation of the development assignment. The academic support team has worked intensively in trying to develop academic writing skills; however, this cannot be achieved by only implementing the development assignment at the beginning of the year. Developing academic skills is an ongoing process that therefore needs to be built throughout the year. As a recommendation, the academic support team encourages lecturers to incorporate these skills in the design of their lessons and learning activities.

With the writing centre initiative only having been operational for four months, there has been an improvement on the quality of formative assignments. Even though there have been some teething issues, such as lack of venues, logistical problems and financial issues, this initiative has been well supported by students. Students that have attended the writing centre workshops have improved on their academic skills. Even though support is provided in terms of academic writing skills, it is evident that language still seems to be a problem for English 2nd language speakers. As a recommendation, the academic support encourages other IIE brands campuses to start this initiative as it has the potential to be a sustainable initiative.

In conclusion, academic writing skills are essential if one desires to be successful in tertiary studies. It is up to us as the academic support team and lecturing team to strive to build these skills in our students as well as aim to assist them in becoming successful, independent individuals.

List of sources

Jacobs, L. 2014. "Action Research", in F. du Plooy-Cilliers, C. Davis & R. Bezuidenhout (eds.), Research matters, pp.194-203, Cape Town: Juta.

Anon. 2015. Development assignment 2015. The Independent Institute of Education: unpublished.

University of New South Wales Website. 2013. Sydney: Australia [Online]. Available at: <http://www.lc.unsw.edu.au/plagiarism/citation.html> [Accessed 16 March 2015].

Annexures

Annexure 1: Development assignment strategy

In 2014, the Academic support team implemented the development assignment by conducting the four support workshops. Upon reflection, the student support workshops were adjusted in 2015 to equip students with a specific skill at a time so that they could utilise that particular skill as an ongoing process in preparation for their development assignment.

Support Session 1

Support session one focused on explaining the teaching themes on campus, which are Inquiry based learning and Digital learning design. It is important for students to understand their role as a student as these themes are implemented on each Varsity College Campus. This session emphasised that students should take responsibility for their own learning. The development assignment is then introduced as the first step of their journey to academic success. Time is allocated in the session to get students connected to the Wi-Fi as this will assist with their studies. A technology quiz is done by each student so that the academic support team can identify if students are comfortable using technology in and outside the classroom.

2014	2015
Explain educational themes on campus	Explain educational themes on campus
Getting connected to the Wi-Fi	Getting connected to the Wi-Fi
Creating Gmail accounts	Creating Gmail accounts
Technology quiz	Technology quiz
Briefing on development assignment	Briefing on development assignment

Support Session 2

In 2014, Support session two focused on developing referencing skills, understanding how turn-it-in works as well as setting up turn-it-in accounts and vconnect email accounts. In 2015, this workshop focused on research and writing skills as students needed these skills to start with their assignment. Also setting up of vconnect accounts and turn-it-in accounts will move to a later session due to ensure that the flow of development assignment run smoothly.

2014	2015
Referencing	Research and writing skills
Setting vconnect email accounts	
Setting turn-it-in accounts.	

Support Session 3

In 2014, Support session three focused on developing skills for understanding in class, such as note-taking and summarising. Furthermore, developing research skills and how to revise and study for exams. Upon reflection, this workshop was too long and had many focus areas that confused the students. Also students did not see the relevance of exam techniques at the beginning of their academic year. Therefore, in 2015, there was a complete shift for this workshop. The shift was aimed at equipping students with the skill of referencing and paraphrasing as they have just completed finding their sources from researching.

2014	2015
Understanding in class	Referencing and paraphrasing skills
Note-taking and summarising	
Research skills	
Revision and studying for exams	

Support Session 4

Support Session four focused on providing feedback to students on their performance and short-comings of the development assignment. Thereafter, students had to reflect on the development assignment as well as correct their mistakes during the session. Students had to resubmit their assignments. A brief consolidation was conducted in order to bridge the gap with referencing and paraphrasing errors. In 2015, this session was aimed at formatting of assignments, setting up of vcconnect email and turns it in accounts. Furthermore, we explained how turn it in works.

2014	2015
Development assignment feedback	Formatting of assignments
Reflection on the development assignment	Setting up vcconnect email accounts and linking Gmail accounts
Referencing and Paraphrasing Consolidation	Setting up Turn-it-in

Support Session 5

An additional support workshop was needed from our evaluation of the 2014 strategy. This workshop provided feedback on the development assignment and created an opportunity to reinforce skill on referencing and paraphrasing.

2014	2015
	Development assignment feedback
	Reflect on development assignment
	Referencing and Paraphrasing Consolidation

Annexure 2: Marking rubric

Name and Surname: _____

Course: _____

DEVELOPMENT ASSIGNMENT MARKING RUBRIC

ASSESSMENT CRITERION	Exemplary	Accomplished	Developing
Relevance of content to field of study	- All content relevant to the field of study and presented in an interesting and informative way. - Clear understanding of the field of study.	- Generally relevant to the field of study. - Some lack of clarity of understanding of field of study.	Generally irrelevant information provided, which indicates a lack of clarity and understanding of the field of study.
Relevance of content to chosen career path	- Information clearly relates to the career that could be followed from this field of study. - Supporting details that point the way forward in the career path.	- Information broadly relates to the career that could be followed. - Few supporting details to indicate the career that would follow from this field of study.	- Information has little to do with how the field of study can lead to a career path. - Poor supporting details, if any.
ASSESSMENT CRITERION	Exemplary	Accomplished	Developing
Punctuation	- Quotation marks are used appropriately and correctly when quoting directly. - Other punctuation marks (brackets, commas, full	- Quotation marks are used to quote phrases/ sentences taken directly from the original text. - Other punctuation marks	- Quotation marks are not used to indicate phrases/ sentences taken directly from the text. - Other punctuation marks

	stops and colons) are applied correctly and consistently to in-text referencing.	(brackets, commas, full stops, colons) are occasionally used incorrectly/ inconsistently in the in-text referencing.	(brackets, commas, full stops, colons) are incorrectly used/ not used at all/ inconsistently used in the in-text referencing.
Sources indicated in text (Number of sources used)	- Information/ ideas/ graphics are supported with references to sources. - The sources of information are clearly stated. - At least three sources are used in text.	- The sources of information are not consistently cited. - The sources of information are not clearly stated. - At least three sources are used in text.	- Sources are cited for some of the information/ graphics given in the text. - Few/ no references are provided in text for information/ ideas/ graphics which are clearly not the writer's.
ASSESSMENT CRITERION	Exemplary	Accomplished	Developing
Relevant references in text (Credible and reliable information)	- Information/ concepts/ opinions/ graphics are supported with relevant references. - Primary sources are used rather than sources used by other authors.	- Some referencing is used to support the information/ concepts/ opinions/ graphics given in the text. - Sources cited are mainly sources used by other authors.	- All cited information comes from Web sites/ secondary sources. - Little/ no referencing is used to support the information/ concepts/ opinions/ graphics given in the text.
Citation style (Format of in-text referencing)	References are cited appropriately in the text.	The references cited are not	The references cited are not appropriate.

	- References are cited in the correct format in the text. - The reader can easily identify which information is linked to which source. - The reader is able to find the source in the reference list at the end of the assignment.	appropriate to the text. - There are minor errors in the citation format. - There is some link between the information and the source of the information. - The reader is able to find the source in the reference list at the end of the assignment.	- The citation format is incorrect. - The sources are poorly placed in the text. - The reader is not able to locate the source in the reference list at the end of the assignment.
ASSESSMENT CRITERION	Exemplary	Accomplished	Developing
Referencing information (Format of the reference list)	- The reference list contains complete information: - author's name/s; - publication date; - title; - source; and date; - Web page accessed. - The reader can easily find the references for own research. - The system of referencing is acceptable and consistent throughout.	- Information on the reference list is incomplete. - The reader can find most sources for own research. - There are minor errors in the consistency of an acceptable referencing system.	- References are generally not listed. - Information in the reference list is incorrect. - Important information is missing from the reference list. - The accepted system of referencing is not used or is used incorrectly.
Language style	The level of language used is consistent	Differences in the level of language can	The language level is inconsistent

	throughout the assignment. • The style of writing is consistent throughout the assignment. • The language and style are appropriate to the purpose of the assignment.	be detected in some parts of the assignment. • The style of writing varies in some parts of the assignment. • The language and style are generally appropriate to the purpose of the assignment.	with the language skills of the student. • The style of writing is inconsistent. • The language level and style of writing are not appropriate to the purpose of the assignment.
ASSESSMENT CRITERION	Exemplary	Accomplished	Developing
Paraphrasing skills	• Own words are used to restate the main ideas without changing the meaning or intention of the original message. • Sentences/ phrases are restructured to enhance original writing style.	• There is an attempt to use own words to restate the main ideas. Too close to the original. • Some attempt has been made to convert phrases/ sentences.	• Little or no attempt to use own words to restate the main ideas. • Sentences and phrases are very close/ identical to the original.
Summarising skills	• The main ideas of the original text are summarised without losing the meaning or intention of the original text. • The main ideas are summarised logically. • Appropriate linking words	• More than the main ideas are included in the summary. • There is a logical progression of main points. • Some linking words are used in an attempt to create a coherent	• Too many other points are included in the piece of writing for it to be considered a summary; or • The summary does not capture all the main points of the original. • There is little/ no logic in the

	are used to create a coherent piece of writing. The length of the summary is appropriate to the content being summarised.	piece of writing. The length of the summary is appropriate to the content being summarised.	development of the writing. - Little/ no attempt made to use linking words to create a coherent piece of writing. - The length of the summary is not appropriate.
ASSESSMENT CRITERION	Exemplary	Accomplished	Developing
Format and layout	- All aspects of the checklist were followed. - Font Arial, size 12, 1.5 line spacing was used. - Coversheet containing the following: - conservative style; - title of assignment; - name, surname of student; - student number; - course; - subject code; - date; - Name of my lecturer. - Content page: - Correct headings and sub-	- Some aspects of the checklist were followed. - The correct font and size were used however the line spacing was incorrect. - The coversheet had some relevant information; however, the incorrect style was used. - The content page had some headings and page numbers.	- Did not follow the checklist. - Incorrect font and size used. - The coversheet did not have all the relevant information. - The content page does not correspond with the heading and page numbers.

	headings were used; ○ Correct decimal numbering. ● Page numbers correspond with the page numbers in the assignment.		
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Annexure 3: Referencing rubric

Name and Surname: _____

Course: _____

REFERENCING RUBRIC

Providing evidence based on valid and referenced academic sources is a fundamental educational principle and the cornerstone of high quality academic work. Hence, The IIE considers it essential to develop the referencing skills of our students in our commitment to achieve high academic standards.

Poor referencing will result in a penalty of a maximum of five (5) marks against the percentage mark awarded to a student according to the following guidelines. **Please note that this will not hold for assignments in which referencing is not required.**

Required (1 – 2 mistakes)	Subtract 1 (Fewer than 5 mistakes)	Subtract 2 (More than 5 – 6 mistakes)	Subtract 3 (many mistakes, used Wikipedia and Google)	Subtract 4 (many mistakes, used Wikipedia and Google)	Subtract 5 (no referencing at all)
- Consistent, in-text referencing style - Quotation marks, page numbers, years, etc. applied correctly - Only one or two minor mistakes made - All sources academically sound and included in reference list - Accurate recording of references.	- Consistent in-text referencing style - Quotation marks, page numbers, years, etc. applied correctly Fewer than five minor mistakes made - More than 90% of the sources are academically sound and included in reference list - Mostly accurate recording of references.	- Consistent in-text referencing style - Quotation marks, page numbers, years, etc. not always applied correctly - Not all paraphrased content referenced - At least 80% of the sources are academically sound and included in reference list - Generally accurate recording of references.	- Consistent in-text referencing style - Quotation marks used for direct quotes but page numbers missing - Fewer than 50% of the sources are academically valid - Reference list incomplete - Inaccurate recording of references.	- Referencing style inconsistent - Paraphrased material not referenced in text - Quotation marks and/or page numbers for direct quotes missing - Fewer than 25% of the sources are academically valid - Reference list incomplete	- Exceptionally poor and inconsistent referencing - None of the sources academically valid.

Annexure 4: 100 Mark rubric

Name and Surname: _____

Course: _____

100 MARK RUBRIC

HEADING	CRITERIA	MARK	
Introduction	A brief explanation of your field of study		10
Career opportunities in this field	Name and describe what career opportunities available for graduates in this field. Provide motivation of one choice of career path	5	10
		5	
Purpose and Key functions	Name and discuss at least two purposes	10	20
	Name and discuss at least two functions	10	
Characteristics of employees in this field	Name and discuss at least three characteristics	5	15
		5	
		5	
Top companies in this field	Give a brief description of at least the top three companies in the field (local or international)	5	15
		5	
		5	
Current trends in the industry. Find a suitable graph that illustrates the current trends	Briefly describe at least two current trends in the field	5	20
		5	
	Relevant graph	5	
	Comment on what the graph means	5	
Conclusion	A brief conclusion of the overall assignment		10
TOTAL			100
PENALTY FOR REFERENCING (REFER TO REFERENCING RUBRIC)			SUBTRACT
FINAL MARK			100

Annexure 5: Google form

Students are given an opportunity in student support session 5 to reflect on their development assignment. This is done by completing the google form.



Development Assignment Reflection form 2015

Students reflect on the development assignment

Please click on the link to access the google form: <http://goo.gl/ObOM26>

In the excel documents are the responses from the google form which was completed by students in 2014 and 2015. Please click on the icons.

Responses for 2015



Development
Assignment Reflection

Responses for 2014



Development
Assignment Reflection

Annexure 6: The databases of plagiarism offences

The three excel documents below are used for tracking plagiarised offences for first years for 2013, 2014 and 2015. The amount of plagiarised offences will be used to measure the success of the development assignment.



Plagiarism tracking
first years 2013.xlsx



Plagiarism tracking
first years 2014.xlsx



Plagiarism tracking
first years 2015.xlsx

Annexure 7: Survey on evaluation on the quality of formative assignment

Dear Lecturer,

Please provide information on the quality of formative assignments done by first year students. This information is needed to measure how effective the implementation of the development assignment is.

Please answer the following questions.

Provide your name (optional): _____

Which first year programmes do you lecture on: _____

Do you think the quality of formative assignments improved after the implementation of the development assignment in 2015 in terms of the following aspects?

1. Referencing

Yes

No

Reason: _____

2. Paraphrasing

Yes

No

Reason: _____

3. Formatting

Yes

No

Reason: _____

4. Quality of research

Yes

No

Reason: _____

5. Sentence construction and grammar

Yes

No

Reason: _____

6. Please provide any additional comments.

--

Thank you for providing this information.

Kind regards,

Jackalyn Appalsami



Survey
responses.pdf

Annexure 8: Students who did not hand in a development assignment

The excel spreadsheet below provides information on the amount of students that did not submit their development assignments and what effect it had on their formative assignments. Some of these students received plagiarism offences due to handing in a poor quality formative assignment.



students who have
not submitted da.xls

JOHANNESBURG



Seventh Annual IIE Celebration of Teaching and Learning

2015 Celebration of Teaching and Learning

Love, language and leadership¹: unlocking inner potential in students

Submitted by: Antoinette (Anet) Sears

¹ 'Love, language and leadership' is from *Parelli Natural Horsemanship; The Parelli Program* which state these three guiding principles as the foundation to build a partnership with horses. (Parelli, 2015)

Introduction

Soon after encountering this decade's young minds at the DSSA, and noting the difficulties fellow lecturers experienced with underperforming students and high failure rates, it became clear to me that any traditional approach to teaching blocked both teaching and learning. Students did not seem to reach their innate potential, which, it might be argued, may be the result of a negative stance toward schooling accrued during prior experience in other educational institutions. It is concerning that students seem to resist new learning material, or the lecturer's instruction, which results in poor marks and erratic classroom attendance.

There are many teaching methods available for lecturers to teach students. But how does a lecturer 'teach' responsibility, willingness to participate, and how does a lecturer ultimately assist to access the academic potential that may, by now, be firmly locked away? How can a lecturer convince a student to remain focused, and to work efficiently? Perhaps something evades us as lecturers in our role towards these students. Students need to become willing participants in their own futures, as opposed to being 'carried' from one assignment to the next. How can a lecturer influence and assist students beyond teaching content, and beyond catering towards the learning habits of each individual student that we meet.

Motivation for the topic

I share my experience in this paper to create an environment conducive to learning and fostering growth in students, based on more than 10 years' experience training young horses, specialising in so-called 'problem horses'. When I became a lecturer at DSSA, I discovered that students are very similar to these horses. Since February 2013 I have endeavoured to 'train' students, basing my teaching methods upon my expertise in the training of horses. Although it may seem so, applying what is termed 'horse sense' to train and teach people is not a novelty. Chris Irwin (2005), Mark Rashid (2009, 2011), Linda Kohanov (2001), Monty Roberts (2002) and Pat Parelli (2003) are but a few practitioners, who refer to their methods as key to not only training horses, but to human teacher and learner relationships as well.

Description of the topic

The following are a few of the most important principles based upon methods I used to train young and problem horses. These principles were gleaned over time from the countless training methods of horsemanship experts, both well-known and obscure, and cannot be attributed to any one specific trainer – they are attributable to the collective knowledge of trained experts. I am a student of both well-known and lesser-known trainers, and combined and practiced techniques that have been useful to me, including those suited to my personality.

Each principle will be discussed with examples included of experiences inside the classroom. The principles are interconnected, and are not isolated methods of teaching, which requires mindfulness of the other. These principles may provide lecturers with additional skills to perceive, evoke and influence students in an innovative way, to bring harmony between student and lecturer, to foster the love of learning in students and, above all, to build their confidence to succeed at college, and in their lives.

1. Leadership;
2. Language of respect;
3. Building Trust;
4. Pressure and Release;
5. 'Reward every try';
6. Moving forward out of trouble;
7. Setting them up for success;
8. Language of love.

1. Leadership.

Gregarious nature of the herd

The classroom can be described as a space for a manner of experiences inside the classroom. The principles are interconnected, and are not isolated methods of teaching, which requires mindfulness of the other. Leaders are not selected from the head of hierarchy within the herd, but instead, students follow the leader who proves to be sympathetic to their needs. Lecturers need to be aware of student difficulties by getting to know each student individually, by engaging with each one separately, by spending time speaking to students, and assisting them to solve the problems they encounter. Students are able to acutely sense when they are undermined, or avoided, due to the leader's disapproval or judgment, which in turn, prevents students from 'following' the leader.

The lecturer certainly cannot be expected to solve problems outside the classroom, but – as the lead must be taken – the onus is upon the leader to delegate according to student's needs where, for example, they might arrange for a student to see a student-councillor, who can address and plan a time-management schedule, or bring relief to life circumstances the student cannot solve by themselves. A worthy leader is a helper and a guide, one who understands and empathises with a student's problems and needs.

The leader/ guide principle vs tyranny of the leader

Students will not listen to, respect or engage with a demanding dictator, who harbours expectations only a few may achieve. If students are falling short, it is incumbent on the lecturer/ leader to guide, to aid and assist and to avoid judgement. This process requires the lecturer to be both gentle and patient. Leaders are never to lose their temper, or raise their voice, no matter how justified, as this gives way to the instant loss of leadership, as students expect the lecturer/ leader to remain focused and in control on behalf of the herd. If this is lacking, students will take control. This takes many forms, which will be discussed below.

Testing lecturer/ leader for leadership

Testing the leader for leadership is an ongoing practice of their followers, and this proves to be no different among students. Students have the right to follow the best leader to take them to where they want to go, and testing the boundaries is one way in which they determine a leader's reliability and consistency. The qualities of a good leader are, in response, to exhibit patience, to know their subject, and to know how to solve problems encountered in class, able to answer questions that students understand and which make sense to them, repeating issues raised previously of work not understood, and the ability to 'read' the intent of the student without taking offence.

Students crossing boundaries

The boundaries of the leader's expectations are tested, and if weak boundaries are detected, students will take charge. Boundaries are areas students know they should not cross, and they do so to test the sincerity, strength, consistency and commitment the lecturer/leader holds for the individual student, and the class as a whole. Some examples of crossing boundaries in the case of a class of students might be: 'tuning out'; being late for class; absence from class; not completing homework or 'forgetting' work or materials; mobile phone activity; eating in class; leaving class while it is in session; resisting instruction (not listening); arguing in class with the lecturer or other students; finding fault with the lecturer; complaining about the institution; not participating in tasks; poor and mediocre assignments; making excuses; and poor test and exam results.

When a student knows in week one not to use their mobile phone in class, and brings it out again in week three, the subtext of this can be read as a test of the leader for leadership attributes. If the lecturer does not consistently remind the student (who has not forgotten, but behaves as if they have), weak leadership is inferred. Other minor boundaries will be tested, such as being late for class, making excuses, and eventually, resisting work altogether. If lesser boundaries are crossed and not reinstated by the lecturer/leader, these will always lead to the crossing of more significant boundaries.

According to the paradigm of the herd, the students are misperceived as lazy, when instead, what may in fact be transpiring is a process in which they may not receive consistent guidance from their leader.

Students leading/ training the lecturer

If the lecturer is not aware of the way in which students may be in the process of testing boundaries and testing out the lecturer's leadership, the situation may evolve into one in which the students lead the lecturer, where the lecturer may become 'trained' by students to give in to their demands. This process is very subtle and may happen very slowly over time, and tends to result in students becoming the pseudo-leaders, demanding what they believe to be their due. For example, students may be manipulative and complaining regarding requests from the lecturer, which may cause the lecturer to give way to their wishes. When this transpires, not only is learning and teaching compromised, but poor leadership is exposed.

'Problem' students

Students who are dominant and want control are students who, in the herd's terms, refuse to 'follow' the leader. They need confirmation of the leader's sincerity, a show of interest in their problems, and want their presence to be acknowledged. This type of student may feel insecure, and may want control over – rather than to be subjected to – what is done in class. This ought not necessarily to be read as a negative response, since they resist guidance and leadership as a way to feel safe in their knowledge base, or they want to be part of the decision-making processes, as well as in the teaching/learning process. They may therefore question the knowledge, reliability and leadership qualities of a lecturer by being rude, ignoring the lecturer, filing a complaint, or influencing other students to question the lecturer's capability. The perception is that they may be 'difficult' to teach, but in fact, it may be their way of expressing a legitimate desire to become part of the teaching process. This may be resolved, for example, in group work, where an 'unruly' student may be placed as the scribe or leader, which may be a good way to assist the student in question. Involving them in critiques, or giving them responsibilities to research further into their queries on behalf of the class, also creates a space for them to be augmenting their understanding of the knowledge they are acquiring through subordinated processes of teaching.

Other 'problem' students who show such behaviour may be those who do not want to be at college. These students need gentleness, not firmness. The tools that they may need to continue on their life's journey may indeed not be a college education, but the skill to be a kind, compassionate, non-judgemental human being that is aware of and proficient in healthy ways of relating to others. The lecturer/leader is in the position to change minds and hearts while they are guiding students in the classroom, and should take the opportunity to do so. Here, students learn from the example of the lecturer/leader's consistent patience and encouragement to equip them to make better choices in their lives ahead. One of these decisions may amount to finishing their studies, to hand in work on time, or to participate in class.

2. Language of respect

To access willingness, attention and interest, respect for students is essential. The leader needs to listen as carefully to the students as they need to listen to what we as lecturers have to impart. One of the most respectful gestures we can show someone, is to speak to them in their language. Students speak 'student' language, which an effective leader/lecturer is required to be aware of and understand.

The language of prey

During my years of being a school pupil, I understood disrespect to be behaviour where a person defies, disobeys and fails to respect authority, and even necessitates a form of fear in the face of those in power. This is the 'language' of prey-predator relationships, which has its roots in a situation that gives rise to the dual aspects fear and force. Students are vulnerable to the system of education, because they have to submit to a set of boundaries and rules, from due dates and formal lecture rooms, to dominant forms of knowledge and practice. I argue that old methods of teaching with fear and force need to be replaced with cooperation and willingness in order to transform the educational context to the benefit of the student. To continue with the metaphor of the hunt, cooperation and willingness is essential to the survival of prey animals. Students are equivalent to creatures of prey, in the sense that they take flight (are absent), resist (do not listen, do not hand in on time), need to feel safe (such as becoming absorbed in social media with friends), avoidant (not studying), and finally, leaving or 'escaping' (absence, late for class, being distracted in class).

The language of 'student'

When leadership does not include force or fear to achieve results, the lecturer needs to learn the language of student in order to earn respect. As has been elaborated, student 'language' or means of communication takes the form of testing reliability, sincerity, trustworthiness and consistency of the leader. This is reasonable when considering that students are asked to follow the lecturer. Without the usual force or fear that may have been encountered in previous educational systems or even in the home, the leader/guide needs to understand how to access students' *willing* participation.

Some examples might serve here. The signs of the language of the student being spoken may, for instance, be when the mobile phone reappears above the desk two weeks after a no-mobile-policy has been agreed upon; a quick lunch is enjoyed at the back of the class; or a quiet meeting is taking place between a few students while a lesson is being presented.

This behaviour is normally perceived as disrespectful, but in sub textual terms, the lecturer's leadership is in fact tested in such gestures. The consistency and sincerity, as well as the attitude of the lecturer, are tested. It is here, in this very valuable teaching moment, that respect can be re-established in order to invoke willing participation. Some important points to note in this regard are as follows:

1. Every single time one of the above situations presents itself, it *cannot* be overlooked, and the boundary must consistently be reinforced by asserting on behalf of the group that the behaviour in question is not what everyone has agreed upon.
2. Students must be allowed to test leadership and boundaries, because this is a valuable teaching moment to reinforce respect for healthy leadership.
3. In severe cases of boundary-crossing, such as when an individual student becomes hostile and confronting in the class, or blatantly refuses to adhere to a request from the lecturer; that student needs to be called out of the class, where a private consultation must be conducted. This type of consultation needs to be one in which a student is *reminded of their best self and their most valuable qualities*. The situation requires encouragement and belief in the student, with the *essential* goal in mind of increasing their capacity to perform well as part of the 'herd'.

Respect and trust are based upon *creating willingness* in the student, as much as on *authentic and consistent* leadership from the lecturer.

Consultation

One of the easiest ways to foster willingness in students is listening to students and share in their needs. One way to do this is to offer students choices. The transformative possibility of this is that, when including students in decision-making they are empowered; where choosing gives them a sense of self-worth and confidence, for example, the lecturer might present them with two ICE Tasks, one of which they are required to choose over the other. It makes sense including students in discussions and assisting them to interpret their perspectives better, so that they can develop a clear critical voice. Fill in the gaps of their education by telling stories that relate to the work they are assigned. All the while, it is necessary to respect their rights as human beings, who each have a unique understanding of the world through the contingencies to which they are subject. Often they can be our teachers, and provide great insight; particularly, it is worth mentioning, into socio-economic environments we may never encounter. This type of validation not only brings confidence, it also helps students to grow more mature in preparation for the world of work. Confirming who they are as individuals is as important as the academic validation that they may find in the form of good marks. We are, it must be underscored, not only teaching content, but guiding them on their path to their future – this also requires an intangible set of skills and knowledge, and any given student needs find the way to their best self. The leader of the herd, or the teacher/ lecturer, is tasked with guiding followers/ students to access the me within.

3. Setting students up for success

When students are not prepared and readied for a given task, they are set up for failure (Halfpenny, 2008; Rashid, 2009, 2011). Most students tend to be set up for failure in conventional teaching environments. In most situations, lecturers or the module content may not provide adequate preparation, or the expectation is too high for the level the students are at. In order to set a student up for success, a lecturer needs to know what causes students to fail.

'Leaving' the learning encounter

Poor or unjust leadership, new environments and new information are challenging to students to the degree that they may opt to 'leave' (Halfpenny, 2008). To 'leave' in this context must be regarded as a mode of disrespect, and can be expressed in various forms. Its deeper roots may be that a student has not been sufficiently prepared to tackle a task with the requisite confidence it may require or find the leadership to be weak or too overbearing. It is not necessarily a physical absence of the student, but also 'shutting down' or 'tuning out', and can even be as subtle as looking away which may be observed as losing interest or claiming not to understand, chatting in and disrupting class, or executing a task incorrectly.

A predatory response from the leader/lecturer would take the form of force or of instilling fear, which for students, translate as injustice and disrespect, even though this is, ironically, what they too are practicing. Replacing this response with a prey-prey relationship demands that a leader be predictable, so that students do not opt to leave. This takes the form of preparing students for a new environment, as well as new information, by continuously repeating the structures put into place.

Prepare students for a new environment

1. Once an environment decided upon is established, the leader is responsible for it to be kept in place consistently.
2. This environment ordinarily may be defined by, for example: no eating in class; no mobile phone activity (unless the go-ahead to use the internet for research is given); no late-comers allowed; requisite adherence to due deadlines and the need for books and materials to be brought to class timeously. This environment needs to be upheld by the leader without force or annoyance or complaint. It functions as 'repetition' which is a principle of 'setting students up for success'.

Prepare students for new information

1. New information is almost always challenging and must be offered in as many of the learning intelligences as possible.
2. New information must be imparted very clearly and repetitively.

Almost all lecturers endeavour to do this, so it is pertinent to ask the question as to why so many students still 'leave' the learning encounter. Noted above is the fact that coupled with preparation, is repetition. Students test the consistency of

the leader and demand repetition, for their security. Repetition and preparation serves the lecturer to enforce, where testing the lecturer is that which the student enforces towards a mutual obligation implied by the construct of the herd.

4. Building Trust

Lecturer predictability

Once leadership is established, and once students are willing to follow their leader/lecturer, trust accrues. Trust develops when the leader/lecturer regards each student as a precious individual, worthy of unconditional love. This makes students vulnerable, and sensitive to the lecturer. They will test the truth of the leader/lecturer's regard and love for them. It has happened that students have approached me, telling me they feel I am 'mean' or 'don't like them', especially after I have consistently been predictable and compassionate. What in fact is happening, is they are testing whether I am truly who I seem to be. Trust is established without one realising it is happening, so a lecturer is required to be alert to every student. Interest in and knowledge of each individual student is essential to continuously being able to gauge their life world ('lebenswelt'). It is hard to be predictable and consistent, and when one disconnects from being this way, it stands to reason that this offer students the opportunity to test one's sincerity. This is an opportunity for both lecturer and student to develop even more trust in their mutual interaction.

Faith and Forgiveness

What about those students who feel intimidated, who build a wall, and will not engage, especially when they withdraw, due to poor quality of work and frequent absences? To weave a thread of being forgiven is part of building trust. Being calm and patient and helpful, repeating what was said with patience, while being willing to give time to a student brings out a lightness and confidence in them. Having faith in students, and continuously reminding them that faith has been placed in them, gets through even the hardest of facades. It is very important not to allow students to spoil the relationship being built. A strong, consistent, trustworthy and predictable leader is highly regarded by anyone even when that leader makes mistakes. When one believes in a student, encouraging them through, for example, saying 'you will get there', shows faith in them. It may plant a seed of beginning faith in themselves and they may try harder.

5. 'Reward every try'

The language of respect, of listening to and watching students, will inform the leader/lecturer of the progress of students. Signs will emerge, such as incompetence in executing a task, in making mistakes, or in not understanding instructions. These are valuable teaching moments. Colorado-based horsetrainer Mark Rashid's expression "reward every try" (2003; 2009), translating as rewarding every effort, pertains here; where a student gets something small right, it has to be acknowledged and rewarded. This is known to work in most circles, the problem is that it is not done consistently. 'Rewarding every try' is a valuable 'training' tool in retaining leadership

and respect, and it builds trust and develops self-confidence in students. Moreover, it encourages students to 'follow' the lead of the lecturer toward the successful outcome of their goals. Rewarding an entire class for work well done or for raising their standard is equally valuable, as it shows respect from the leader/lecturer toward the class as a whole.

Consistency in this principle cannot be underestimated, as it is a fundamental confidence-builder. Without it, students may burn out, become overwhelmed or lose hope. It is necessary feedback for their progress.

6. Pressure and Release

Pressure in a teaching environment occurs during the explaining/expectation/correcting behaviour. When pressure is not released, students perform poorly, cannot keep up with the content of the work and/or 'leave'. There are forms of both aggressive and passive 'leaving'. As the old adage says, fear results in either 'flight or fight'. It is important to release the pressure exerted on a student, as a means to create trust in the process of learning, confidence and willingness, before the student takes on new and more difficult tasks. (Roberts, 2002; Parelli, 2003; Halfpenny, 2008; Irwin, 2005).

When a student is asked to perform a task, pressure is exerted in turn. At a critical point, when the student shows any signs of succeeding, pressure is released. The release of pressure can be ushered in by praise, and the overt release of expectation. It takes the form of halting further discussion or work executed for a few moments. Eye contact is taken off the student in such a situation, as pressure may be regarded as negative reinforcement, while the release is a moment of positive reinforcement. The release may take a few minutes, before proceeding. It ought to be emphasised that without the release of pressure, the student cannot learn (Halfpenny, 2008). This is because the release of pressure is a fundamentally valuable time for incubation, and allows the student to internalise their achievement and understanding, which is rewarded as successful by the lecturer. The value of release is a significant inroad for the lecturer to gain leadership, trust and respect (Rashid, 2009, 2011; Halfpenny, 2008). US-based horsetrainer Buck Brannaman (2004) and Australian Steve Halfpenny (2008) further assert that to reinforce this critical point further, the release must be accompanied by a significant break, in order for students to reflect deeply on the information they have been learning, avoiding any further repetition of information on the same day. For students, this may mean a 10 minute recess, which is actually 'incubation time', even if the student does not think about the work during the break.

Learnt helplessness

When pressure is constantly exerted and there is no release, students learn to become helpless, and to depend more and more on the support and input from the lecturer. Carrying students from one project to the next through constant assistance, corrections and checking, creates learnt helplessness. These

students are deprived of the opportunity to test their capacity for working independently, and without guidance. ICE Tasks are a very good form of testing independence, however, these need to be structured to 'set students up' for success. The aim of such tasks is for students to build trust and confidence in themselves, where it may mirror back to them that they have capacity to do well on their own.

Reverse pressure and release

I have experimented with the pressure and release phenomenon in the reverse, with surprising success. Early in the second year, a student was completely unable to draw the human form from life. No techniques worked for him. I announced to the class, that for their next attempt, I would give a chocolate to the student who could produce the worst possible drawing. Instead of putting on pressure, I thereby released pressure at the outset, giving the students the freedom to determine the parameters of the task for themselves. Often, in trying to 'get it right', insecurity steps in and they cannot, for fear of failure, access their inner gems, which are made up of their own unique capacity to perform. In attempting to please, they access techniques others may use successfully, but which may not work for them. Free association or 'nonsensical' work in terms of convention, done consciously, may assist students to discover in the process what may be unpredictable, in the form of their most valuable inner capabilities. This student received the chocolate, and could be observed to have felt extra-ordinarily special, rather than otherwise. As reinforcement, I made sure that in following drawing sessions, I praised him every time he lifted his own standard even to a small degree ('rewarding every try'). From that 'worst' drawing, his confidence in his work escalated, his trust in himself (and the leader) grew, and a character of drawn mark began to develop that he could use with great success.

7. Moving forward out of trouble

Pressure in a teaching environment occurs during the explaining/expectation/correcting behaviour. When pressure is not released, students perform poorly, cannot keep up with the content of the work and/or 'leave'. There are forms of both aggressive and passive 'leaving'. As the old adage says, fear results in either 'flight or fight'. It is important to release the pressure exerted on a student, as a means to create trust in the process of learning, confidence and willingness, before the student takes on new and more difficult tasks. (Roberts, 2002; Parelli, 2003; Halfpenny, 2008; Irwin, 2005).

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8. Language of love

Love, language and leadership in action

After our ten minute break, I returned to the classroom where at least six students were gathered around a laptop, watching a clip with loud music. I called upon them to disband and to sit down, but no one looked up. I clapped my hands to raise attention and was still completely ignored. At this point I knew that a delicate situation was unfolding, as the already seated students sat quietly observing me as I was asking for order.

Loosing my composure would compromise my leadership. Approaching the students and laptop would draw me into their pending claim on the leadership of the 'herd'. What was required was the necessity for me to 'speak student' in order to be respected as a leader, while also retaining trust and setting them up for success – to get to their seats willingly. The classroom was reverberating with loud music, so instead of using force or fear to control the situation, I took advantage of it. I began to move to the rhythm of the beat, doing an impromptu 'jabba' at the spot I was standing. One by one the students looked up in surprise, one uttering "Ma'm!" While they quickly disbanded and found their way to their seats, I was still doing the 'jabba', without music.

I was effectively 'speaking student' and thereby gained leadership and respect for tapping into what students regard as important to their lives. I also gained trust, not because I showed that I was one of them, but because I understood and showed respect and empathy for that which was of interest to students. 'Speaking student' at that critical moment, not only 'set them up for success', whereby everyone disbanded and seated themselves *willingly*, it showed that I appreciate and regard them as a valuable 'herd'.

Explanation of the outcome/ impact/ results

Love, language and leadership in action

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Conclusions/ Recommendations

All the above principles are only possible if the lecturer is aware that the student will 'follow' the lead of a trustworthy and caring lecturer and thereby, keep up with the pace of the class. The current generation of students we teach struggle to subscribe to leadership. In order to evoke, retain and foster willing participation and engagement in the work at hand from a student, a relationship of trust and authentic interest needs to be nurtured and inspired from the lecturer. The student has the right not to accept leadership from an untrustworthy source, because, as much as we as educators expect their participation, they as students expect likewise expertise and maturity from educators.

When horses are trained, they are 'asked' by the trainer to join the human world, where the horse is not so much choosing as conceding, according to a set of mutually reproducible terms. (Parelli, 2003). So too it is with students: the world of adult responsibility is foreign to them, and often not their choice when they have freshly matriculated, or are prematurely ushered into adulthood and tertiary education. We, as lecturers, are asking them to join a world that does not guarantee them success in their studies, nor are we offering them a job once they graduate. It is therefore the responsibility of the lecturer to create an atmosphere of trust and compassion, to reflect to students a new norm.

An environment needs to be created for willingness to participate, where students may encounter the opportunity to unlock their inner potential and to discover their mission and innate sense of self. Is this not perhaps the very core of education? The transformation of lesser things into greater things, in us and in students, may be the vital ingredient toward facilitating an ever advancing civilization. I believe it is possible regardless of a world that fails to serve the best interests of young people, who are at risk in their social environment due to various delinquencies of drugs and alcohol, a lack of physical boundaries, a potentially poor educational start, and often even deficient parenting.

A language of love, gentle leadership, trust and authentic interest needs to be nurtured and inspired by the lecturer. This, in the language of cooperation between one another, makes a worthy leader.

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Seventh Annual IIE Celebration of Teaching and Learning

2015 Celebration of Teaching and Learning

An investigation into the methods of measuring student engagement at tertiary level

Submitted by: Noxolo Mafu

Research concept paper: context

The research focus will be on the interactive activities that Further Education and Training institutions (FETs), recently named as Tertiary Vocational Education and Training (TVETs) apply as a means for effective student participation and engagement in classrooms. In addition, it will not be restricted to TVETs but further the investigation across select traditional tertiary institutions such as public universities in Gauteng. The envisaged comparison and analysis is regarded as a means of identifying potential best practices to be considered by TVETs in order for them to hone their graduates for admission into mainstream institutions successfully.

Why study student engagement through TVETs?

Student engagement has been a buzz word across the globe. Yet, there's no common definition of what it really is or what it is not. Due to consideration of education as a tool to individual's success and a contributing factor towards societal development and economic growth; techniques to improve students' performance at tertiary level are immeasurable. Yet, tertiary institutions grapple to obtain ideal graduates' scores and equally appealing quality education. Student engagement is a topic that has been researched extensively even in South Africa from various perspectives. However, investigating student engagement via TVETs' graduates who are rejected by mainstream tertiary institutions is not a frequently discussed topic by academia, even though students have endured such occurrence. This is the main focus of the proposed research.

According to the University of the Free State (UFS) it acquired a permission to adapt and contextualise the Community College Survey of Student Engagement (CCSSE) for application in South African tertiary institutions. UFS changed its Centre for Teaching and Learning (CTL) into a College Survey of Student Engagement (CSSE) which has been piloted nationally in 2011. There are five benchmarks that have been measured through survey, with consideration of South African context: 1. Active and Collaborative Learning, 2. South African Student Effort, 3. Academic Challenge, 4. Student-staff Interaction and 5. South African Support for Learners.

Through the CSSE's database, researchers and tertiary institutions can obtain relevant data that can be utilized to measure the institutional practices provides Further Education and Training (FET) colleges with data that can be used by the colleges to assess institutional practices and student behaviours that are strongly correlated with student learning and student retention, and that may be used for benchmarking, diagnostic or monitoring purposes. Used systematically in a cyclical manner the CSSE can provide up-to-date and relevant information that can be used by stakeholders at the sectoral and institutional levels to improve student outcomes in the FET sector.

Cognisant of the paucity of attention to student engagement within the context of quality education, this research seeks to shed much-needed light and a renewal of interest in student engagement across TVETs. The objective of this research is to gain comprehension of student engagement regarding TVET - mainstream tertiary institutions that have rejected graduates from TVETs and other non-traditional tertiary institutions. Informed by the emerging theoretical base, an alternative of best practices can be offered for consideration as part of the researcher's long-range scholarly agenda.

Research Questions

The research questions of the study are as follows:

1. What is the meaning of student engagement for different institutions in South Africa?

This research question seeks to guide the study towards exploring different definition of the concept and identify potential commonalities across the institutions.

2. Which student engagement measuring methods are used by the country's tertiary institutions?

Student engagement is broadly regarded as a means to obtain improved performance for students and also quality education. Methods to measure the extent to which institution's measure students' engagement is crucial. Therefore, this research question seeks to gather empirical evidence on the methods of measuring student engagement.

3. Do these determine quality of education qualifications obtained by their students and so set each institution apart from others?

This question seeks to investigate if methods of measuring student engagement position certain institutions unique from others and also determine if quality education is the main factor – how that is defined different from other institutions.

4. Which criterion is used by HEIs for admitting/ rejecting students from some tertiary institutions in the same programmes?

This question seeks to explore the extent to which the South African Higher Education Authority is adhered to, cognizant of the fact that training programmes are approved by the same body.

Rationale for inquiry

Some South African HEIs have set themselves as high quality tertiary institutions and, seemingly through this, refuse articulating or admitting graduates from various TVET. Given this, an inquisitive mind arises as to: what empirical evidence do HEIs have of their student engagement activities' impact on students' lives and delivery of educationally relevant experiences. The assumptions of the research are that, for HEIs to push such an agenda of rejecting TVETs' graduates, there should be an accurate and informed measurement. Thus, the nation needs to be aware of the existence of a psychometrically sound and substantively meaningful measure of student engagement activities. If there is such, many institutions, particularly TVETs, perhaps could consider in order to equip their students for articulation in HEIs of their preference. However, according to Gordon et al (2008) there appears to be little standardised assessment of student engagement existence; implying that there's little information about the measurement techniques.

Against this, there's an expanding pool of literature on the correlation of student engagement and positive educational outcomes (Pascarella & Terenzini 1991, Astin 1993). Moreover, it has been highlighted that, high graduation rates, improved grades, greater levels of educational satisfaction benefit from more deeply engaged students (Astin & Sax 1998, Astin, Vogelgesang, Ikeda & Yee 2000, Kuh, Kinzie Schuh, Whitt & Associates 2005).

If students are rejected on the basis of the institutional structure and student engagement activities of such institutions; obviously it is critical to measure student engagement. Perhaps, an exploration across mainstream HEIs will also shed light for other institutions to reckon the sound measurement that they confidently use to evaluate to which other students engaged as different from their own, as well as the extent to which new Higher Education policies could be considered in order to affect student engagement. Therefore, in an attempt to address the concerns of TVETs' students (particularly those rejected by HEIs), better understand the correlation between student engagement and institutional structure, as well as offer institutions with relevant information needed to reflect effectiveness, there's a need to first analyse the existing techniques.

Methodology

The research will use Gauteng TVETs and mainstream universities. The mainstream universities in this study will be public universities (Higher Education Institutions) that apply the College Survey of Student Engagement (CSSE); such as University of Johannesburg, Witwatersrand University, University of Pretoria, University of South Africa and Vaal Technology University. These institutions are considered because of proximity to the researcher to lives in Johannesburg for access across them. The TVETs will be selected randomly across the province and will also comprise of some small-and- midsized institutions.

The researcher hopes to work with CSSE to administer the survey. The proposed methodology will be a qualitative approach, using surveys to gather data from primary sources. The TVETs' and HEIs' curriculum developers, HODs and lecturers will be interviewed in order to gather data on student engagement activities and methods of measuring them. Additionally, students from TVETs will also be interviewed to gather their perceptions about their own institutions' student engagement activities against their contemplation to join HEIs. In consideration of non-response and minimising some generalisability concerns (Kuh, Hayek, Carini, Ouimet, Gonyea and Kennedy 2001; McInnis 2006), the research is cautious when generalising the results of its findings across all students

The key themes arising from the literature on student engagement, quality education and articulation, as well as from staff of select tertiary institutions, including selective items from CSSE will inform the process of data analysis. The study hopes to identify five student engagement areas for scale of development, which could be:

1. Active and Collaborative Learning,
2. South African Student Effort,
3. Academic Challenge,
4. Student-staff Interaction and
5. South African Support for Learners.

These content areas are chosen based on the researcher's interest in methods of measuring these activities as a way to deduce institutional effectiveness. In addition, they were also selected with particular reference towards understanding the criteria of student engagement measuring methods applied by mainstream tertiary institutions for admitting TVETs' graduates. Moreover, they were selected on the basis of considering a need for establishing a standardized and empirical established measurement of these activities in the tertiary academic field. The study will also consider other CSSE's relevant items to the focus of this study to help lend it validity.

The analytical plan is not yet decided; the researcher is currently studying the Item Response Theory (IRT) (Mplus 5.1, Muthen & Muthen 2007) and Multilog (Thissen, 2002) with consideration of using it to determine if the items identified as part of student engagement measure their intended constructs and to also help offer the psychometric information needed to evaluate the veracity of similar studies that have used some of these items, and also the psychometric information that tertiary institutions need for programme evaluation. Additionally, the research is revisiting the Nominal Response Model (Bock 1972) in order to empirically examine any order that existed previously for the categories associated with selected items linked student engagement that could not be reflected in the category's numbers.

Limitations of the study

The study may be restricted to Gauteng because of the researcher's geographic proximity to several tertiary institutions and access to them. The study acknowledges that as it will take place across mid-sized and small-sized tertiary institutions in Gauteng, it is unclear whether these items sets would have similar student engagement activities and measuring methods. However, it will rely on CSSE's popular methodology in an attempt to minimize concerns linked to sample and generalizability.

According to Hambleton & Swaminathan 1985) the contemplated IRP parameter estimates are not sample dependent and this implies that findings should generalise to only other similar tertiary institutions (Carle, Jaffee, Vaughan & Eder; ...) and not all across the country. Moreover, there could be variety across institutions as to how these items are regarded. If that could be the case, it is suggested that consideration of CSSE items is necessary in order to assure that institutions have captured engagement opportunities available for students.

Conclusion

The study is about exploring existing student engagement activities across tertiary institutions. More importantly, it seeks to provide institutions with empirical information they need to evaluate the state of their students' engagement using CSSE as a nationally administered, standardised scale. Perhaps, with existence of clearly defined student engagement measuring methods, more graduates of TVETs who wish to penetrate the mainstream institutions would be honed to fulfil their academic dreams.

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Seventh Annual IIE Celebration of Teaching and Learning

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The Psychology of Education: Don't smile before Christmas...

Submitted by: Patrizia Scalone

Introduction

There is a saying in teaching 'Don't smile before Christmas' meaning don't show your nice side until you have shown your students who's boss.

The work of Carl Rogers has emphasised precisely the opposite of this view. Rogers believed that lecturers should create emotionally warm, supportive environments where they work collaboratively with their students in order to achieve mutual goals. This type of environment will encourage students to 'love' learning (Anon, 2008).

Rogers distinguished two types of learning: cognitive (meaningless) and experiential (significant). Cognitive learning refers to academic knowledge such as learning the steps on a process and experiential learning refers to applied knowledge such as learning about architecture in order to design a house.

Experiential learning addresses the needs and wants of the student, and is associated with personal change and growth. Rogers believed that all human beings have a natural propensity to learn and the role of the lecturer is to facilitate such learning (Culatta, 2013).

According to Rogers, the following conditions need to be met in order for learning to occur: (1) the student should participate completely in the learning process and have control over the nature and direction of the lesson; (2) learning is based on direct confrontation with practical, social, personal or research problems; and (3) the principal method of assessing progress and success is through self-evaluation (Culatta, 2013).

Various theoretical perspectives have been applied in an attempt to qualify the views and approaches used in classrooms today. While all the approaches hold value in their application, an approach that has a psychological leaning may add value to the learning and teaching environment, as it allows for not only the theoretical contribution to the field, but also an opportunity to understand the psychology behind the student as well as the lecturer, and how this can be incorporated to create an educationally and psychologically sound learning environment.

The theoretical perspective of Carl Rogers

Carl Rogers was one of the most prominent American psychologists of his generation. He had a view of human nature which led him to create a unique psychotherapy as well as develop an exceptional view of education.

Rogers was widely admired and was named one of the most influential psychologists of his time. However, his therapeutic method generated much controversy. His method was reflected in his view of human nature, the idea that an individual has the ability to actualise the self, which if given the opportunity, would result in the ability of the person to solve their own problems. The therapist was not seen to be an expert who understood the problem and how it could be solved; instead, the therapist should free the client's power to solve their own personal problems. This therapeutic perspective was controversial because it was contrary to the usual professional assumption that the client needs an expert to solve their problems (Zimring, 1994).

The same view that Rogers held about human nature and therapy was applied to his writings about education. Rogers believed that the student had interests and enthusiasms, and the responsibility of the lecturer was to aid those interests and enthusiasms.

Rogers expressed his views in the publication *Freedom to Learn*, where he focused on the person and attitudes of the lecturer rather than on the methods or techniques of instruction.

Rogers expressed this focus in his statement of the aim of education as the facilitation of learning:

We know that the facilitation of such learning rests not upon the teaching skills of the leader, not upon his curricular planning, not upon his use of audio-visual aids, not upon the programmed learning he utilises, not upon his lectures and presentations, not upon an abundance of books, though each of these might at one time or another be utilised as an important resource. No, the facilitation of significant learning rests upon certain attitudinal qualities which exist in the personal relationship between the facilitator and the learners (Rogers in Patterson, 1977).

Rogers' work focused on the general psychological conditions applied to all learning. These conditions applied to affective development as well as cognitive development. However, there are additional aspects of affective development or affective education. By providing conditions such as *empathic understanding*, *acceptance*, *prizing or respect* and *realness or genuineness*, the lecturer is creating a climate for affective learning, or changes in the personality, values and attitudes of the student. This is achieved through the process of modelling – students learn more from what the lecturer does than what the lecturer says (Patterson, 1977).

There have been many attempts to develop specific methods or curricula in affective education, however, these approaches have been subjected to various criticisms. One of these criticisms is that students are often forced into a standard curriculum format that consists of lesson plans and lecturer manuals. They therefore become subject-matter-oriented rather than person-oriented. Another difficulty relates to the structuring of affective experiences and may neglect attitudes in favour of techniques. The emphasis on structured, lecturer controlled techniques with predetermined, specific objectives is inconsistent with the goals of affective education which include elements such as spontaneity, student initiated activity, open, free discussion and interaction in a natural setting and self-directed exploration and learning (Patterson, 1977).

Another approach to affective education is the experiential approach. Experiential learning involves human or interpersonal relations. Rogers believes the basic encounter-group approach to be the most important and effective approach to educating students in interpersonal relations (Patterson, 1977).

Actual experience in groups seems to be superior to any other method of learning and students can learn through experience to: listen to others; accept and respect others; identify and express their feelings; become aware of the feelings of others; develop a greater awareness of themselves and help others accept themselves, amongst others (Patterson, 1977).

The lecturer, while an expert, is a facilitator, teaching through modelling rather than didactically through providing content or subject matter.

Research support for the effectiveness of the above three conditions in classroom teaching is accumulating.

An early study by Emmerling (1961 in Patterson, 1977) indicates that lecturers who differ in their orientation towards teaching and students, are perceived differently by students. One group of lecturers saw the problems of teaching as helping students think for themselves and be independent, getting students to participate, learning new ways of helping students develop their maximum potential, and helping students express individual needs and interests. A second group, however, saw the urgent problems as trying to teach students who do not have the ability to follow directions, teaching students who lack a desire to learn or who are not able to do the work required for their grade and getting students to listen. Students saw lecturers in the first groups as more real, more accepting and more empathic than they saw lecturers in the second group.

Education of the future is described by Rogers as follows:

Education will not be a *preparation* for living. It will be, in itself, an experience in living. Feelings of inadequacy, hatred, a desire for power, feelings of love and awe and respect, feelings of fear, dread, unhappiness with parents or with other students – all these will be an open part of [the student's] curriculum, as worthy of exploration as history or mathematics. In fact, this openness to feelings will enable him to learn content materials more readily. His will be an education in becoming a whole being, and the learning will involve him deeply, openly, exploringly, in an awareness of his relationships to the world of others, as well as an awareness of the world of abstract knowledge (Rogers 1968 in Patterson, 1977).

Rogers' central conditions for learning

Rogers believed that significant learning can only occur to the degree that the student is working on problems that are real to them; that significant learning can only be facilitated to the degree that the lecturer is genuine and congruent (Zimring, 1994).

The facilitation of significant learning rests upon certain attitudinal qualities that exist in the personal relationship between the lecturer and the student.

The first of these attitudinal qualities that facilitates learning is 'realness' in the facilitator of learning. Rogers believes that when the lecturer enters the relationship with the students without presenting a front or façade, they are much more likely to be effective. The lecturer is seen as a person to their students, not some faceless embodiment of a curricular requirement.

The second group of attitudes has qualities of prizing, acceptance and trust. This refers to an acceptance of another individual as having worth in their own right. It is a basic trust, a belief that the other person is fundamentally trustworthy. There is a prizing of the student as an imperfect human being with many feelings and potentials (Zimring, 1994).

An illustration of the element of trust is evidenced in the following example where the lecturer trusts the students to assess their own work:

"Give yourself the grade you think is fair, but I...must [also] sign the grade sheet, giving it my approval, so I believe the grade must be mutually acceptable. If I find a discrepancy between my subjective evaluation of your work and your subjective evaluation, we will discuss it together and try to agree on a reasonable grade" (Anon, 2008).

In practice, it was found that the lecturer insisted on giving a higher grade far more often than he argued about a grade that he felt to be undeservedly high.

The third attitudinal quality observed by Rogers is the element of empathic understanding. When the lecturer has the ability to understand the students' reaction from the inside, has a sensitive awareness of the way the process of education and learning seems to the student, again the likelihood of significant learning is increased (Zimring, 1994).

Although Rogers encourages these attitudes, he is understanding of the fact that these attitudes may be difficult to achieve. He highlights the achievement of realness as the most difficult to achieve, even when one wishes to be truly genuine. We can only learn to be real over time and an awareness of one's feelings will facilitate the ability to express the attitude.

Rogers' principles for learning

Rogers abstracted a number of principles about learning. These principles are:

1. Human beings have a natural potential for learning.
2. Significant learning takes place when the subject matter is perceived by the student as having relevance for their own purposes, when the individual has a goal they wish to achieve, and see the material presented to them as relevant to the goal, learning takes place rapidly.
3. Learning that involves a change in self organisation (the perception of oneself) is threatening and tends to be resisted.
4. The learnings that are threatening to the self are more easily perceived and assimilated when external threats are at a minimum.
5. When the threat to the self is low, experience is perceived in a differentiated way and learning can proceed.
6. Most significant learning is acquired through doing.
7. Learning is facilitated when the student participates in the learning process.
8. Self-initiated learning that involves the whole person of the student is the most lasting.
9. Independence, creativity and self-reliance are all facilitated when self-criticism and self-evaluation are basic, and evaluation by others is of secondary importance.
10. The most socially useful learning in the modern world is the learning of the process of learning, a continuing openness to experience and to incorporate the process of change into oneself (Rogers, 1969 in Zimring, 1994).

Rogers also developed various ideas about the methods of facilitating learning:

1. It is important for the lecturer to set the initial mood or climate of the group or class experience.
2. The lecturer helps to elicit and clarify the purposes of the students in the class as well as the more general purposes of the group.
3. The lecturer relies on the desire of each student to implement the purposes that have meaning for the student as the motivational force behind significant learning.
4. The lecturer strives to organise and make the widest possible range of resources easily available for learning.
5. The lecturer regards themselves as a flexible resource that can be used by the group.
6. The lecturer accepts the intellectual and emotional attitudes of the group and endeavours to give each aspect the approximate degree of emphasis that it has for the individual or group.
7. As an accepting classroom climate is established, the lecturer is able to become a participant learner, a member of the group expressing their views as those of one individual only.
8. The lecturer takes the initiative to share themselves with the group, their feelings as well as thoughts in ways that neither demand nor impose, but simply represent a personal sharing that students can either take or leave.
9. Throughout the classroom experience, the lecturer remains alert to the expressions that indicate deep or strong feelings.
10. In their functioning as a facilitator of learning, the lecturer strives to recognise and accept their own limitations (Rogers, 1969 in Zimring, 1994).

Rogers believes that these feelings should be understood and empathetic understanding should be communicated.

The goal of education

According to Rogers, the goal of education must be the facilitation of change and learning. This goal includes, but goes beyond, cognitive or intellectual education, and includes the education of the person as a whole. It involves personal growth and the development of creativity and self-directed learning (Patterson, 1977).

Two kinds of learning identified by Rogers

Rogers believes learning to fall along a continuum of meaning. The one end is made up of meaningless learning - rote learning, comprised of learning or memorising of nonsense syllables. This type of learning is difficult and does not last. This is the type of learning expected in the schooling environment. The material covered has no personal meaning for the student and does not involve feelings or the whole person. It is considered learning from the 'neck up'.

The other end of the continuum consists of learning that takes place in everyday life – experiential learning. This learning is quick and retained and represents personal involvement by the student. This learning is evaluated by the student in terms of their personal needs, as a result, the locus of evaluation is internal. This learning combines cognitive elements with the affective elements involved in personal meaning. It recognises that meaningful learning involves the total person.

Traditionally education comprised of the meaningless, rote learning, although, many teachers and educators have begun to recognise the value of experiential learning. Furthermore, the implementation of this approach would signal a revolution in the field of education (Patterson, 1977).

Application of the principles of Rogers' meaning

The person centred approach to learning is a person-to-person relationship developed between the lecturer and the student.

The requirement for the development of this relationship is the acknowledgement of both the lecturer and the learner.

Research conducted at the Medical College of Ohio (Chickodonz et al, 1986 in Zimring, 1994) where the Rogerian principles were implemented produced two recurring issues. The first had to do with the faculty sharing power and responsibility. In some cases the faculty did not respect their own limits and granted students freedoms with which the faculty was not comfortable. For example, several faculty members allowed students to negotiate out of activities that were considered essential to students' learning. At times, the faculty felt hurt when students did not recognise or value what the faculty had to offer.

The second issue was centred around the evaluation of the students and grading them for their course. As part of an academic institution, the faculty was expected to evaluate the students; however, the usual type of evaluation by the faculty was not seen by the students as sharing the power and responsibility for their learning. Gradually, strategies were developed by the faculty that allowed the students to share in the decisions on the evaluation process. One such strategy was to be very clear about the criteria for evaluation before the papers were assigned and written. Another was to comment on a draft and allow the students to rewrite their papers before they were given a grade. Another strategy was to use peer evaluation in grading the papers. This approach had three effects on the students. One was that the students started to accept more responsibility for their learning and became more self directed. Students also felt less helpless and exercised more power in the academic setting. The third effect was that the students established more interdependent relationships with the faculty (Zimring, 1994).

Rogerian educational principles have proved to be successful; however, the success or failure of the use of these principles is dependent on the politics of education and the educational establishment (Zimring, 1994).

Providing opportunities for co-learning using Rogerian principles

According to Rogers, in order for education to be successful, lecturers need to incorporate student focused approaches including:

Learning through enquiry – like Vygotsky, Rogers believed it was important for the lecturer to set the stage for a mindset of enquiry by posing problems and giving assistance, thereby making it possible for students to achieve discoveries independently. Rogers pointed out that students may not learn as many facts, but would develop an appreciation for learning as a structured and cumulative search for answers (Anon, 2008).

Peer teaching – Rogers believes peer teaching has many advantages, both for the student who is being helped and the more advanced student who was doing the teaching (Anon, 2008).

Collaborative learning – Rogers felt that many lecturers avoided group activities because they created too much noise, as a result, many classrooms were believed to be too silent. The result was that many students missed out on opportunities to engage in meaningful dialogue when they were expected to sit quietly and listen to others speak (Anon, 2008).

Self-assessment – Rogers felt it was important for some degree of self-assessment to be built into any attempt to enable learning from experience. He believed that the main way for student led learning to become responsible learning was to evaluate one's own learning. When the individual has to take some responsibility for the extent to which they have achieved a particular goal or criteria, they learn to take responsibility for themselves (Anon, 2008).

Rogers' belief on how to best structure learning

Rogers identified various methods and techniques used by teachers that he believed could be used to successfully structure student learning:

Building on problems perceived as real – Rogers believed it was important that teachers drew out problems or issues from students that were both real to them and relevant to the subject matter. He did, however, appreciate that it was sometimes necessary to create or contrive problems for the students (Anon, 2008).

Providing resources – Rogers believed that teachers should concentrate on providing resources that give students the opportunity to learn from experience in ways that are relevant to their needs. He advised making these resources clearly available by thinking through and simplifying the steps the students must go through in order to use the resources (Anon, 2008).

Identifying objectives – Rogers preferred to think about objectives in relation to the conditions of learning. He was concerned about the emphasis on behaviour and performance in many so-called learning objectives. He wanted objectives to help lecturers focus on the underpinning learning process. Rogers aimed for a facilitative classroom that focused on creating a climate for learning and experiences that supported student understanding (Anon, 2008).

Implications of the principles of Rogers' theory

Carl Rogers' writings led to various implications that may be valuable for consideration and allow for a process of reflection on the part of the lecturer:

Rogers believed that teaching which involved facilitative learning was preferable to direct instruction. Lecturers need to reflect on their lessons and consider the balance between the amount they directly teach and the amount they facilitate their students' learning.

Facilitative learning involves providing students with opportunities for problem- solving, which require students to hypothesise, ask questions and discuss lines of enquiry. Lecturers should determine whether they could provide more opportunities for students to work together and solve problems.

Rogers conducted research during the time of his writings and discovered that 70-80% of classroom talk was by the lecturer. Lecturers could make a video or audio recording of their lesson and note the proportion of time spent speaking by themselves and the students.

Rogers was passionate about lecturers showing their students empathic understanding. Often this happens instinctively and in unnoticed ways. Lecturers could be more aware of any empathic responses they make, to which students, and monitor their effect over time on the student's attitude and behaviour (Anon, 2008).

Conclusions

Rogers was concerned with the motivation and self of the student rather than with how that student should be taught. Rogers assumed that the student has an innate capacity for growth, and this self- actualising process, if it is freed, will lead to self- initiation and learning which is more rapid, more thorough and lasting than traditional learning.

These self-actualising processes are freed when the lecturer has particular attitudes, and self- initiated learning occurs when the congruent lecturer unconditionally prizes and responds empathically to the world of, and interests and enthusiasms of the student.

It is difficult for lecturers and administrators to change their attitudes, to share their power and responsibility and to trust the intrinsic motivation of their students to learn. However, where lecturers and administrators have changed their attitudes, the student's motivation, learning and behaviour is improved.

Rogers' ideas are applicable to all subject areas and all phases. His works provide for a focus on reflection and action for educational institutions and lecturers on ways of facilitating student-centred classrooms, how such classrooms provide opportunities for co-learning as well as ways of enhancing lecturer-student relationships and the benefits of doing so.

Ramsden (in Maharg, unknown) states that teaching and learning should be treated as complementary activities. The understanding of teaching is extended so that it becomes embedded in the nature of the subject knowledge and the nature of how it is learned. This represents the goal towards which all efforts at improving teaching in higher education should be directed. Changing lecturers' understanding of teaching is a necessary condition for improving teaching in higher education.

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Seventh Annual IIE Celebration of Teaching and Learning

2015 Celebration of Teaching and Learning

Between a Rock and a Hard Place

Using the roots of popular music as a means of teaching analysis and critique

Submitted by: Peter Bayer

What is the connection between a pre-colonial era Angolan herd boy and Tshepiso Baloyi of Thembisa, Tiffany Ponsonby-Smith of Sandton and Frik van Niekerk of Boksburg? Depending on the context, the answer is either nothing ... or everything. From this paper's perspective, it is my contention that the generations between the Angolan herd boy being snatched up and sold into slavery in the seventeenth century will help resolve problems experienced by 21st century students Baloyi, Ponsonby-Smith and Van Niekerk.

There can be few educators today who have not read work submitted by tertiary students and shaken their heads in dismay at the lack of base level technical skills such as punctuation and grammar. How many students are satisfied with citing Wikipedia as a reference source, despite being warned to do otherwise, or are content to use just one other source – usually the next alphabetically listed source in a Wikipedia bibliography due to its convenience rather than its value as an objective alternative argument?

Nicolene Murdoch, President of the South African Association for Institutional Research (SAAIR), in an interview with *The Star* newspaper, delivered 2012 statistics which showed that the graduation rate among undergraduate students in South Africa's 23 public universities is 15 percent, with just 20 percent of Masters students and 12 percent of doctoral students graduating.

On May 19, 2015, Radio 702's John Robbie, quoting a reputable source from the Department of Higher Education, confirmed that 60% of first year students across all universities in South Africa had bailed on their studies and left their campuses, unable to cope.

It is hardly news to tertiary institutions that, at undergraduate level, an alarming number of students are failing in a number of basic areas: English language skills, poor basic education, inept or poorly trained teachers, and learning in second languages are just a handful of reasons for this unfortunate situation.

It is in an arguably more academically critical area though that the focus of this paper is set, and the premise on which my concept is based; that is, an apparent inability of students to analyse and critique – two aspects which are, of course, intrinsic to tertiary education at undergraduate and utterly critical at postgraduate levels. There is, on the evidence, generally minimal in-depth research being conducted by students and, more alarmingly, even less understanding that knowledge gained from research cannot be one-dimensional.

In my research – including attending a forum with cross-faculty Heads of Departments from the University of Johannesburg and the University of the Witwatersrand, plus my own lived experience – I have learned that the Department of Higher Education has stated that for at least the past two years, students have (from a language perspective) broadly failed to understand the meaning of the word ‘analyse’, just as most students apparently have no concept of the purpose of paragraphs.

If we accept that human beings continually seek meaning, and that for a great majority of people meaning is taken as read when presented with a one-dimensional picture, then as educators we clearly have a problem in educating a new generation of matriculants and undergraduate students as to what constitutes understanding the concept of meaning, of semantics across the board, of the need for meaningful critique.

Jackendoff (1990:9) in explaining his concept of conceptual semantics – a framework allowing for semantic analysis – noted that Conceptual Semantics posits ‘a finite set of mental primitives and a finite set of principles of mental combination governing their interaction’ He later suggests that the very psychological organisation on which meaning rests is, in his words, ‘a very short distance below the surface of everyday lexical items – and that progress can be made in exploring it’.(1991: 44).

If that is true, then the methodologies needed to achieve this understanding among a generation seemingly continually plugged into technology must be adapted; upgraded, if you will. Simply discussing the writing of Ferdinand de Saussure, Umberto Eco, Noam Chomsky and others on a purely theoretical basis will, by nature of the evidence before us, be self-defeating for far too many students who, again on the evidence presented by two of Gauteng’s main universities as well as students at some (or all) IIE campuses, not only do not have the training to explore issues, they actually fear the concept of analysis because, in plain language, most do not have a clue how to take the first step in that exploration.

To exacerbate the problem, there is also the vexatious issue of the misnamed information superhighway which – far from being a road upon which all information stands signposted and ready for plucking – is at best a single track which does not allow students to explore the beauty of side roads and alleyways in which deeper information resides. The ease of use of optimised search engines, the desire to reside as a member of the thumb communication generation, as well as (in many instances) time constraints due to work overload, all conspire to imprint in the minds of many young people that what is seen and experienced at first blush is, de facto, the truth.

The eternal question – why? – is becoming less important to students than when and how?

How then do we educate undergraduates that the search for meaning and the analysis of that meaning is by its very nature, multi-dimensional? How do we convince students to fully investigate any aspect of academic requirements, life, entertainment, issues and challenges and analyse what they find ... and create in them the ability to accurately and concisely critique their (and others') findings?

The answer to: did you enjoy the movie/ book/ music is all too often met with a shrug and an "it's nice" answer.

Hardly cum laude quality. It is a catch-all which does not allow the speaker to extrapolate why they reached their conclusion.

De Saussure, Eco and Chomsky? Or perhaps attack the issue using a methodology which is closer to home for humankind as a species, let alone just students.

By putting a template in front of first year students specifically, and tertiary students in general which shows the ritual, metronomic purpose/context; authors; audience; topic and position; research/sources; proof/evidence; organisation; style; conclusions; is hardly a solution. It is akin to telling an unsighted person that red is the same colour as a tomato.

The answer may well lie in students' headphones. My proposed solution is thus formed on the basic premise that most students enjoy music, be it kwaito, classics, rock, *langarm sokkietreffers* or gypsy jazz guitar. Generally, students – as do most people - enjoy music based on their respective environments, education, peers and social mores.

Few can explain why hip hop or R&B or punk or classical guitar creates a pleasurable experience for some, hatred in others, and cognitive dissonance (fans of Justin Bieber) in yet others. For many, music creates a pure, primal sensory experience (music for dancing, as the expression goes), for others it is a sub-conscious quest to find meaning in the lyrics of Bob Dylan, John Prine or Joshua James. For yet others it is a pleasant way of blocking out the noise of nagging parents and/ or lecturers.

Between Rock and a Hard Place is designed to plumb into that universal love of music, regardless of genre, as a means to an academic end. Indeed, at its core, the concept is best suited to students who have little more than that primal enjoyment of sound and rhythm.

The question the lecturer will ask the class is simple enough: where does YOUR favourite musical genre have its roots?

Cross (1998:3) cited by Angelo, argues that “strong support for engaging students in interactive, collaborative learning communities can be found in the research on learning outcomes, on development, and on cognition and motivation”. It is in this milieu that the lecture has its academic rationale.

The lecture itself is based largely on my own lived experiences as a music critic and former semi-professional musician and anecdotal information gleaned from people deeply steeped in music at a professional level and whom I have interviewed over several decades. I have one of the larger local private collections of recorded music covering a multitude of genres and ages, including early recorded works of the likes of the father of Blues, Robert Johnson as well as mint original recordings of a variety of artistes ranging from operatic icons Gigli and Caruso, via the big band sounds of Harry James and Frank Sinatra right through multiple genres of modern music deemed, for the sake of a panoptic genre, as “rock” under whose umbrella all popular music resides.



*Robert Johnson, date of photograph and photographer unknown.
Picture accessed from www.tdblues.com*

I have conducted multiple interviews over the years with such luminaries as Paul and Andrew Tracey - two ethnomusicologists who are pre-eminent experts in African music and whose writings and recordings can be sourced at the International Library of Africa music. I have also studied the written and recorded work of Paul Oliver who is regarded as the world's foremost expert on what is broadly referred to as the “history of the blues” in which he recorded hand piano and percussion music by Ibo and Mandingo tribesmen in Africa, from where much of today's rock music began.

I have interviewed, spent time with and (I'm embarrassed to say) jammed with the likes of Trevor Rabin, Mutt Lange, Phil “Snakefinger” Lithman, Professor Eldred Chimowitz, Nols Klinkammer, Neil Young and Albert Hammond.

All provided major input – specifically Lithman who, in the 1960s as a British rock musician (*Chewing Hides the Sound*) became strongly influenced by the blues, as did Eric Clapton, Peter Green, Long John Baldry John Mayall and others, all of whom managed to infuse blues into what became known as rock. I spent time in a recording studio in London, recording an album of “throwback” music on Lithman’s album, *Bongos over Balham* (as Chilly Willy and the Red Hot Peppers, distributed circa 1971). It was an early peep into how the blues might appeal to a listenership whose heroes included The Beatles, The Rolling Stones and The Who.



- *Phil Lithman’s historic History of the Blues tour to Europe in the 1970s. An acetate of the first concert in Germany has the crowd booing for the first 10 minutes (they were expecting Lithman in his hard rock guise). The last 20 minutes has the same crowd baying for encores during a standing ovation. Picture from author’s private collection.*

I have reviewed live performances and interviewed the likes of Brian May of Queen, Elton John, Christopher Cross, Linda Ronstadt, as well as classical pianists such as Peter Katin and Fou Tsong, Gypsy violinist Stefan Grapelli and more. I have visited the New Orleans Jazz Festival several times, interviewing Mac Rebenack, *aka* Dr John, the greatest living exponent of Louisiana Blues, and spent time with B.B. King in London in 1994, discussing electric guitars.

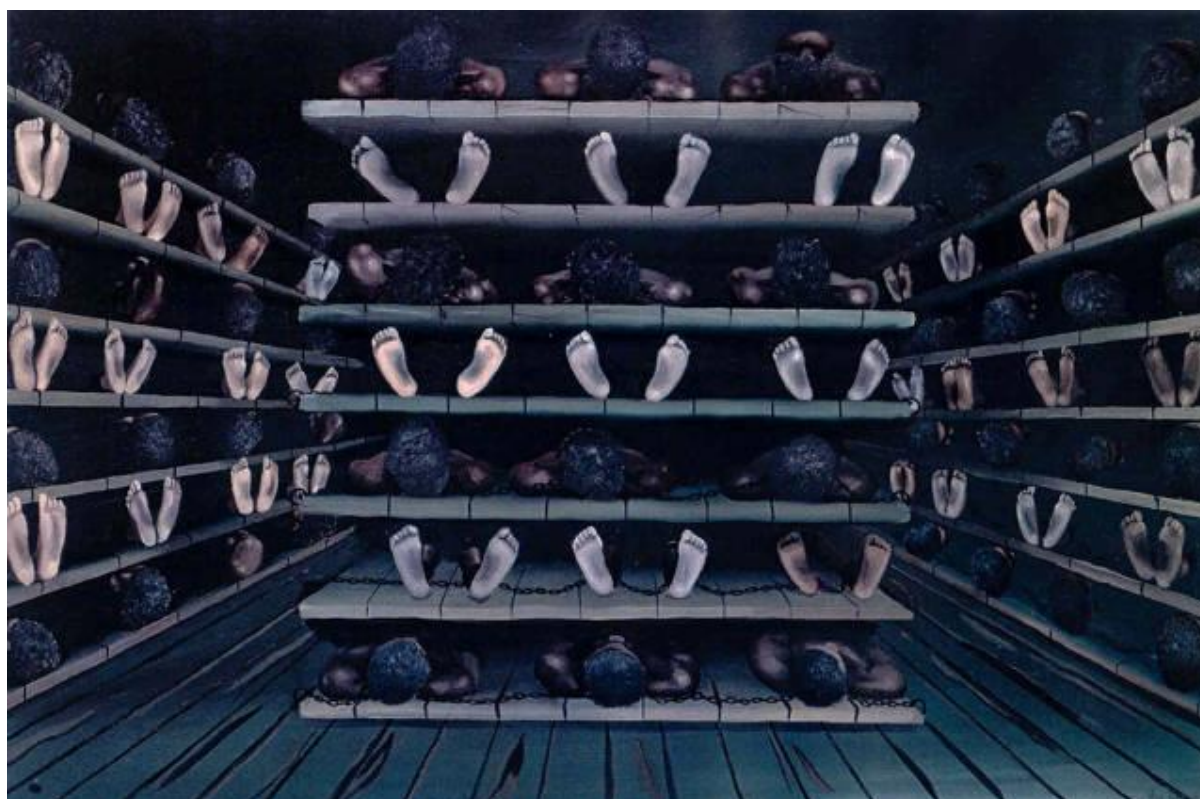


- *Andrew Tracey, left, Paul Tracey, centre, and Jeremy Taylor. The Tracey brothers are globally recognised as the world's leading ethnomusicologists.*
- *Image sourced from <http://kalimbamagic.com/newsletters/newsletter3.08/>*

From this smorgasbord the *Rock* lecture emerges, using audio and visual aids, and which transports students from the roots of rock in Africa, and journeys with slaves to the USA, via the West Indies, Cuba and South America, emerging (usually) at New Orleans, Tennessee and the Carolinas.

Wood (1997:137) records that the slave trade was designed to cater for European colonies' need for labour, specifically Caribbean sugar colonies operated by Great Britain, Spain, the Dutch republic and Spain. The bulk of those slaves were sold to slavers by tribal kings from, in the main, the area now known as Angola, and which supplied over 50% of Africans sent to the then-British North American colonies.

In all, Wood states, a staggering 11,863,000 Africans were shipped to the Americas, a number confirmed by Steven Mintz of the Gilder Lehrman Institute of American History. Mintz (2010) adds that over half a million slaves arrived in the USA alone between 1619 and 1807 directly from Africa. That is, not via the islands, The following infographic shows the "travel arrangements" for slaves.



Infographic viewed at www.fastcodedesign.com. It does not reflect the utter squalor of the slave quarters on board ship.

Berendt et al (1999) constructed a table, appended as Addendum A, showing the distribution of slaves over that period.

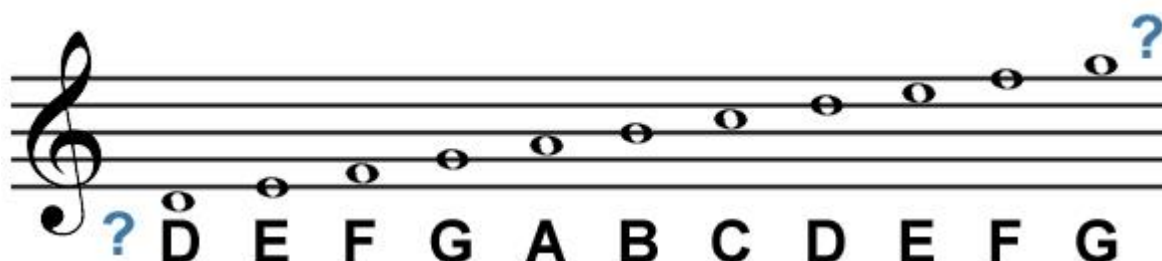
In each place where slaves were dropped off, a little of their musical soul also disembarked, resulting in, for example, Afro-Cuban rock, as played masterfully today by Carlos Santana; Mississippi Delta Blues; and French-influenced blues in Louisiana (where zydeco resulted from the bayou Cajun music – Zydeco is the musical currency of Louisiana’s French Creoles and blends blues and rhythm and blues with indigenous Louisiana music). A fairly comprehensive list of blues genres is contained in addendum B. It is, as you will note, a broadly eclectic canvas of sounds and styles produced by musically untutored people who could not read a note ... but who created their own individual tuning protocols. It is of anecdotal interest that the aforementioned Robert Johnson would turn his back on fellow musicians when tuning his guitar so that the proprietary nature of his tuning was ensured. Thus, Open G, slide guitar tuning (mostly open E) and more styles and eccentricities made for unique musical expression.

Meanwhile, in inland USA, the influence of European music – orchestral classics, piano and sundry other genres such as Irish jigs (which constituted the roots of what is known as Bluegrass, which metamorphosed into country and western) – was making its own inroads. Eventually the clinically refined and controlled paths of western music and the polyrhythmic beat of African music were bound to cross. The two wholly different styles looked each other up and down, then walked away, each intent on preserving their identities and ethnic foundations. No mixed marriage acts in music, as it were.

Of course, some connections were made, such as Scott Joplin – a musically gifted black youth – who wrote beautifully crafted “rags” for piano. Jazz, which had its roots in New Orleans over a century ago, was the first sign that the two musical cultures had collided. Experts will state unreservedly that the roots of jazz are firmly founded in the traditions of African and European music – a true union. Jazz led to swing and big band music and ultimately through multiple layers including doo wop to where we are today.

The result has been a tantalising blend of multiple styles, genres, rhythms, the drum-related African polyrhythms, percussion and vocal styles adding to what Scaruffi (2000) calls the “wildly different linear rhythms” of European music.

Scaruffi is, of course referencing that western music is written on a grid of parallel lines called a staff, with the position of each note on the staff (and the spaces between these lines) showing each note’s alphabetic name, as below.



There is no history at all of African music ever being written, the music being polyrhythmic – that is, the simultaneous use of two or more conflicting rhythms and thus more free-flowing. An example of this can be found in, for example, Southern Baptist gospel, which is massively influenced by the so-called slave music culture of singing, clapping and “callin”.

Students are exposed to this history audio-visually: they are given the evidence of the roots of the music they follow by being asked to consider, for example, how African syncopated rhythm – provided by clapping, foot stamping and singing – continued their African legacy, using freeform styles, call-and-response as verse bridges, measured against the metronomic precision of western music.

Open-ended Africa versus the contrasting linear progressive style of western music. Drums and voices versus fiddles, banjos, and such sundry noise-making instruments as washboards, whiskey jugs and teaspoons. Orchestral versus choral.

Something had to happen, and did. Slave owners began to use their “nigras” to provide music for dancing at parties and cotillions, the Africans having quickly learned to master western instruments ... while adding their own polyrhythmic styling.

Students are shown how, as the two cultures intermingled – tentatively at first – the music that would ultimately so influence 20th century musicians began to place layer upon layer of styles and additions, instruments, lyrics, harmonies.

The lecture introduces students to Blind Lemon Jefferson and Dr John, to Scott Joplin and Django Reinhardt, from African Mandingo drummers and *mbira* players to Buddy Rich, Gene Krupa and The Beatles.

Layer, upon layer upon layer – each layer having its own sub-strata to explore. They are taught how a young white boy in Tupelo Mississippi was so enamoured of the wholly black Southern Baptist church choir over the road from his modest home that he eventually became immersed in the music, the harmonies and the pure joy of the singing, and how as an adult he became the first cross-over performer whose blend of European Rock and Roll and the freewheeling gospel sounds of that Tupelo choir became a global sensation.

The boy's name was Elvis Presley.

It shows students that, if you care to look, listen and explore, their generally one dimensional musical comprehension can become an endless universe. The roots of rock is a subject I've been exploring for decades – and have just scratched the surface.

The presentation is interactive and audio-visual, using recorded music and DVDs with a PowerPoint anchor. Students are not only introduced to the music itself, but also the lyric content – most blues songs having struggle, heartbreak and women with loose morals as central themes. It goes towards underpinning a terrible time in the annals of human rights abuses and the misery that slavery created.

There is also a very spiritual aspect to that early music – legendary bluesman Furry Lewis once remarked, “Ya cain't get to heaven with the blues on your mind” ... this philosophical viewpoint in counterpoint to the wryness of *Midnight Special*, a traditional folksong whose lyrics were finally written down by one Howard Odum in 1905 – but which was handed down acoustically over generations – and which tells the story of condemned men believing that if the light of a passing train, the *Midnight Special*, shone into their cells, they would be pardoned.

The irony is that there were no windows in death row cells.

There is also a look at the elements of humour: for example, students are enlightened as to the roots of such commonly used 21st century words as “funky” ... which doesn't mean “cool” in the vernacular but rather is derived from so-called “funky butt” music - blues played by the poorest of the poor who would soil their pants rather than take a toilet break and lose out on a few pennies dropped into an old flat cap on the pavement.

Students are also acquainted with the often obscure instruments used by those early musicians: washboards, spoons, kazoos, tea box basses, and the inevitable whiskey jugs, all of which are clicked, blown or strummed to create background to guitars and occasionally fiddles and mandolins. They are introduced to Jaw harps (commonly mispronounced as Jews harps) an instrument, shown below, which is clenched between the teeth and the metal protrusion twanged.



The 1927 photograph, below, shows the original Memphis Jug Band, with a two gallon jug blown as a bass sound – after the whiskey had been consumed, needless to say.



Photograph sourced from Old Weird America (2000) Photographer unknown

Having completed the presentation per se, students are then shown a documentary by renowned directors and lovers of early American music, Martin Scorsese or Clint Eastwood on a particular genre and, using their newly acquired understanding of the roots, must critique the documentary using the correct terminology to explain our good old friend, why?

The alternative is to have students find a CD or album to critique. Suddenly, Lira's new album is no longer just plain "nice" – rather, it is "nice" because ... or Britney Spears is just plain awful because ...

Gamson and Chickering (1987) contend in *Seven Principles for Good Practice in Undergraduate Education* that undergraduate students benefit immensely by using active learning techniques such as my concept provides. Equally they note that active learning techniques respect diverse talents and ways of learning.

I concur too with Pappas (2012) who believes the key to teaching analytical skills to students resides in four key elements; Task (are students designing their own model?); Choice (have students explored all the options?); Product (what will students produce to demonstrate what they've learned?) and; Assessment (is the product suitable for either peer review or self-reflection?).

While ideally suited to active learning - any instructional method that engages students in the learning process, requiring students to enjoy meaningful considered learning activities – the *Rock* lecture also opens the door to the teaching of critique via collaborative learning, which is an instructional method demanding that students work in groups to attain a common goal ... with critiquing as a key component.

Prince (2003) argues that collaborative learning can be seen as “encompassing all group-based instructional methods, including co-operative learning”. Either way, be it aimed at individual students or students in clusters, the concept provides the means for students to dig deeper and, having found a satisfactory source of information to answer a hypothesis, gives them the intellectual tools to commit their findings to paper in a meaningful academically acceptable manner – while enjoying the task itself.

There is a worst case scenario for attendees of this lecture: that is that they will understand why it is they sometimes find themselves instinctively tapping their feet to the music adored by their parents and grandparents, without knowing why.

ADDENDUM A

Distribution of slaves (1519–1867)	
Destination	Percentage
Portuguese America	38.5%
British America (minus North America)	18.4%
Spanish Empire	17.5%
French Americas	13.6%
British North America	6.45%
English Americas	3.25%
Dutch West Indies	2.0%
Danish West Indies	0.3%

Source: Behrendt, et al (1999)

ADDENDUM B

The following is an abridged list of blues genres. It excludes such exotic offspring as Acid Blues, which owes more to the 1960s drug culture than the musical genre.

- British blues;
- Canadian blues;
- Chicago blues;
- Delta blues;
- Detroit blues;
- Electric blues;
- Gospel blues;
- Hill country blues;
- Hokum blues;
- Jazz blues;
- Jump blues;
- Kansas City blues;
- Louisiana blues;
- Memphis blues;
- New Orleans blues;
- Piano blues;
- Piedmont blues;
- Punk blues;
- Swamp blues;
- Texas blues;
- West Coast blues;

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Sevent Annual IIE Celebration of Teaching and Learning

2015 Celebration of Teaching and Learning

“Ideas” to “Practice”: Investigating the fragilities of the process of formative peer review in teaching, and student learning.

Submitted by: Phomolo Mosito and Jethro Bhondayi

Introduction of the topic

Teaching and learning management can use different ways of assessing the teaching success of teachers. Some of these ways may include but not limited to formative (ICE, Tests and Assignment) and Summative assessments (Examinations and Portfolio of Evidence) but this is not enough to determine proper engagement in the classroom. Evidently, assessment results are not determined by how poor or good a lecturer/teacher is in engaging the students. On the other hand, students' results cannot be a sole determinant of the degree of student engagement and learning success nor the effectiveness of teaching. Therefore, there are other crucial student engagement variables that have not been sufficiently explored, and peer-review is one such variable. Against this notion, this study seeks to investigate the fragilities of peer-review in teaching and student learning. The paper seeks to answer burning questions regarding this otherwise significant tool in situations of higher learning. As an obvious assumption, these institutions of higher learning highlight the important point of peer-review as a tool for development in teaching and learning, therefore, it is considered a measure of quality of delivery of the curriculum in the classroom and outside. The question is: to what extent does peer-review serve as an interventionist instrument that aims to develop teachers and teaching and learning in the classroom? The other significant question is: how is peer-review beneficial to the students, if at all?

Motivation for the topic

The questions teased above heightened and intensified our interest in the matrices of peer-review practice. We therefore hypothesize that most lecturers do not welcome the peer review route with open arms, because it elicits unwanted feelings of anxiety and uneasiness in which their teaching methodologies come under scrutiny. Others fear that they may lose their jobs if their approaches do not meet the standards and requirements of their reviewers. We as researchers, on the other hand, viewed (that is before this study) peer-review as an educational tool that is aimed at ensuring the mutual translatability and reciprocity of both the reviewer and the reviewee's (sic) experiences, in education (higher) to guarantee effective teaching and student learning in the classroom.

Therefore, if this shallow understanding stands, then there must be an implicit co-existence of the two (reviewer and teacher) for it (review) to be deemed a success. The researchers propose that there should be a complimentary relationship between the reviewer and the reviewee (sic) in which both combine their skills and draw from their experiences to churn out a successful peer-review. In this envisaged process the reviewer is to facilitate, arrest the pros and cons, ground and address the teacher and alleviate the anxiety the reviewee may have.

For one to fully understand the fragilities of peer-review there is a need to arrive at the working definition of peer-review. Generally, peer-review may be defined loosely as: the evaluation of creative work or performance by other people in the same field (in the education sector. These individuals are usually teachers and/ or reviewers who should also have strong teaching background to merit an opinion from the reviewee) in order to maintain or enhance the quality of the work or performance in the teaching and learning field. Peer review can best defined as a process in which “academic colleagues give and receive feedback on their teaching/ engagement practices and their effectiveness in promoting student learning’ (Harris et al, 2009, p.5). According to (Costello, Pateman, Pusey, & Longshaw: 2001) there are three generally-recognised types of peer review of teaching; and these are diagnostic, formative and summative peer reviews. We cursorily draw the difference between the three, in which case, the Diagnostic peer review is a limited-term form of peer review (Costello et al. 2001) as it serves the purpose of identifying and addressing issues arising from an individual’s or department’s teaching practice. Formative peer review may be understood to be an ongoing process of professional development that aims to continually develop the individual and collective quality of teaching. The third type of peer-review is called Summative peer review which is a recurrent process that aims mainly to evaluate teachers’ current level of ability (Cavanagh, 1996). This paper focuses on the formative peer review paradigm: in other words, what is it, why and how should it be done, and lastly, how the educators can respond from peer review “Ideas” to “practice”?

According to Richard Smith (2010), the peer review process is fraught with more damage than benefits. Richard Smith (2006) further asserts that it is a process which is characterised by slowness, administrative technicalities, ineffectiveness; and the whole process is prone to bias and abuse, and it is at times used to settle personal scores rather than be used as a developmental tool for teachers/ lecturers. However, there are benefits or value embedded in the process of the peer-review especially if it is carried out effectively, as argued in the recommendation section of this paper.

Description of the topic

This research paper is guided by the following questions that are thoroughly addressed in the recommendation section: Who should be involved in the review process? Are the development measures proposed after the review put into practice or do we simply review to fulfil our duties as agents of Academic Management (ADCs and HODs as examples)? How should the process be carried –out? In an attempt to clarify the dynamics of peer-review process Black and William (1998) define formative assessment as: “all those activities undertaken by teachers, and/ or by their students, which provide information to be used as feedback to modify teaching strategies”. (Melmer, Burmaster, & James: 2008) offer an alternative definition - and delimit formative assessment to a process used during instruction to provide feedback for the adjustment of an ongoing teaching and learning for the purposes of improving student achievement and engagement related to instructional objectives.

Formative peer review is becoming a prevalent practice in Higher Education institutions, but concerns seem to stem from how it should be managed. Formative peer reviews assist teaching staff within a faculty to examine their teaching for purposes of self-improvement, and for the very same teaching staff to systematically assess teaching performance as a professional faculty activity in connection with improving teaching strategies and how students are engaged to learn to promote citizenship, community engagement, etc.

In formative peer-review, information regarding the peer-review is collected or shared to improve teaching, as requested by the faculty member. Reviewers have a moral obligation to approach the evaluation of colleagues with sensitivity and respect; to assist the reviewee to critically reflect on his/ her teaching strategies. As much as reviewers have to be sensitive, they still need to remain critical and clinical; though without imposing their philosophical inclinations during the post-review phase. For instance, there may be a reviewer who prefers a constructivist approach to teaching and may subjugate the review process on his or her school of thought. Even though academic workplaces have their own unique cultures and conventions that are the product of a number of variables, the review process must allow for some level of individualistic types of methodologies that do not necessarily tie in with workplace cultures and values. However, the reviewer's experience to the review should be second to none, especially on how to share, not only insights, but suggestions on designing strategies aimed at enhancing teaching and learning.

Explanation of the outcome/ impact/ results

Some critics also believe that peer review has a built-in bias against highly original works and results because reviewers (as do people in general) tend to be more tolerant of works and results that are consistent with their own views or personal predispositions, and more critical of those that contradict them. It should be kept in mind that history is replete with examples of innovations that were originally ridiculed by their peers because they contradicted the common wisdom of the day, so according to the researcher in this paper, history is generally paralleled with peer-review. As Patchay (2007) argues:

It is by now a commonplace that the narratives which constitute "History," with a capital "H," are interpretations of events from the vantage point of those who have the power and influence to write History. The corollary of this, of course, is that these Histories will include events deemed by their writers to be important to themselves, to the culture and development of the group to which they regard themselves as belonging, at the expense of events deemed less important.

Patchay's contention exposes us to the truth about history which is storified or narrativized, and helps to lay bare the fragility and discursivity of peer-review because in the process of conducting a peer-review the reviewer subjects the feedback to his/her point of view or own personal observation. This is to insinuate that the tool may be standard, but the interpretation lies with the reviewer who like the historian interprets the result through his/her vintage point of the observer or writer. The corollary of this is a peer-review process that is biased and flawed because the outcome is subjected to the observation and interpretation of the reviewer as no two people can have the same interpretation of the peer-review process. This means that we have lecturers within a faculty who voluntarily seek peer review, and ideally, this must be an ongoing activity in one's teaching career. The emphasis is on reflection on what they have discussed, experienced in the classroom, or read in portfolios. According to (Keig & Waggoner: 1994) formative peer review can be conducted using direct classroom observation, videotaping of classes, evaluation of course materials, assessment of instructor evaluations of the academic work of students, and teaching portfolios.

According to (Juwah, Macfarlane-Dick, Matthew, Nicol, Ross, Smith: 2004)) the central role of formative assessment in teaching and learning in Higher Education is to provide information to teachers about the difficulties students may be experiencing so that lecturers can refocus their teaching efforts, and (Juwah et al: 2004) argue that formative assessment "should be an integral part of teaching and learning in Higher Education"- therefore it may be argued that yes peer review is indeed beneficial to the students. The major purpose should be centred on coming up with solutions rather than diagnosing mistakes. When the peer review process has come to full circle, prominence must be placed on tackling future assigned tasks. Feedback on performance would enable the reviewee to reflect and reorganize their understanding to construct more powerful teaching strategies (Juwah et al: 2004).

Some basic concepts that must be kept in mind when engaging in this type of review involve focusing on one or two specific behaviours to be looked at and perhaps changed (e.g., clarity of lecture, pacing) or on specific components of the course such as texts used or tests. Sensitivity is a crucial component as there is need for high levels of confidentiality between lecturer and reviewer. Formative peer review has a very creative and remarkably interesting phenomenon where teaching strategies are enhanced by faculty volunteers who request to be observed; and interested colleagues come to their class to watch them teach, and a subsequent discussion covers any aspect of teaching.

Conclusions/ Recommendations

There are several methods that can be implemented to establish workable techniques for peer reviews in South African institutions of Higher Learning.

- Peer reviews must be instituted with a top-down initiative, but this approach need prior consultation between the reviewer and reviewee before the actual review process gets into motion.
- Faculty management and senior academic staff must conduct workshops with all faculty lecturers for raising awareness on the importance of this interventionist instrument; and to identify and map new strategic directions for peer reviews.
- There must be a concerted effort to engage all lecturing staff in frank debate, to establish a faculty organisational strategic plan for flexible peer reviewing.
- In tandem with top down strategies, a bottom up consultative approach needs to be factored so that reviewees feel that they are part of the integral process.
- A needs assessment of lecturers or staff is also vital to gauge areas of amicable congruency that should be looked at in the review process.
- A combination of a top-down and bottom up method should ease all anxieties associated with the review process.
- Faculty senior academic staff must, in liaison with all lecturing staff, encourage communities of inquiry or practice to promote collaborative, systematic and sustained support for lecturers who need support.

It is therefore imperative to note that the peer-review may be beneficial if it is carried out effectively and efficiently. It is not only the responsibility of the reviewer but the reviewee may also help to make the review successful by being truthful and honest in the pre-review and post-review meetings. However, the review can never be objective as the feedback is subjected to the vintage point of the reviewer, i.e. educational background, perceptions, personal predisposition, etc. So sensitivity on the side of the reviewer is recommended especially during feedback.

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Seventh Annual IIE Celebration of Teaching and Learning

2015 Celebration of Teaching and Learning

Academic Support Strategy for Student Success (Assist): A Conceptual Framework

Submitted by: Vedhna Lalla

“Education is the most powerful weapon which you can use to change the world.”
Nelson Mandela

Introduction to Topic

The South African education system has been under the spotlight over the past few years with pervading themes including striking educators, missing textbooks coupled with dismal matric pass results. In light of this, universities are faced with increasingly difficult challenges when it comes to admitting students while ensuring that students cope with the academic standards expected at a Higher Education Institution. Furthermore, the retention of students poses additional obstacles for these institutions in terms of ensuring course completion.

Letseka and Breier (Maile, 2008, p.83) indicate that data on higher education trends in South Africa show that 50% of students enrolled in higher education institutions drop out during their first three years of study with approximately 30.5% of students dropping out during their first year. This occurs in spite of the fact that some of these students would have passed their Senior Certificate qualification with endorsement, merit and in some instances, distinction. It should be noted that many students come from poverty-stricken families and are indebted to the National Student Financial Aid Scheme, (NSFAS), and other education funding agencies, which support their studies. Thus, the drop out phenomenon does not bode well for efforts made to end poverty and is the considerable cause of the low throughput rates in higher education. Increasing numbers of higher education institutions (or HEI's) are introducing bridging programmes to assist students who have not met the required university admission criteria. South African Government has made the university admission process somewhat more streamlined for HEI's by introducing the National Benchmark Test (NBT).

For all intents and purposes the NBT serves as a university entrance exam.

According to Career Planet (2015) the NBT has three specific goals:

1. To assess the students' academic literacy and mathematics skills at entry-level.
2. To correlate the relationship between entry-level skills and school-level exit results.
3. To provide institutions requiring additional information in the admission and placement of entry-level students with such data.

Manuel Castells, (Ministry Of Education, 2001) a social theorist who served on the Presidential International Task Force stated that “if knowledge is the electricity of the new informational international economy, then the institutions of higher education are the power sources on which a new development process must rely.”

Rationale

The South African Education has been a victim of politics. During apartheid, students protested against the “Afrikaans” curriculum, thus violence ensued while schools found themselves at the forefront of the revolution. A decade later, with apartheid now being a part of our history, the schooling system is still pervaded with problems. Schools are not adequately equipped with resources as students do not have access to information technology. In addition, students attending schools where English is taught as a second language struggle at university. Matric Mathematics and Science results are poor year in and year out.

“The youth league of the ruling African National Congress said it was ‘appalled’ by the results. How can we achieve economic freedom, the league asked, when our future leaders have difficulty reading, writing and counting?” South Africa is now a part of the global community, which leads to other social problems that students are faced with including peer pressure, fitting in, drugs, alcohol, etc. (Powell, 2012).

A recent article on NEWS24, (Wicks, 2015) illustrates some of the existing problems that learners are faced with in schools right on our door steps. To this end, an independent audit conducted by Total Equal Education on sanitation at two hundred schools in the Gauteng region revealed almost a third had over one hundred learners making use of a single toilet. Their study alluded to the following findings:

- In 30% of the schools audited, over one hundred learners were sharing a single working toilet.
- One in five toilets were either broken or locked.
- 70% of schools have no access to soap and 40% have no access to toilet paper or sanitary pads.
- Over 25% of schools have more than four hundred students to one maintenance staff member.

All of the above has a great tendency to contribute to low school attendance and poor concentration levels.

The Millennium Development Goals (MDGs), endorsed by governments at the United Nations in September 2000, aim to improve human well-being. This may be achieved by reducing poverty, hunger, child, and maternal mortality, thereby ensuring education for all while controlling and managing diseases, tackling gender disparities, ensuring sustainable development, and pursuing global partnerships. There are eight MDGs with goal number three speaking to: Promoting gender equality and the empowerment of women.

One of the primary outcomes of the Rio+20 Conference was the agreement by member states to launch a process to develop a set of Sustainable Development Goals (SDGs), which will build upon the Millennium Development Goals and converge with the post 2015 development agenda (Sachs, 2012).

Having said this, referral to the aforementioned audit conducted by Total Equal Education (Wicks, 2015) is necessary. How will we as South Africans achieve the third goal if we cannot resolve the sanitation in our schools? Female learners' attendance on the days that they are menstruating is minimal. The sanitation problems add to the challenge and so they lose out on important school days. This impacts performance and motivation. These are just some of the challenges that we face with respect to the current education system in South Africa.

The rise of private basic and higher education in South Africa has been in response to the challenges that are being faced. Many South African citizens are opting to pay the higher fees to ensure that their children have a better education with access to technology and other necessary resources.

However, this does not necessarily imply that students attending private schools or private HEIs are from affluent families. Citizens in South Africa are painfully aware that the public education system is in need of extensive improvements and that the impact on the learners cannot be ignored. It is for this reason that parents make tremendous sacrifices to be able to send their children to private education institutions.

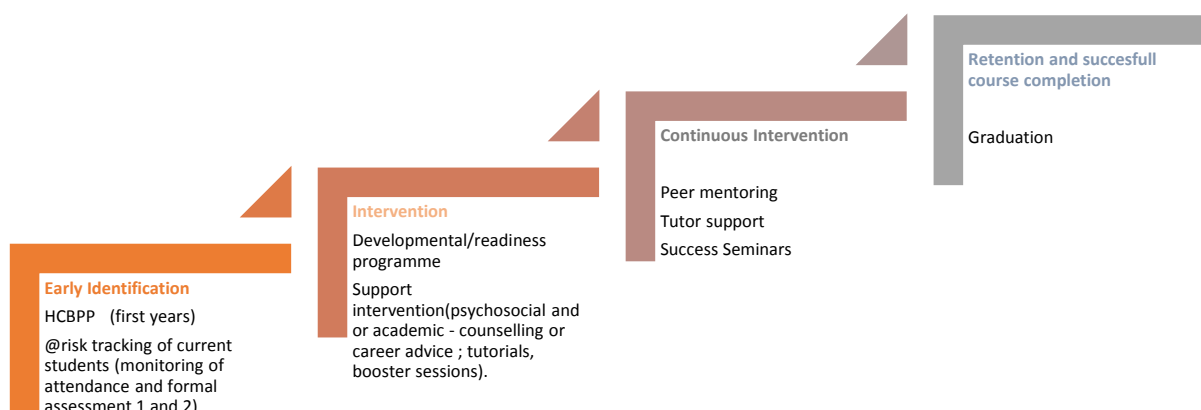
The Independent Institute of Education's (IIE) Varsity College is a private higher education brand that is based on a uniquely progressive approach to learning and development. This premium student-centric approach focuses on academic excellence, market-leading teaching practices, comprehensive student support and authentic campus experiences, thereby expertly preparing its students for accelerated progress throughout their studies, careers, and lives.

Retention

Tinto (cited in Seidman, 2004/2006, p.1) explains it is a known factor that first early warning and proactive interventions assist in ensuring that there is a higher success and retention rate among students. Furthermore, Seidman's formula for student success has been widely researched and is now presented in a formula that appears as follows, $Ret = (Eid + Int + C) \div Iv$, this translates to suggest that Retention equals (Early Identification, intensive and continuous) intervention (Tinto in Seidman, 2004/ 2006).

The ultimate goal is to ensure that students who register for tertiary education successfully complete their studies and continue on to post graduate study.

Retention formula



In summary, the aim of this formula is to identify a student in need of assistance academically and/ or socially as early as possible, assess student needs, prescribe interventions and monitor, assess, and adjust interventions where necessary.

The IIE's Varsity College has student support at the forefront of their agenda. This approach is aimed at ensuring that students who register at Varsity College successfully reach course completion and graduate to become contributing members to South Africa's economy.

"Too often we underestimate the power of a touch, a smile, a kind word, a listening ear, an honest compliment, or the smallest act of caring, all of which have the potential to turn a life around."

– Leo F. Buscaglia

"Rites of Passage"

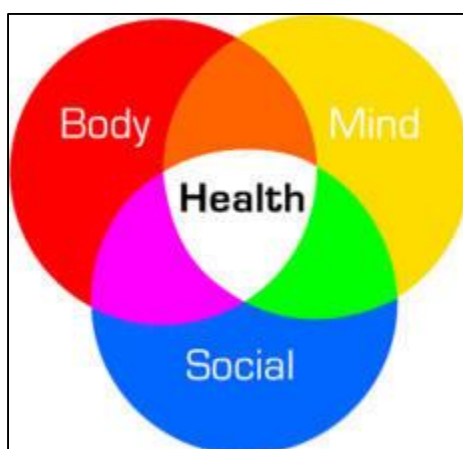
Tinto (cited in Seidman, 2004/2006) argues for the stages of "passage" in a student's college career by alluding to three stages: Separation from communities of the past, transition between high school and college and finally, incorporation into the society of the college.

The first rite of passage is **separation from the past**. Failure during this stage is directly linked to the student's inability to separate from his/her friends, family and secondary school. Upon admission it is incumbent on the new student to begin acquainting him/ herself with the campus environment and resources. Here the campus counselling services and student forums play a vital role.

The second rite of passage relates directly to the ***student's transition into the university and academic life***. Here the student should be able to integrate both socially and academically and there needs to be a realisation that he/ she no longer fully belongs to the “home” community, nor are they completely bound to the campus environment.

The third and final rite of passage refers to the ***student's incorporation into university life*** – where the student moves away from the norms of their past and develops new values and associations. Engaging in extra curricula activities, club membership, and sport contributes positively to this phase.

In analysing this conceptualisation, one needs to examine retention holistically. To achieve this vision, the model is based on psychiatrist George Engels' 1977 suggestion of the bio-psychosocial concept, which adopts a far broader view of wellbeing.



(Rabinovitch, 2010).

The National Plan for Higher Education (Ministry of Education, 2011) was released in 2001 and was developed to redress the inequities of the past in regards to education in the country. The ministry highlighted the need to be inclusive in admission and focused on ensuring that there was no discrimination regarding university admission. However, the ministry was mindful of the challenges that Higher Education Institutions will be faced with and included Academic Development in the plan as part of the academic process that should be integrated into the curriculum.

In response to the education crisis, Varsity College has implemented the Higher Certificate of Business Principles and Practices programme (HCBPP). This pathway programme functions as a bridging course allowing students to articulate into a degree qualification upon successful completion. This programme is for those students who did not obtain the NBT scores or may have not done as well as they had expected and perhaps did not obtain Bachelors or Diploma entrance during grade 12. In principle, an awareness exists that students articulating into this programme are already at an academic disadvantage and may experience problems with coping at a higher education institution.

With students admitted into the HCBPP programme, we are aware at the outset, that there may be some academic difficulties. It is important for us to then understand that support needs to be carried out proactively. The ultimate aim of this support is so that students gain academic understanding and are able to identify the differences between the academic requirements of school and tertiary level education. The fact that a percentage of students attending Varsity College or any other private HEI derive from the middle and low income families, which also means that their needs should be looked at in context. This realisation may contribute to psychological and social challenges. This analysis will enable students to begin to understand what is expected of them in terms of their academic workload while also being able to identify their strengths and weaknesses, academically. Varsity College takes this process a step further as we understand that tertiary education is not only an academic experience, but a life experience as well. It is for this reason that Student Support adopts a holistic approach to ensuring student retention as well as academic success. The student is approached using the “bio-psychosocial” concept. The student cannot be supported based only on academic performance as one cannot isolate the problem from the person and the situation. Gestalt Theory superlatively describes this as “the whole is equal to more than the sum of its parts” (Encyclopedia Britannica, 2014). Thus, one cannot analyse each aspect in isolation of the other.

@Risk

Varsity College has an “At Risk” monitoring system, in which both support staff and lecturers play a vital role. Some of the “At Risk” signs tracked include:

- Poor class attendance;
- Poor results;
- Late or non-submission of assignments and Integrated Curriculum Engagement (ICE) activities.

This process of tracking “at risk” students is paramount in ensuring that we maintain a positive First Year Experience and achieve greater academic success.

A study conducted by Museus *et al.*, (Cox, 2013) indicates that students who come in underprepared for higher education are labelled “at-risk” based on their academic background, prior academic performance, and personal characteristics. Students labelled as being “at-risk” academically are said to lack prior knowledge of university expectations and find themselves having to make up for this knowledge. There is a further suggestion that students characterised as first generation students, (first in the family to attend university), are prone to academic failure and attrition.

With reference to the “at risk” process, Varsity College is one step in the correct direction. Additionally, the introduction of intensive and continuous intervention as suggested by Seidman’s (Tinto in Seidman, 2004/ 2006, p.1) model will enhance the process. Understanding that the students within the HCBPP programme may need more support, early intervention is more of a solution as there is already an early warning process.

- Early intervention would possibly occur even before students begin their studies. Within a South African context Summer and Winter Schools seem to have negative connotations. It is seen as a remedial school or course for those who have not passed or those who have done poorly during the semester. Hence, a more *developmental* module is suggested. The developmental module will have components of academic skills as well as the inclusion of Tinto's, (Tinto in Seidman, 2004/ 2006), three stages of passage in a student's college career. This should be a transformed summer school named "Summer Soak In" and winter school named "Winter Warmer". This will integrate the "bio-psychosocial" concept and will include collaboration with the campus Student Relations Manager and career advisor.
- Many discussions were held around the tremendous challenges students experience with English, whether as a first or foreign language. Necessary tertiary level skills required for students to be successful in academic writing, completion of assignments and tests includes understanding mathematical equations while being directly impacted by the student's language proficiency. In response to this, a "Writing or Language Centre" is the proposition. Here we will begin by offering every first year student a basic language proficiency test. Based on their scores we will offer them the opportunity to be a participant in the "Writing & Language Centre. Basic language skills, critical thinking, referencing, and plagiarism, as well as writing for publication will form the foundation of this centre.
- Motivated by the introduction of postgraduate studies at Varsity College, it is envisaged that this centre eventually evolves into a research centre where staff and students alike spend time with developing their research skills, academic writing, and ability to publish.

Continuous Intervention

Whilst being cognizant that early identification and intervention in terms of challenges either academically or otherwise is necessary in ensuring student success, it is equally important that after we have identified and intervened we do not abandon students and that continual support is offered.

In an article on News24 academic Andre Van Zyl quoted the CHE 2013 suggesting that "More than half of the students that will drop out of higher education institutions countrywide will do so during their first year" (Areff, 2015).

How do we retain our first year students and how do we ensure that they have an amazing first year experience? Van Zyl alludes to the nexus point between schools and university and that allowing students to transition between the two has been broken. This refers back to Tinto's stages in the life cycle of a student's college career. He further mentioned that "academic problems played a role, but so too did "life problems", like housing, finance, and food". This speaks directly to the adoption of the "bio-psychosocial" concept and the theory of Gestalt psychology.

In addition to the above, the creation of an environment with on hand visible and continuous support is indeed pertinent in ensuring success.

Over and above the readiness programme, a series of monthly “Success Seminars” targeted at the first years and aimed at addressing the challenge of transition together with elements of leadership is part of the continuous intervention.

Mentoring

Peer mentoring is a form of mentorship that usually takes place between a person who has lived through a specific experience, the peer mentor and a person who is new to that experience, the peer mentee (Wikipedia, 2015). Top students and students who volunteer to mentor will be recruited with the help of lecturers. They will be trained to provide support to students. This will be based on an assessment and referral process. Students will have a peer mentor available to assist in all aspects of their university experience. The process of ensuring that there is always someone available to assist is a means to success. This ensures that there is no gap in terms of student's communication of need. This peer mentoring process is one that will begin from the student's entry to Varsity College and will extend until course completion.

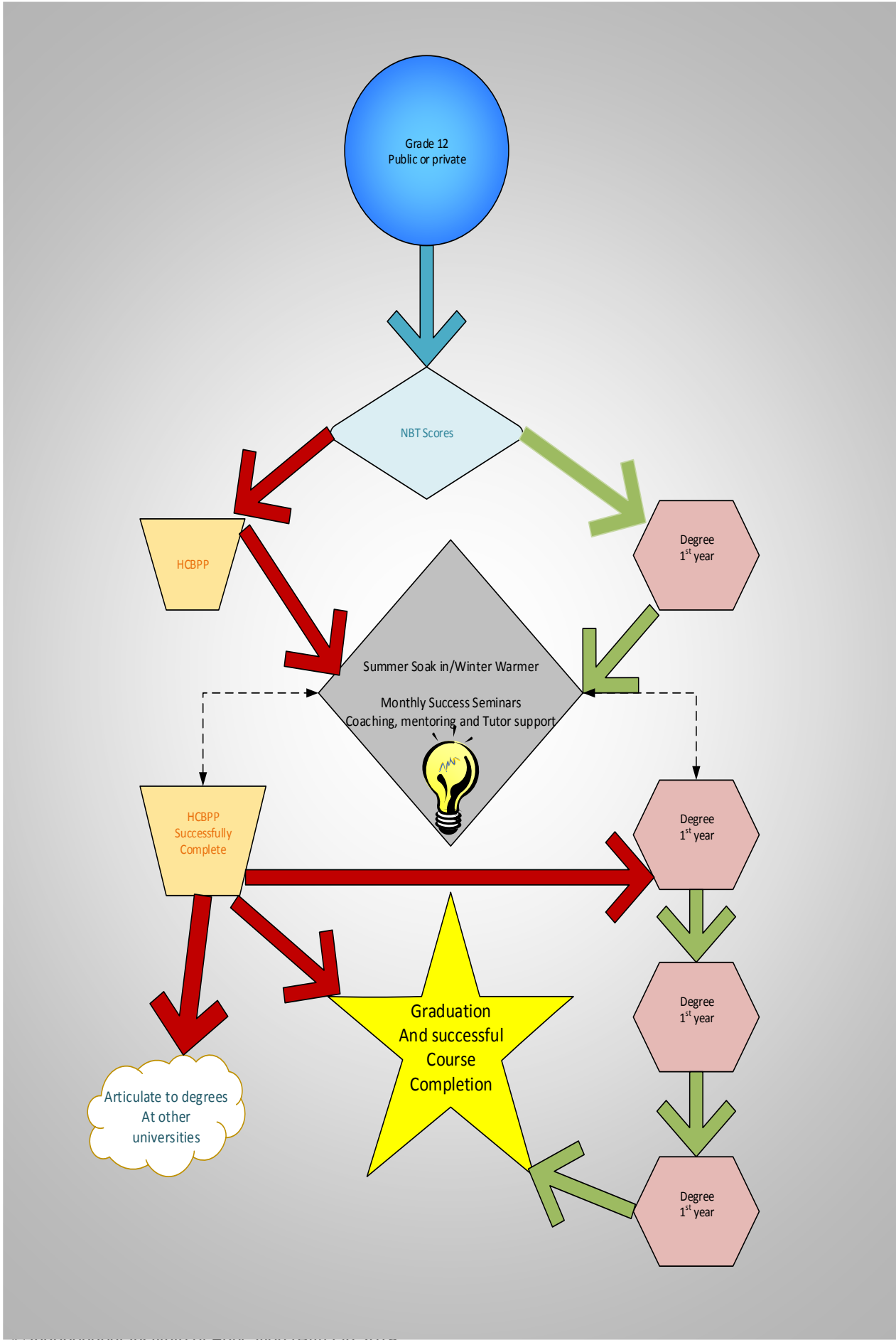
"All achievements, all earned riches, have their beginning in an idea." - Napoleon Hill

Conceptual Framework

To begin with, it is imperative to provide a definition of “conceptual framework.” To this end, Jabareen (2009) clearly defines this concept as “a network, or “a plane,” of interlinked concepts that together provide a comprehensive understanding of a phenomenon or phenomena”.

Being a part of a progressive institution of Higher Learning means that one should always be progressive in one's thinking. To proactively look at retention and to ensure academic success the phenomenon of the Summer Soak In and Winter Warmer has been the focal point of discussion. Once again referring to Seidman's retention formula the Summer Soak In and Winter Warmer is an academic developmental and university readiness programme. All first years will be given the opportunity to attend this programme and this will be their first step towards academic success.

This concept will include a week of academic development and university readiness before classes start and continuous “Success Seminars” throughout the year. The Summer Soak In and Winter Warmer will include; English in the academic environment, end user computing, basic accounting and numerical skills, referencing and plagiarism, how to research for information, leadership, and life coaching. The goal is to prepare students for university level study and thus is not credit bearing. The monthly Success Seminars will include topics such as, presentation skills, and interview skills.



The framework explained:

1. Grade 12 learners that have an interest in Higher Education will apply to attend university. Varsity College will request that they supply their NBT test results. Based on this result, students will be advised on whether they can articulate into a degree or higher certificate. All first years in higher certificate or degree will be requested to attend the Summer Soak In or the Winter Warmer based on whether it is a first or second semester intake.
2. All first year HCBPP or degree students will be invited to attend the monthly "Success Seminars".
3. They will be supported with coaching and relevant tutor support.
4. Students who successfully complete their 1st year degree programme will move on to 2nd year and so on.
5. Students who successfully complete HCBPP will be encouraged to articulate into a degree programme at Varsity College or they have the option of moving on to another university.

The curriculum of the readiness programme will include, but is not limited to, the following: Reading, language, and research, searching for information, writing for university, communication and public speaking, presentation skills, referencing and plagiarism, basic numerical skills, and accounting equation.

The first year "Success Seminars" will provide students an opportunity to engage with topics that are relevant and topical. This will be largely directed at immersing students into intellectual debate and conversation with their peers and their faculty members. Students will be given an opportunity to choose from seminars that will address a variety of topics and being student-centred, they will contribute to the topics chosen. Seminars will be in the evening and will be for a maximum of 25 students per session so as to ensure maximum interaction.

"Think left and think right and think low and think high. Oh, the thinks you can think up if only you try!"

Dr Seuss

Moving forward towards success

Monitoring and evaluation plays an integral role in the success and implementation of a project. According to Bartle (2011) monitoring is the regular observation and recording of activities taking place in a project or programme. It is a process of routinely gathering information on all aspects of the project. Evaluation is assessing, as systematically and objectively as possible, a completed project or programme. Evaluations appraise data and information that inform strategic decisions, thus improving the project or programme in the future.

Evidence-based responses provides valuable insights. Retention rates and successful course completion will continuously be thoroughly monitored and evaluated. This monitoring and evaluation process information may be used to improve this phenomenon and enable Varsity College and other brands within ADvTech to begin benchmarking. Varsity College is a progressive institution where change is the only constant. The abovementioned process of tracking “at risk” students with early identification, intervention, and continuous intervention will lead to increased retention and greater academic success among students.

Varsity College, Sandton will implement this pilot strategy. As an academic institution this provides impetus for further study, evaluation, and recommendations towards a leading strategy for retention and student success across Varsity College campuses in South Africa and other HEI's around the country.

In a country where poverty, HIV/Aids, unemployment, crime, etc. is a daily occurrence, we have an obligation to make a difference and turn this around. We can look at job creation, vaccinations, stricter or harsher punitive sentences or we can assist our youth by ensuring that they all have an education.

In the words of Nelson Mandela “*Education is the most powerful weapon which you can use to change the world.*”

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Seventh Annual IIE Celebration of Teaching and Learning

2015 Celebration of Teaching and Learning

Student support as impetus for efficacious engagement

Submitted by: Amos Wutawunashe and Irvine Mutsungi

How can we improve the success rates of students at our private institutions of higher learning? How can institutions assist students coming into the higher education space from an inadequate school system? How can these institutions cater for students with divergent backgrounds in an inclusive way? This paper seeks to pose these and more questions by looking at the role that student support can play in improving students' engagement and ultimately the throughput rate of private institutions of higher learning. The discussion ultimately intends to suggesting some mitigatory interventions that may assuage the impact of negative influences within HE.

Strydom, et al. (2010) quoting Kuh (2005) look at student engagement as focusing on two key issues. They posit that it encompasses, "the amount of time and effort students spend on academic activities and other activities that lead to the experiences and outcomes that constitute student success. The second is the ways in which institutions allocate resources and organise learning opportunities and services to induce students to participate in and benefit from such activities" (Kuh et al 2005: 9). Klem et al (2004) cite meaningful engagement with pedagogy and curriculum as predictors of student success. Engagement thus permeates through the affective and functional engagement of students in their course of learning. It therefore becomes apparent that student engagement and student support become inseparable as student support intends to enhance success for the student. This success should be broadly defined to go beyond the limited meaning of scoring high grades to achieving sustainable value in the process of learning and indeed completing that learning.

There are various areas of student support which include academic, financial as well as social support. Academic support is one of the many support systems that are necessary for students to attain holistic development as well as achieve higher success rates in their studies. In the context of this paper, student support is taken to mean all the support be it social, academic or financial which institutions offer to their students. The aim of the paper is to establish a link between student support and student engagement. It is our assertion that if the students are offered enough support it will enhance their level of engagement and ultimately the attrition rates will go down.

Academic support is the assistance given to students so that they cope with their academic work. We argue that this support is necessary so that the students are able to engage with academic work at the level dictated by demands and the dictates of higher education. We further propose that this academic support should cover information literacy, academic reading, writing, research as well critical thinking skills. The hope is that with support the student will eventually attain a high level of self-efficacy. Self-efficacy in this context is the confidence mustered by the students in their ability to perform the academic output expected of them (Wang, DC & Castaneda-Sound, C. 2008). The students should be able to perform at the levels demanded by the curriculum prescribed for them. However, for them to perform there is need for them to be able to engage with the material.

The concept of engagement needs further interrogation: Davies, Shalter-Bruening & Andrzejewski, 2008 state that there are three types of engagement; namely: behavioural engagement, cognitive engagement and emotional engagement. Behavioural engagement talks to the persistence, student's effort, participation and compliance with schools structures. This is measured by the lecturer or student self-reports. The cognitive component is about how the students feel about themselves and their work, their skills and the strategies they use to master their work (Metallidou & Viachou, 2007). The emotional component according to Skinner & Belmont (1993) is the students' feelings of interest, happiness, anxiety and anger during achievement related activities. Sciarra & Seirup (2008) define it as the extent the students feel a sense of belonging and the degree to which they care about their school.

The challenges for the lecturer and the student in the private education space within the context of student support and engagement are multi-faceted and include but are not limited to:

- How do they balance the emotional and cognitive demands of the learning process?
- How do they acknowledge and support the subjective contexts?
- How to attend to students' social relationships in the classroom.
- How to balance personal reflection with regular observations of their experiences as tools of fostering student-centred learning.
- How do they value awareness, personal growth and change as meaningful outcomes of the learning process?

This is where student support comes in. As alluded to above student support is at three levels: social, financial and academic. It becomes apparent therefore that there is a need to offer holistic student support. On paper and according to policy, the parameters of student support are very clear. Everyone has a clear understanding of what needs to be done and the necessity thereof. However, the problem seems to be implementation of the said support. There is a need to have support structures which seek to address the five challenges outlined above. In the South African private higher education space, for financial support, if the students or parents are not able to pay they are often referred to organisations that offer student loans.

The question that begs answering is therefore, is this support adequate, given the fact that the educational institutions themselves do not hold any sway with the said financial institutions?

The second question that needs answering is, are the institutions employing support staff who understand the complexities of the 21st century student and the myriad of challenges that students face?

While it is commendable that there are some support structures available to the students, is the support adequate? Is the support linked to the ability of the student to engage?

We argue based on observation and experience that there is big gulf between what is currently being obtained and the ideal. Often, there are people employed who are very good at providing social support. They counsel and refer students and, according to policy, they can only have one on one support for a limited number of sessions. After that they are expected to refer the students to outside experts. This is highly commendable given the multiplicity of social problems faced by students.

When it comes to student support there are librarians whose main domain is academic and information literacy. Also in the mix are the lecturers, heads of Departments and the respective programme coordinators. While they offer valuable academic support the question that arises is, are they well equipped to provide the support? Also, is the support they offer coordinated in a way that gives the highest possible return and help to foster a culture of engagement in the students?

Student engagement can be defined by two key components: first, is the time and energy the students devote to educationally purposive activities and second, the extent to which institutions employ effective educational practices to induce students to do the right things (Kuh et al 2005). Institutions often have control over the second aspect but can only at best have influence on the first element of engagement. The imperative becomes providing support to the student which enables them out of their own choice to devote energy and time to educationally purposive activities.

Ian Scott (2007) highlights the key challenges faced by higher education in South Africa. Some of the problems he highlights include:

- Very low pass rates (around 15% graduate in time);
- Participation rates of previously excluded Black African students around 12%;
- One in three Black African students graduate in time, less than 5% of this cohort obtains a degree;
- Students not adequately prepared in high school;
- Widening access and an increased demand for graduates in the knowledge economy lead to unprecedented levels of diversity and many first generation students.

The plethora of these problems necessitates the provision of student support to mitigate them. The approach to student support should be holistic and should be geared towards creating a student who is able to engage with academia at the three levels mentioned above. The undercooked student inherited by the higher education institutions from high schools is ill-equipped for tertiary education. Coupled with this, the ever increasing demand for knowledge workers means the higher education institutions can ill afford to ignore student support as necessary for producing a well-rounded graduate who cannot only engage with his academic work but can also grapple with the demands of the work world.

In order to engage, the student must be emotionally, social, academically and financially supported. Thus, student support has become necessary for student success. Key to this will be the identification of the drivers and conditions of success among undergraduate students. More importantly, it will allow institutions to identify interventions that will have an impact on student throughput and success (Strydom & Mentz, 2010). These then will need to be integrated into the support structures of the institutions.

Weimer, M (2010) proposes 10 ways that can be used to promote student engagement. She inter alia posits that;

- Enhance students' self-belief, i.e. students must believe they can learn and that they themselves are learning agents.
- Enable students to work autonomously, enjoy learning relationships with others and feel they are competent to achieve their objectives.
- Recognise that teaching and teachers are central to engagement;
- Create learning that is active, collaborative and fosters learning relationships;
- Create educational experiences for students that challenge, enrich and extend their academic abilities;
- Ensure that institutional cultures are welcoming to students from diverse backgrounds;
- Invest in a variety of support services;
- Adapt to changing student expectations
- Enable students to become active students;
- Enable students to develop their social capital.

A close look at the list reveals the centrality of providing student support as a means of fostering engagement. The support has to be all encompassing. Engagement and student support are inextricably interwoven. To ignore one is to ignore the other.

Conclusion

There is an evident relationship drawn from studies indicating a direct correlation between engagement and student support at various levels. Integration of such support systems without compartmentalising them provides a secure basis to attenuate the causes of attrition. Student engagement is therefore an essential ingredient in determining the quality and motivational levels of student efficacy.

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Seventh Annual IIE Celebration of Teaching and Learning

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When Collaboration Kills Creativity The Power of Working Alone

Submitted by: Alison Engelbrecht

Introduction

I am a horse for a single harness, not cut out for tandem or team-work . . . for well I know that in order to attain any definite goal, it is imperative that one person do the thinking and the commanding. – ALBERT EINSTEIN

Personal experience with students, theoretical delivery of material, being a member of the Student Support team, together with the introduction of the VCLearn space and readings prompted me to start investigating how personality types and collaborative learning impact on each other. I read *Quiet* by Susan Cain, which further encouraged me to continue with my observation to acknowledge different students, situations and learning environments.

The internet cloud is allowing education to take on a different cloak to the usual traditional attire. The “on line learning space” allows for a vast knowledge base to be easily accessible to a major proportion of the population. Smart phone apps have become a norm. These apps have created platforms which allow for innovative learning and teaching. In addition, the transferor of knowledge (the lecturer) is in the process of being “replaced” by the internet by the transferee. Google and Wikipedia are deemed as the ultimate knowledge base.

In contrast to Albert Einstein (as above) ‘Innovation – the heart of the knowledge economy – is fundamentally social’ writes the prominent journalist Malcolm Gladwell (Cain, 2013). The internet has offered millions of people the opportunity to share knowledge, express opinions and collaborate.

My question, based on the observations of my students over many years, has lead me to challenge the way in which I transfer knowledge to my students. The academic content has not changed radically, but the way in which it is presented and the personality make-up of the student has changed and will continue to evolve. These changes have enabled the learning and teaching space to be used innovatively in order to encourage the learning process to be an area of questioning rather than acceptance.

Based on my experience as an accounting lecturer, the first year cohort of students is generally a large one made up of students from various backgrounds, abilities and skills. ICE tasks, VCLearn, Student Portals, MOOC’s are some of the platforms used to add value to the teaching and learning experience. As lecturers, we try various applications and ways in which to present the material to the students. One of the applications is the online portals which are accessed by a student at their own convenient time allowing them the freedom of choice of time, place and contribution. However, students need to be “driven” to these online portals. They have to be given a tangible reason to participate in the online space, which is, in itself, another challenge to educator’s innovative teaching methods. ‘As most online educators know, creating virtual teams, and placing students into groups within the online learning platform, and providing assignment guidelines does not make cooperation or collaboration happen’. (Learning, 2012)

The lecture room scenario (face to face) and the contribution that students are required to make during the course of the study of modules require interaction, team work, participation and often collaboration. This often does not suit every student in the group. Introverted students can be seen visually and physically withdrawing from conversations, because the more vocal student/s (extraverts) 'take over' the conversation, added to which, the more introverted student may experience 'fear' of participating and being 'laughed at'. Often in the physical space of the lecture room, the creativity of students is 'killed' because of the nature of interaction, yet when the same student is able to contribute through the various individualised platforms, these very same students are often the creative, intuitive and academically sound contributors. This observation links back to the opening quotation from Albert Einstein.

As educators we need to ask ourselves what works most effectively in our particular educational environment. Group work or individual work? Lecturers, student support systems and academic content need to be monitored to best suit the group. Each group has its own dynamics. These dynamics and the personality make-up of the individual students should be considered when planning assignments, ICE tasks, VCLearn activities, projects and exercises. Lecturers need to allow for the verbally interactive confident student to reach their potential but simultaneously being appreciative that the quieter introspective creative student may not fit into the noisy excitement of collaborative interactions. These quieter introspective students often have valuable insights but are too afraid to offer them.

The scope of comment is generalised as I am using my own experiences of observation regarding investigating personality types and the learning and teaching methods which can be used to maximise both extrovert and introvert students potential as individuals vs collaborative learning and teaching methods. By identifying the naturally quiet, sensitive, serious, creative student vs the loud, confident, expressive student I would like to offer suggestions as to how to harness the strengths of both extremes to create an opportunity for academic, individual and collaborative learning in order that these strengths are not overshadowed or passed over as a platform for stretching and encouraging students' academic and life skills progress.

Relevant to the millennial students we are dealing with, who seem to have a better relationship with their devices than they do with human relationships. Varsity College is moving into the online learning space which allows for creative learning in an individualist environment yet at the same time allowing for virtual collaborative team effort. The question that will be posed is does this collaboration (virtual or face to face) kill creativity?

Groupthink vs Group work

“Groupthink occurs when a group makes faulty or ineffective decisions for the sake of reaching a consensus” (Hartzell, n.d.). “The New Groupthink elevates teamwork above all else” (Cain, 2013, p.75).

In Groupthink the participants are encouraged, in fact coerced, to agree with the majority viewpoint. If an individual disagrees or has an opposing view the group will usually use peer pressure to get conformity. In my opinion, Groupthink stifles individual creativity, spontaneity and ‘out of the box’ thinking in group members.

Primary school classrooms have usually been arranged in groups of desks, to enhance group learning. At secondary schools the process of group work is perpetuated as scholars are required to work together on projects and be assessed as a group. In tertiary education, many assignments require the effort of more than one person, the input of each participant is measured as a group. Individual effort is diluted into the group final output. Each of these scenarios requires group/ team work where Groupthinking becomes a way of life where the stronger more confident participants over-rule the quieter less assertive participants.

Personally, I do not have a problem with group work. Collaborative teamwork can be stimulating, offer a fun useful way to exchange ideas, manage information and build knowledge. Group work can be used to break the monotonous cycle of dealing with volumes of theory. Group work can be used for interesting discussions which can lead into retention of academic material. The danger lies in the Groupthink principle in that consensus may be acquired by the domination of one or a few of the participants to the detriment of the learning process.

Group work is not everyone’s ‘cup of tea’. We have all observed students in a group situation, who tend to sit back and let others do the work; they agree to group opinions, don’t offer opinions or thoughts of their own and often succumb to peer pressure. The Groupthink danger. This is definitely not what academic learning is all about. If we are building students futures we should be encouraging confident, critical, individualist thinking and problem solving. There is a space for group thinking and team work. It is a critical life skill, but it should not form the back bone of learning. Groupthink and working as a team are two different activities – both have merit as educational platforms. Groupthink and individual thought need to be balanced in respect to student dynamics, personality and academic requirements.

As in most aspects of life there are always exceptions to the rule. In the Varsity College arena we have the VCLearn platform which is encouraging 'electronic brainstorming' via the blogs option. In his article, Dave Plunkert refers to large groups outperforming individuals, and the larger the group the better (Plunkert, 2012). The anonymity of blogs and social networks negates the impact of group pressure allowing the solitary thinker to offer opinions and information in the safety of their own space. Dave Plunkert offers the opinion that "this is why the Internet has yielded such wondrous collective creations" (Plunkert, 2012). The exception to this can be cyber bullying.

Collaboration

"Collaboration in its simplest, and most understandable form, is getting individuals, who may or may not have similar interests, to work together in an organized endeavour to a satisfying and most appropriate group end" (Royal, 2014).

Groupthink and Collaboration are similar yet different. In a group environment it is hoped that all the individuals will feel a result which is satisfying, but this end cannot always be guaranteed. Collaboration creates another life skill which is so important to our students and our lecturers. This life skill also starts with the letter "C". Compromise! This can be difficult for individual group members. Compromise is the part of collaboration that makes groups more effective rather than just going through the working-together motions as in Groupthink.

Personality types

I would like to encourage lecturers to be proactive and sensitive to the different personality types to be found in the lecture room. Lecturers, in their teaching and learning space within and outside of the formal lecture space, are able to identify individual student's strengths and weaknesses. Add to this the customer service policy of the VC brand, a vital platform of delivery, as it gives each student (the customer) the acknowledgement that they are individuals, their strengths, values, responsibilities and accountabilities are part of the learning process. The teaching process must take cognisance of the different personality types (introverts vs extroverts) in the use of collaborative vs individual creativity. Proactive identification of the dynamics of the group and of individuals will offer lectures a diverse teaching platform where extroverts can be encouraged to listen, understand and acknowledge a fellow student's thoughts and views. The same can be done for the introverted student who needs to learn that their view point, understanding and explanations are vital to their progress and interaction and that they are able to express opinions and thoughts.

Many of our students 'live inside their own heads' completely oblivious to the life beyond their devices and the realistic stresses and strains of the responsible adulthood phase towards which they are heading. As an academic institution, and as lecturers we should ensure that our lectures model the social workplaces by the nature of the content together with the interactive responses required for solitary and team platforms. Assessments and assignments (including the ICE tasks) can be used to imitate the work environment students can expect which encompasses solitary and team efforts.

There will be students who do not function or are not comfortable within a social exuberant space. These very students have as much to offer academically and socially as do the extrovert, loud and vocal students. The introverted students may be overshadowed and reticent in offering contributions as they feel overwhelmed by the collaboration process. Are we as lecturers not perpetuating the problem by continually encouraging debate, interaction, conversation? Should we rather not be encouraging innovation, problem solving and questioning? Through solitary time, within their own heads, often students are able to offer contributions and understanding by coming to their own conclusions in their own time and space.

Learning should take place in collaborative spaces (online and face to face) and within personal solitary boundaries? Stephen Wozniak (co-founder with Steve Jobs of Apple Computers), in his memoir, *iWoz*, (Cain, 2013, p. 73) speaks of "Quiet midnights and solitary sunrises as the biggest high ever". Is solitude not perhaps a catalyst to innovation and better understanding? To an introvert the answer, in my opinion, would be YES! To an extrovert the answer, in my opinion, would be NO!

Solitude

It appears that solitude is out of fashion! Sitting quietly on a park bench getting in touch with one's inner self is a luxury most of us don't enjoy. Our student cohort is a gregarious animal. Business, education and some cultures are embracing the ideal of the New Groupthink. Groupthink, "holds that creativity and achievement come from an oddly gregarious place" (Plunkert, 2012). Most of us work in open plan offices as teams. "Lone geniuses are out. Collaboration is in" (Plunkert, 2012).

But there's a problem with this view. Research strongly suggests that people are more creative when they enjoy privacy and freedom from interruption. And the most spectacularly creative people in many fields are often introverted, according to studies by psychologists Mihaly Csikszentmihalyi and Gregory Feist (Cain, 2013). They're extroverted enough to exchange and advance ideas, but they see themselves as independent and individualistic. They're not joiners by nature.

Our Generation Y and Z student is not comfortable with their own company, yet they are solitary in groups. We see them sitting together, yet not communicating personally. The communication is taking place through their devices. Solitude, where a person is alone is indeed out of fashion, but solitude within a group is in fashion. This adjustment in the gregarious nature of our Gen Z student is as a result of the refinement of the World Wide Web. We still have the extrovert who will attain leadership acknowledgement in a public domain. We are also experiencing a rise in leadership of introverts who are creating their own niche through the anonymity of the World Wide Web. These introverts are able to collaborate in an online space without the pressures of the Groupthink mentality.

Ironically the early web was a way in which introverts, who craved the space for solitary interaction, were able to share knowledge and problem solve. Dave W. Smith, a consultant and software developer in Silicon Valley felt that “it’s a truism in tech that open sourced attracts introverts”. (Cain, 2013, p. 79)

Introverts and Extroverts

The success of lecturers and students is as much dependent on IQ, EQ, gender, race as it is on personality. Possibly personality is the most important aspect which can be ‘measured’ on the introvert-extrovert spectrum. We all fall within the spectrum with one aspect being more dominant than the other according to situations and environments in which we find ourselves. This spectrum influences the people we make friends with, our interactions and conversations, who we choose as partners, what we choose to study and follow as a career. This spectrum changes as we mature, learn skills and take our place in the environments in which we exist. Our students are diverse and ever changing, as are we as lecturers, nurturers and advisors.

So why is it then that most of what we do in the educational environment requires extroverted behaviour by the student and the lecturer? Acknowledgement is given to students who ‘stand out’, think differently, make a noise, are interactive, busy. What about those students who quietly get on with their studies making a difference without all the bells and whistles?

In 1921 the influential psychologist Carl published a bombshell (Cain, 2013, p. 10) of a book, *Psychological Types*, which made the terms *introvert* and *extrovert* very popular. Jung felt that “introverts are drawn to the inner world of thought and feeling and extroverts to the external life of people and activities”. (Cain, 2013, p. 10) Our academic arena is made of both these personality types across the spectrum. No one person is 100% of either end of the spectrum, but is made up of a mixture of introversion and extroversion with one type being more dominant. A number of persons are ‘closet’ introverts. These persons display gregarious, outwardly social persona yet when they can they revert to the quiet personal world of their own.

As lecturers we have to fit the modular material, our own personalities and that of our students into a semester of knowledge transferral, debate, and dialogue. A task which requires self-introspection and an awareness of the student personality make up. So whilst you as the lecturer are entertaining your student body you are also required to be psychologist, behaviourists and an educationalist. Well done on being a multi-talented, multi-tasking, amazing human being.

Find out at which end of the introvert/ extrovert spectrum you are: take the test at <http://www.thepowerofintroverts.com/about-the-book/quiet-quiz-are-you-an-introvert/>

Academic Delivery

Millennial students cannot be 'lectured' using the same tried and tested methods of delivery. Lecturers need to rethink delivery methods hence the encouraged use of the Flipped Approach. The teaching/ lecturing environment is changing rapidly and is dynamic. The chalk and talk approach to our mix of Generation Y and Z students will no longer engender participation nor interaction from these students. The current generation coming into the VC space is a multitasking, multiprocessing generation who are able to 'think on their feet' without having to retain too much information as this is at their disposal via the web. Lecturers need to be aware that the introverted quietly academic student is wanting challenges, has possibly already googled the answers to questions and is expecting the lecturer to challenge them on a level where they can express themselves without being ridiculed i.e. they can respond through the VC Learn space via a blog.

Yet the more extroverted student who is busy socially (physically and verbally) is wanting to be heard and given attention. These students have the concentration span of a flea as they do not need to absorb anything more than superficial information – the challenge herein lies in how to keep these students focussed.

Working/ lecturing collaboratively is not always the solution as students can either be withdrawn through lack of interest, fear of making mistakes or just couldn't be bothered. Hans Eysenck, an influential psychologist (Cain, 2013, p. 74), observed that "introversion concentrates the mind on the tasks at hand, and prevents the dissipation of energy on social and sexual matters unrelated to work." To an extent, this observation still holds true in that introverts do tend to concentrate on the task at hand in their solitude, however with the Generation Z aptitude for multitasking the latter part of Hans Eysenck observation possibly does not hold true any longer. Generation Z are able to multitask far more efficiently than previous generations. This, in itself, presents challenges to lecturers delivering content and material to diverse students with multiple learning abilities and personalities.

Deliberate practice (Malcolm Gladwell's 10,000 hours rule) is best conducted alone. To deliberately practice a skill requires concentration which can usually only be achieved in a solitary environment (Cain, 2013, p. 82). Our Gen Z students can have the TV on and their devices open and still be able to practice as they have developed the ability to be alone in amongst their social distractions. Deliberate practice does require working on tasks which are challenging to the individual on a personal level. Deliberate practice needs focus, dedication, patience and commitment – usually the traits found amongst introverts. The extroverts tend to allow distractions to divert their attention and they talk their way through the basic skills needed for the task at hand. “Teens who are too gregarious to spend time alone often fail to cultivate their talents because practicing music or studying math requires a solitude they dread” says Madeleine L'Engle, author of the classic young adult novel *A Wrinkle in Time*. (Cain, 2013, p. 83)

At a tertiary level we are moulding the aspirant future generation of entrepreneurs and employees. As such, we have a secondary responsibility to impart not just academic material but social skills which will assist with the transition from academic to practical. Whatever the personality type of our students they need to be equipped with the ability to take ownership of their education (academic and social). We as educators need to reflect and impart the requirements of the business community. Not only do the students need the knowledge, they also need the skills to use this knowledge to interact positively in a work environment. Whether this means as a solitary introvert or a team player extrovert the social skills required will impact on the transition into the work place.

Learning and teaching thoughts

I hope to give lecturers “food for thought” when planning and delivering lectures. Clearer focus on ICE tasks and application of theory learnt in lectures. Lecturers are encouraged to seek opportunities to expand their teaching and learning skills, being innovative in the lecture and outside of the lecture. This impacts the student VC experience which will encourage interaction, introspection, involvement and lifelong learning which was engendered through opportunities accessed during their academic path. Collaboration features highly in a number of modules where students are encouraged to work as ‘teams’ or in groups or together. This can often be a distraction or a demotivation for students who do not need the energetic hype of collaborative tasks.

Is there a “novel” revelation to be experienced?

No!

Moving more and more into the online space for learning the personality type of students needs to be used to full potential to enable this online learning to be effective. Our Generation Y and Z students are not necessarily the physically social persona that they are often thought of. They are social via cyberspace. Therefore, the theme of collaboration for learning and teaching could impact negatively on our current and upcoming cohort of students, unless lecturers are aware of possible negative effects of collaboration, diversify and adapt their lecturing techniques.

As an accountant, I have often been frustrated and annoyed when input and conversation is required for problem solving. I prefer to look at the problem, think about the problem and respond usually in writing rather than verbally. Lecturing accounting I have noticed a similar trend in the lecture room, where an activity is required and a number of students choose to work on their own and generally (in accounting particularly) have produced better assignments, exercises, ICE tasks when required to work on their own. Frequently, students have indicated that they are frustrated and annoyed and inconvenienced with collaborative work and they find that they (the more introverted student) are restricted in their input as they are talked over and ignored.

I would like to encourage lecturers and Student Support to ponder on how teaching and learning can be used to encourage diversity in personality, to compliment learning life skills alongside academic skills. Lecturers are encouraged to plan their presentation of academic material around the introvert and extrovert students and use this as a complimentary platform to learning to ensure that collaboration does not negatively impact on the learning process. As a deliverable of student support I would like to encourage continued research into learning and teaching methods which assist students seem to better manage in the VC environment. In your environment, who manages more efficiently with the learning processes, introverts or extroverts?

I encourage lecturers to use individual student personality to improve quality educational delivery by accessing the skills of the Generation Y and Z, who are typically device focused and literate. This leads to students being alone yet communicating through their devices and the various social platforms. This changes the manner in which the traditional lecturing takes place. Group work/ team work/ collaboration is not necessarily the way to go in a physical environment, but it could be the way to go in an online space.

Outcomes of the presentation

- What is the personality make up of your group, and individually?
- How can you adapt your methods of delivery to suit the academic material and the student to maximise learning experience.
- The relationships between lecturer and students, students and students and peers is vital to the overall enjoyment and positive outcomes of what we do as educators.
- Having knowledge of your own personality type, knowing your students and knowing your peers is enabling. Rather than being forced into a collaborative environment which could create confusion, annoyance, impairment of creativity, allow the different students and yourself as an educator to acknowledge your introversion/ extroversion to be used to maximum benefit.
- Encourage and empower introverted students to explore their abilities and skills, encourage extroverts to truly listen with an open heart and head and give someone else a platform to hold an opinion and/ or to have input.

What have we learnt from this superficial research?

Introverted students respond, interact and participate in an online space far better than they do in a lecturer room environment which is noisy and distracting. As an educator I enjoy my gregarious and participatory students as much as I enjoy the shy, gentle, autonomous ones. Some students are single minded, others are able to explore on multiple levels. Forcing them to collaborate on tasks, assignments or exercises often (in my opinion and experience) has a negative impact on both introverts and extroverts. They get frustrated with one another which leads to tasks not being accomplished responsibly and outcomes not being realised.

I have learnt to enjoy the diversity, the passions of each group/ student. Quieter introverted students respond positively to activities and challenges when allowed to be themselves without being 'bullied' by peer pressure.

Conclusion

At least a third of the world wide population (Quiet, Susan Cain, Penguin Books, 2012) is on the introverted side. A vast number of historic leaders and people who have caused world changing events have been introverts. In our lecture rooms, therefore, a third of our students will be introverts, who have 'hidden talents', who could be lost through the collaborative activities and academic modes of delivery. Lecturers need to be aware of the creative talents that are untapped within their academic environments and to use these creative, introspective students to draw out a sound academic experience for all students by using the skills and talents of both introverts and extroverts. By insisting on collaboration some of the students' creativity and natural skills could be sacrificed.

Knowing your students and adapting academic tasks, delivery of theory and professional relationship developed with the group and individuals is supportive to academic success for both lecturer and student; success not being achievement of distinctions. Rather the proactive buy in of the student to the academic process. As lecturers and as academic institutions we are faced with a diverse group of students all placed into one environment for an academic outcome. The way in which this diversity is used will significantly contribute to the successes of our learning and teaching methods. Different cultures have different expectations, and in some cultures introversion is encouraged in a public domain vs other cultures encouraging extroversion. Gender, academic ability, values, beliefs, religions, home environments, etc. all impact on the recipients of our learning and teaching. Therefore, as a practising educationalist we need to be in a position where we are aware of all the diversification and challenges that create the quiet vs noisy, silent vs interactive, individual vs collaborative students.

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Seventh Annual IIE Celebration of Teaching and Learning

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Stories and Theories: What learning are we missing?

By Amanda Cox

Introduction

What is learning?

The purpose of this paper is to challenge what it means to learn. I propose to do this through personal learning stories and adult learning theories. I believe that if we broaden our perspectives and challenge our assumptions about what learning is and about how learning happens, it is very likely that we will begin to change the way we facilitate learning for our students.

An academic environment is very focused on outcomes: assessments, results, and formal qualifications. However, that is not the only learning that is taking place. By focusing only on results, we can easily miss other important learning, in our own development and for our students. If we only focus on the end result, paying no attention to the process of learning, we see only one aspect of learning.

Motivation for the topic

My motivation for the paper stems from my studies in Adult Education which have challenged and enlarged my thinking about learning and about myself as a professional. As a relatively new discipline, Adult Education is often misunderstood as adult literacy, which is just one small aspect of adult learning. Adult Education is about how we learn as adults. This refers not only to formal learning as in schools, colleges or universities, but also non-formal learning, informal learning and incidental learning.

Theories on how adults learn can be insightful and practical for understanding personal professional development and for the way we facilitate learning for our students. These theories can be applied directly to the way we learn and grow in everyday life and in our professional lives. Theories are like models for understanding the complexity of learning and as Wenger (1998, p.3) says: "Each Learning theory emphasizes different aspects of learning and each is therefore useful for different purposes."

However, theories can be difficult to conceptualise, while stories are much more helpful tools to make meaning of life. We all relate to stories. Ellis & Adams (2014, p.255) say: "...telling and listening to stories and comparing our stories to those of others are how we learn, cope and make our way in society."

So, in this paper, I will introduce some adult learning theories by telling three of my personal 'learning stories', then relating each one to a different adult learning theory. I will then discuss one more learning theory, making some connections to the three stories, as well as using it to explore how we can apply and make use of these ideas in the learning and teaching space. My hope is that by sharing the ideas, they may become helpful tools to better understand the way we learn, because the way we learn and the way we understand learning, affect the way we teach.

Story 1: A Student Story - “Calculus 1”

My first story took place as a first year university study at the University of Natal Durban, as it was then known. If you look at the transcript I received for my Bachelor's degree in Science, you will see that I achieved 76% for Calculus 1. Of course this is a really good result, but if we only focused on the end result, we would miss the main message of this story. The transcript I received when I graduated in 2013 from the same university for my Masters degree tells a bit more of the story. Now known as the University of KwaZulu-Natal, the transcript reflects all the results including failures, deregistrations and supplementary exams. On this transcript you will see the first result for Calculus as: “48% Supplementary exam granted”. This result starts to unpack the true story.

The academic leap from school to University was huge. I had always been academic at school, worked pretty hard and managed to do reasonably well. This jump was ‘off the charts’ – I felt as though I was way out of my depth, in terms of the sheer quantity of the work but more than that, the difficulty of the subjects, especially Calculus. I remember thinking ‘There is no way I can ever understand this work – it is just too complex’. I also remember spending many first semester lectures daydreaming about what I could do the following semester when I failed.

Surprisingly, I managed to pass all my other subjects in 1st semester, but achieved 48% for Calculus. I had to write the supplementary exam in January the following year. I continued to second semester before passing 1st semester – and passed. Then, in January I had two weeks to study for the supplementary exam – and studied solidly for that time and this is when I achieved a first! This was way beyond my expectations and beyond what I had thought was possible.

What did I learn? Well, the obvious answer is that I must have learnt some calculus, most of which I could probably not do today. I learnt a much more important and enduring lesson - one that stays with me still today. I learnt about the ability of the brain to stretch, grow and develop way beyond what I thought or expected it could. I also learnt to ‘fail’. It was the first time I had ‘failed’ a subject, test or exam. I learnt that failing an exam is not the end of the road or the end of the world, but just a step on the journey.

How did I learn? Let's take a look at Incidental Learning.

Theory 1: Incidental Learning

*Incidental learning is defined as a **byproduct** of some other activity, such as task accomplishment, interpersonal interaction... or even formal learning.*

(Marsick & Watkins, 1990 as cited in Marsick & Watkins, 2001, p.25)

This sounds like the learning that took place in this story. In the process of my formal learning, a byproduct was learning about our capacity to develop, stretch and grow in cognitive ability.

Marsick and Watkins (p.25) say that *“incidental learning almost always takes place although people are not always conscious of it.”* In other words, in most things we do, incidental learning is taking place. By its nature, incidental learning is very difficult to apply, make intentional or plan for, but there are things we can do to foster environments which are more conducive to positive incidental learning.

“Incidental learning takes place, wherever there is the need, the motivation and the opportunity for learning”. (Marsick & Watkins, 2001, p. 28)

In my story - a formal learning environment, I had the need, motivation and opportunity to learn. Likewise, our students are in a formal learning environment, with the need, motivation (some of them, some of the time) and the opportunity to learn. Whatever they are learning through the formal students, it is most likely learning many things incidentally.

But how can this type of learning be fostered? Marsick & Watkins (2001) propose three triggers that are likely to enhance incidental learning. They are:

- Critical reflection of knowledge and beliefs;
- Proactivity on the part of the learner to actively identify options;
- Creativity, to encourage a wider range of options.

We can be intentional about the environment and opportunities we create in our classrooms, including creativity and critical reflection in order to increase the likelihood of positive incidental learning taking place.

So we need to ask ourselves questions like:

- What are my students learning incidentally from the learning environment I create in my classrooms?
- Are they learning that success is only about good results and getting perfect scores first time around?
- Are they learning that it is ok to get things wrong, to make mistakes and that in the ‘failing’ and yet getting up to try again, can be the deepest learning?

Story 2: A Teacher Story - “The perfect example”

My second story took place when I was teaching Adult Literacy (ABET Level 4) in the early 2000's. One of the assignments required that students write an essay (draft 1), which was marked for correction and feedback, and then a final version written and submitted.

One student struggled with the concept of drafts. One day she said to me: ‘Ok, now I get it - the first time it was always wrong and the second time it is right’. I realised she didn’t quite understand the reasoning for doing the first draft or the process of writing. I wanted her to see that the second one was a development and progression of the first. I thought of a good example and explained it to her like this: Just like the process of preparing to write a message to a friend in an expensive birthday card – you don’t want to mess up the card, so you practise in rough and work on improving the message until it is just right. Then, when you are satisfied, you write it neatly in the card. This was a light-bulb moment for her – the process of drafting an essay now made sense to her – and it is one of those moments a teacher cherishes, where the penny drops and the student’s face lights up and you know you’ve hit the nail on the head.

The problem was... I thought I had discovered the perfect example... until I tried it on another student – who looked at me blankly. In his culture and context, that example was meaningless, while to the first person, it was a light-bulb moment.

What did I learn? Each teaching situation is unique. Although you can often apply something from one context to another, it does not necessarily work. There is not a fixed formula. Teaching is an art and a skill and a continual work in progress. If I had heard that information in a theoretical or classroom context, I might not have even paid attention to it, but through my personal experience, that lesson has stuck with me.

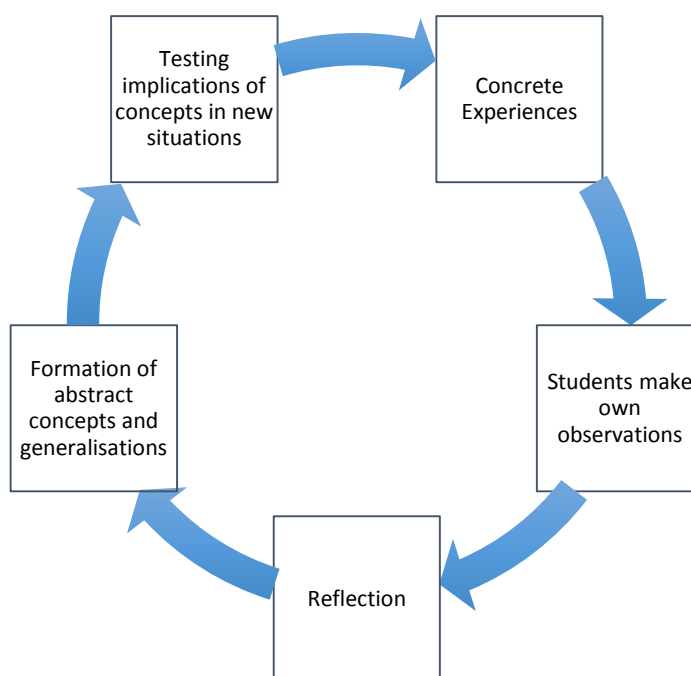
How did I learn? Let’s take a look at Experiential Learning.

Theory 2: Experiential Learning

Experiential learning is a theory about how we learn through doing, through action, through experience. It is precisely because we learn by experience that students are sent on ‘experiential learning’, or that there are modules like WIL (Work integrated learning).

Kolb (1984) as cited by Sutherland, 1998, pp.82–83 defines experiential learning as: *“The process whereby knowledge is created through the transformation of experience.”* My experience was how I learnt this fundamental but important lesson.

The model below, by Kolb and Fry (Fig 7.1) (cited in Sutherland 1998, p.85) is useful to understand the process of how we learn by experience and demonstrates a learning cycle of action, reflection, generating new ideas and then trying them out.



In my story, I had a concrete experience of finding an example that made sense to someone. My observation and reflection led me to some assumptions which I tried in a new situation. A new concrete experience took place, once again bringing new observations and reflections. This illustrates the cyclical nature of experiential learning.

We could apply this model to our classrooms, creating experiences in the classroom that give students opportunity to make their own observations, provide opportunities for reflection on the experience and then test the implications in a new situation.

We could also use this model as a tool to understand our own process of learning and growth as educators. We can be students of our own teaching, making observations about our classroom experiences, reflecting on them (like we do when collating our portfolios). From those reflections, we can decide on new actions to implement and then, in the following year, put those plans into action, creating an ongoing learning and development cycle.

Story 3: A Reflective Practitioner - “Becoming a VC Lecturer”

My third story is a few anecdotes from my journey as a VC lecturer, describing lessons I have learnt and the ways I have become more confident and competent in my role as a lecturer.

I remember early on in my journey as a VC lecturer, gleaning ideas from other more experienced lectures. The most memorable of these was when Bridget Farrell shared an activity she used in her classes. I took her idea, adapted it for my class and it was very successful. Learning happened by a shared idea being adapted and applied. I also remember a number of years later, passing on the idea to another lecturer. This was a fairly informal process of learning, but effective nonetheless.

I have also been able to learn from peers and colleagues from the more formal process of peer reviews. Although I don't particularly enjoy having a colleague watch and critique my lesson, I have found the reflection and learning from these experiences helpful. A number of years ago, I was told that Louise Underhill would be doing my peer reviews. I was not ecstatic about the idea. I respected her as an authority figure but was rather intimidated by her and it was a bit daunting to have Louise watch one of my lectures.

In hind-sight, the reviews I had with Louise over two years were probably the most helpful and constructive of all the reviews I have had. I gained insight into one of my strengths as a lecturer, which I had never recognized myself. During my follow up meetings with Louise, I realised how much she liked to mentor people as she liked to get the negative issues over first and focus on the positive. The insights I gained from my peer reviews with Louise have encouraged me to continue to develop my areas of strength. I can count myself privileged to have received this mentoring from such a respected and experienced educator.

Another way I have learnt is from difficult classes of students. One year, a few years into my VC lecturing experience I had a particularly challenging class. As the lecturing relationship with this class worsened, Louise found a lecturer who could take over the module from me, and I was thus given the choice to give up this module.

It was not easy to relinquish a module half way through; as I am not someone who gives up on things easily and it felt like I had 'failed'. One thing that helped me to pull out of the class and let someone else take it, was when Louise shared her experience in her teaching career where there had been a class she could not work with and needed to 'give up'. Suddenly it wasn't such a personal thing, when I realised that this was an experience others had been through.

The lecturer who came to my rescue in that situation was Mel Hall. He had more wisdom and experience as a lecturer and managed that class very well. Through the discussions I had with Mel and other staff around the time of taking this class, I learnt some lessons in managing difficult classes. Although I could not practise his ideas in this class, there have been other classes that have been difficult. There is a class I have had this past semester that I have not found easy, but I have been learning ways to respond to them differently and work with them in a more productive way. They create a learning opportunity for me to grow and develop my emotional intelligence as I have needed to explore other ways of interacting with, and responding to different people and different classes.

What have I learnt in my journey as a lecturer? In all these stories there has been the common factor that learning has taken place through colleagues. We are a community of professionals doing the same work and interacting with each other in both formal and informal ways and in that, there is learning.

To contextualise how I learnt, this paper will consider Situated learning or Communities of Practice.

Theory 3: Situated Learning/ Communities of Practice

Wenger-Trayner (2011) defines communities of practice as follows: “A *community of practice is a group of people who share a concern or a passion for something they do, and learn how to do it better as they interact regularly.*” In other words, learning is social. We learn in the communities in which we work, from the people we work with. Wenger (1998, p.8) challenges our traditional notions of learning and supports the notion of learning in social contexts:

For many of us, the concept of learning immediately conjures up images of classrooms, training sessions, teachers, textbooks, homework and exercises. Yet in our experience, learning is an integral part of our everyday lives. It is part of our participation in our communities and organizations.

Through participation in a community that practises something (like teaching), we learn from each other. Experts, or those more experienced, pass on ideas, insights or exercises that have worked for them in class, and new-comers try them out. Peer reviews are a way of participating in a community of practice where someone else views your lesson and gives you ideas and insights that you might not be able to see. Through support of colleagues or peers, one is able to learn lessons about difficult classes.

As Wenger (1998, p.86) says: “Communities of practice can be thought of as shared histories of learning.”

Adult Learning Theories

Through some of my learning stories, I have introduced some adult learning theories, namely:

1. Incidental Learning: Learning as a byproduct of some other activity;
2. Experiential Learning: Learn through experience;
3. Communities of Practice: Learning in and through colleagues.

One more theory is worthy of mention and can be related to the stories I have told. It is a theory I introduced in my presentation in the 2013 Teaching and Learning conference.

4. Transformative Learning theory.

Transformative Learning Theory (developed by American Adult Education theorist Jack Mezirow) is about challenging our underlying assumptions and coming to understand and make meaning of experiences through changed or expanded assumptions.

Cranton (1994, p.26) describes Mezirow's theory as:

"We interpret our experiences and the things we encounter in our own way; what we make of the world is a result of our perceptions of our experiences. Transformative learning, then, is a process of examining, questioning, validating and revising these perceptions".

In my first story, the views or assumptions I had about my abilities in the first few weeks and months of tertiary study was that I was attempting to learn something way beyond my capabilities – that I had reached my ceiling and that these concepts were just too difficult for me to grasp. Due to my tenacity to never give up on things I have started, I persevered through the year, worked at the subject, did not quite 'make it' and continued to work at it, until I finished that year having passed the subject well. The process of learning brought about a change in my assumptions. My changed assumptions could possibly be what in Transformative Learning Theory is called a '*perspective transformation*' – learning that results in underlying or taken for granted assumptions being changed (Mezirow, 1991).

Perspective transformation is the process of becoming critically aware of how and why our assumptions have come to constrain the way we perceive, understand and feel about our world; changing these structures of habitual expectation to make possible a more inclusive, discriminating, and integrative perspective; and, finally, making choices or otherwise acting upon these new understandings. (Mezirow, 1991, p.167)

Another concept of Transformative Learning Theory is '*critical reflection*'. This is reflection which goes beyond simply remembering an event or reminiscing, but gets to deeper levels of questioning an event, experience or belief.

Mezirow (1991) talks about three types of reflection:

- Content Reflection (Asking "What" questions)/ 'What concepts am I teaching?'
- Process Reflection (Asking "How" questions)/ 'How do I usually teach these concepts?'
- Premise Reflection (Asking "Why" questions)/ 'Why are these concepts important? Why do I teach them in this way?'

Premise reflection gets to the heart of critical reflection, questioning not just the content of learning or the process of learning, but questioning of underlying assumptions. Critical reflection can have many applications for us as professionals, both in using activities for students to engage with concepts in the classroom, but also for us to ask ourselves about our practice. I often use these three questioning words as tools for students to think about their modules or to reflect on their learning.

In my second story I had to challenge my assumptions about what it means to teach, realising that it was a practice that is both a skill and an art. If it was possible to come up with 'perfect examples' that applied to all contexts, that would make teaching a lot easier. One of the steps in the experiential learning cycle is reflection, which at times might be critical reflection.

In my third story, there were times as a lecturer where I have had to critically reflect on some of my underlying assumptions about what learning is and how it takes place. I have needed to change some of my assumptions about styles of learning being different for different people.

Application and “take home” messages

So, what can you take away from this? My hope is to accomplish three things for the delegates through this paper. The first, I hope I have already achieved, which is to increase awareness of other aspects and levels of learning and a fuller understanding of the field of Adult Education.

The other two objectives will require some intentional work on your part after this talk is over – you can think of them as challenges.

Challenge 1: What are your learning stories?

The first challenge is to identify and write down your own learning stories. You can get started with this, by asking yourself some of these questions:

- What things have happened in my life that I have learnt a lot through?
- What lessons did I learn during my time of studying a formal qualification?
- What was my transition from school to university like? What did I learn? What did I find challenging?
- What was my transition into the workplace like?
- What did I learn in my tertiary studies, or in my life, that might help or encourage my students?

Once you have written down some of your stories, tell them to your students. You might be surprised at the contribution it might make to their lives. We all relate to stories. We go to movies and watch television to watch stories unfold. They inspire us, encourage us, and entertain us. We can learn from other people's stories. Just MAYBE, your learning story can encourage, inspire or motivate some of your students.

Challenge 2: Becoming Critically Reflective Practitioners

The second challenge is to become more critically reflective of your practice. If you are prepared to do this – if you are prepared to accept the challenge, I am going to make it very practical and also very personal, by accepting the challenge as well. So, if you want to join with me, if you are prepared to dare to hold a mirror up to your practice – to see what it 'looks like' from the outside, make an audio (or video) recording of one of your lessons – then play it back to yourself afterwards and listen to what you sound like. I am very sure we will find some surprises – we will hear what we really sound like to our students – tone of voice, turn of phrase, little annoying phrases we possibly repeat without realising it.

While listening to or watching your own lecturing, use the reflective questions from Transformative Learning Theory, the WHAT, HOW and WHY questions, to ask yourself about your practice. Here are some sample questions you could ask yourself:

- What am I learning, while I am ‘teaching’?
- What are my students ‘learning’ informally while they are ‘learning’ formally?
- What learning environment am I creating for incidental learning?
- How are my assumptions about learning and teaching influencing my classroom experiences?
- How can adult learning theories challenge me with new ideas to do ‘teaching’ differently?
- How can I use my learning stories to help students in their studies and in their lives?
- How can I use what I learnt in my tertiary studies, or in my life, that might help my students learn?

I am confident that those of us who are brave enough to try this will find a useful tool to change, grow and learn as a professional which will hopefully take our practice to another level.

Conclusions/ Recommendations

Is formal acquiring of knowledge, in order to pass exams the only learning that is happening in our classrooms? You already know that my answer to that question is a definite “No”. Learning is happening all around us, all the time. My formal qualifications have enabled me to work as a lecturer. However, those formal times of learning have taught me a lot more than subject content. I have learnt through formal studies about our brain’s ability to stretch beyond its current capacity; about how much time and hard work is necessary to achieve a long-term goal. I have learnt through practice that each situation is different and there are no perfect examples. I have learnt, from being part of this community, how to develop my skills. It is not only my formal qualifications that have enabled me to become competent and confident as a lecturer – it is also the informal learning that has contributed to that.

If this is the ‘what learning is’, and ‘how learning takes place’, then what are the implications for us in the classroom context? How do we facilitate other types of learning for our students? This paper was not intended to answer these questions, mostly because for each of us the answers will be different. Just like I learnt in my story about “the perfect example”, what works for one student, does not work for another student. Likewise, what works for me will not be the same as what you need for your classroom. That is one of the dynamics of the skill and the art of the teaching profession.

I closed with two challenges: firstly, to identify and write down your learning stories and use them in your classroom contexts and secondly, to audio tape one of your lectures and then play it back, while asking yourself critically reflective questions. I hope my stories, overview of adult learning theories and my challenges have given you some tools and some motivation to continue working on and developing your skill and art as a practitioner.

I end with a quote from one of my favourite South African educators, writers and thinkers, Jonathan Jansen:

Distinguish between two things in life: - the crisis and how you respond to it. The crisis is not the problem. (Jansen, 2012, p. 120)

I believe it is in the process of learning and responding to situations, crises and new encounters in our classrooms and in our workplaces, that the most valuable and enduring lessons as professionals can take place.

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Seventh Annual IIE Celebration of Teaching and Learning

2015 Celebration of Teaching and Learning

Changing the face of first year accounting

Submitted by: Henry George Booysen

Introduction of the topic

This research is an exploratory study to investigating if the use of computer technology will enhance the academic performance of first year accounting students and can the general accepted accounting practise be taught with the aid of accounting software?

Accounting is a subject perceived by most students to be difficult, if it could be categorised it would fall into the same category as Mathematics and Physical Science. As a result, many students opt to study other business related subjects to avoid the challenges of Accounting (Young, 2008). Today's student describes accounting as boring. It is therefore imperative to change the mind sets of students who wish to pursue a career in accounting but who are fearful of the successful completion of the subject (Lusher, et al., 2012).

Research by Albrecht & Sack (2000) showed that most accounting courses had been taught using the same methods that were used over the past half-century and that most accounting students would chose a different major if given the option. The authors also went on to state that there was a shortage of qualified accountants mainly as a result of the fact that students are reluctant to enrol for a course in accounting. This has created opportunity for accounting educators to evaluate the course curriculum and the structure of course. It also leads to evaluate the way the modules are structured for accounting at most universities which causes students to become disinterested in the course.

In order to improve and enhance millennials's learning Raines (2002) recommend that computers be used in the classrooms as they are part of the digital age. As most businesses today use computerised accounting packages it would also better equip students when looking for first time employment. (Chetty, 2011)

Although many accounting lecturers may say that students need to understand the fundamentals of the General Accepted Accounting Practices before moving to computerised accounting it is the view of the researcher that accounting principles can be taught with the use of computer technology (Abdel-Azim, 2006).

Motivation for the topic

Accounting students at universities are presently being taught manual accounting methods. However, most companies today are using computerised accounting software to generate financial statements in order to comply with the International Financial Reporting Standards. One of the main purposes of higher education is to equip students with skills to be used in the working environment. (Chetty, 2011).

Boyce (1999) urges accounting students to be equipped with a range of technology skills that are relevant to their discipline and are required by professional bodies and employer, in order to make them more employable. This is supported by McMahon et al. (1999) that students need to increase their computer skills so that when they graduate they are able to add value to the business world.

Although higher educational institutions are offering computerised accounting as an additional subject in business degrees, the emphasis still remains on manual accounting as opposed to the integration of computerised and manual system (Ballantine, et al., 2007). This way of teaching students makes them very frustrated that they have to relearn the accounting processes when they do computerised accounting. It is therefore imperative that that theoretical accounting and computerised accounting be combined (Ballantine, et al., 2007).

Research Question

- Will students learning be enhanced by combining computerised and theoretical accounting in first year classes?

Objective of the research

The objective of this research is to establish if students will benefit from the integration of computerised accounting and manual accounting and if such an integration will enhance their accounting knowledge.

Literature Review

In the late 1980's it was recommended by many accounting professionals that technology should be used as an alternative teaching technique. As we are in the digital age and students are comfortable with the use of technology, therefore introduction of accounting software to learn accounting would not pose difficulties for students.

A comprehensive study was started in 2001 by The United Arab Emirates (UAE) University, in the College of Business and Economics, where they began introducing technology into their accounting classrooms. This transformation turned their classrooms into an active learning environment. Students were encouraged to use computers inside and outside of the classroom. It was reported that students who used computers were more engaged in the learning processes. Students reacted positively to the changes made in the accounting classes, and the results showed by 2005 there was a significant improvement in student performance. Students also reported higher satisfaction levels on their evaluations of the accounting courses offered at the University (Abdel-Azim, 2006).

In the research done by The United Arab Emirates (UAE) University, the University introduced computers to the classroom and evaluated the results over a period of time. The findings of this research showed that with the introduction of computers, students could engage more in the classroom. It could be said that some students only engaged in this type of learning is because the university used computers in the classrooms.

Research done by Pedrosa & Costa (2012) in their paper titled Computer Assisted Audit Tools and Techniques in Real World: CAATT's Applications and Approaches reports that students in an auditing class who used auditing software to complete audits showed a significant improvement in their results and findings in comparison to the students that did not use any auditing software.

From the above two research projects undertaken it can be concluded that students do respond positively to the introduction of technology in the classroom.

Furthermore, research done by Lusher, Huber and Valencia (2012) obtained the same results as Pedrosa & Costa (2012) and Abdel-Azim (2006) where student performance was enhanced by the introduction of technology in the classroom.

The difference in the research done by Lusher, Huber and Valencia (2012) and Pedrosa & Costa (2012) was that the research done by Lusher, Huber and Valencia (2012) divided the class into a treatment group and a control group. Here, the treatment group were given computers to use in the classroom and the control group were not. Both groups were taught the section of the balance sheet and income statement. In the control group, students were taught in the traditional "pen and paper" classroom method, with all learning activities, including in-class projects and examinations being completed using "pen and paper" and calculators. The treatment group were taught the same content but with the introduction of computers in a computerised classroom. Students simultaneously learnt the various accounting concepts and principals through practical application in an environment that simulated the workplace. Spreadsheets were used to do all calculations relating to the income statement and balance sheet, and students also completed examinations, homework, group projects, and in-class assignments on the computer. The research done by Lusher, et al (2012) showed that the examination results obtained from the group that were taught with computerised accounting were substantially higher than that of the group that were taught in the traditional manner of "pen and paper".

The research done by Pedrosa & Costa (2012) showed the examination marks obtained by students were substantially higher, there was a comparative class in the same year in which all students used a computerised classroom.

Not all research where technology has been used in the classroom has yielded positive results. Research done by Mula & Kavanagh where clickers or student response systems (SRS) as an educational tool in accounting were used in the classroom, showed that there was no significant change in students' results. It was understood that the reason for this could have been caused by the fact that students did not see the relevance of the use of clickers (Mula & Kavanagh, 2009) and that students did not see clickers as being interactive and a way of encouraging them to learn.

Key Definitions

Computer Technology- Accounting

The computer technology in accounting that is referred to in this research will be the introduction of accounting software in first year accounting class in higher education. (Papageorgiou, 2014).

Description of the topic

Research Methodology

This research is exploratory by nature as the aim of the research is to establish if first year accounting students were of the opinion that integration of theoretical and computerised accounting will enhance their learning of accounting principles.

The investigation was done by a questionnaire which contains quantitative elements. Babbie and Mouton (2001) proposed that a questionnaire can be used in a descriptive investigation. The results from the questionnaire will be analysed by scoring the students answers to determine the perception of students regarding the integration of accounting methods.

Research design

This research is designed to establish a link between the way accounting is currently being taught and using accounting technology in the classroom. All participants in the research will be first year accounting students from private higher education institutions. The reason for the selection of this group is that participants have done both manual and computerised accounting during 2014.

The research design that will be used is similar to the design used by Steenkamp, Flick and Baars (2009). Their research was to look at factors that influence why students have negative perceptions regarding first year accounting.

Research approach

The data collection instrument used will be a questionnaire (Annexure B) and the data gathered will be analysed using quantitative methods. The reason for using a quantitative technique, is that the respondents' questionnaire can be numerical evaluated.

Method of Data Collection

The questionnaire will be completed by all students studying first year accounting in Private Higher Education Institutions.

All questions in the questionnaire are related to the respondents' computing skills in general, their computer-based analysed using quantitative methods accounting skills and their accounting knowledge.

The questionnaire will consist of 15 questions of which there are three different types of questions.

Questions that require a respondent to rate the subject, on a scale from one to five;

Questions that ask the respondent to give a Yes or No answer;

Questions that ask the respondent to give their opinions on different statements.

Question where the respondents are asked to give a Yes or No answer. One point will be allocated to a yes answer and zero to a no answer. For the question that requires the respondents to give their opinions on different statements they must state if they strongly agree or strongly disagree.

All 15 questions will be scored with the uses of the following scale and the mean scores obtained will determine if students agree that their learning would be enhanced with the integration of manual and computerised accounting should be combined.

The question that requires a yes or no answer will score two for a yes answer and one for a no answer. For the question where respondents are to give their opinions regarding statements, points will be awarded as follows:

Respondents answer	Score
Strongly Disagree :	1
Disagree:	2
Neutral :	3
Agree:	4
Strongly Agree:	5

Each question in the questionnaire will be analysed under the following categories' total score, mean score and the standard deviation from the mean scores.

The scores of each questionnaire will be totalled and expressed as a percentage to determine if the respondents agreed or disagreed with the researcher. Should the total mean scores of the questionnaires be greater than 50% it would be said that the respondents agreed with the research question.

There will be no generalisation of results as the research is exploratory by nature, the aim is to investigate a problem of limited scope. The results of this research can only be applied to specific environments in which the research can be conducted.

The value that may be derived from this research is that the results of using this tool to encourage active learning can be shared via various platforms such as communities of practice and with other educators

Population sampling

The population for this research will be students studying first year accounting in Private Higher Education Institutions. The sample selection will be a class of 20 students in the class made up of males and females with an average age of 19.

As there are a small number of students in the class, all students will be asked to participate in the research. The research will be done in the last week of the second semester.

Ethical Issues

This research will be conducted with the principles of confidentiality, care, and sensitivity in mind. The research will only be conducted with the consent and permission of the participants. All participants will have to sign a consent form (Annexure A) before participating in the research. The researcher will ensure that no discrimination takes place against students/ respondents who prefer not to participate in the research or withdraw from the process.

In order to protect the confidentiality of the participants in the research, the questionnaires will be numbered and no names of participants will be reflected on the questionnaire.

All questioners will be destroyed after they have being analysed. The completed questionnaires will be stored within locked locations.

None of this information will be shared with third parties apart from the researcher and appointed statisticians. All sensitivity will be shown in dealing with all participants at all stages during and after the research.

Limitations

As the research that is being done is exploratory, research that has a limited scope combined with a small sample size in comparison to the number of students studying first year accounting could be perceived as a limitation to this research process.

The findings would only be true to private, higher education learning as the research will only be conducted there. Another limitation is that it could be seen that the questionnaire predominantly focuses on the respondent's own perception and their perception might not be a reflection of reality. The findings of this research could be used in future research that will expand on this topic. Future research on this topic could be Impact research.

Anticipated outcome of the research

The research will effectively answer the research question posed above “Can student learning be enhanced with the introduction of computerised accounting programs in the first year of study?”

The answers to the questioners will provide information to accounting lectures that will enhance student learning.

Explanation of the outcome/ impact/ results**Results and Discussions.**

There were 20 questionnaires handed out. One of the participants did not want to participate and another withdrew from the research. These two questionnaires were not included in the data analyses.

The mean score was calculated by taking the total score and dividing it by the number of participants. (In this research there were 18 students that participated)

The standard deviation was calculated using the standard deviation formula. The standard of deviation shows how much variation difference there is from the mean score.

$$\sqrt{\frac{1}{N} \sum_{i=1}^N (x_i - \bar{x})^2}$$

The percentages for each category shown in the table was calculated by taking the number of students that answered in each category and dividing it by the number of students that answered the questions and was expressed as a percentage.

Question 1

In Question One, students were asked to rate computerised accounting to the other modules that they did in their syllabus. This was rated on a scale of 1 to 5, 1 meaning they did not like computerised accounting and 5 being that it was an extremely worthwhile subject to learn. The reason that this question was asked was to establish whether students enjoyed doing computerised accounting or if they preferred manual accounting. On investigation of the data it was established that the mean score achieved for this question was 3.72 with a standard deviation of 0.72. It was seen that 44% of the students rated this question with a four, this showed that the students considered that computerised accounting was a worthwhile subject to learn. When adding the scores of rating 4 and 5 (44.44%+16.67 = 61.11%) it would confirm what students are saying about computerised accounting.

The lowest percentage achieved was a rating of one with a 0%.

Table for Question 1

Total Score	Mean Score	Standard Deviation	Rating 1	Rating 2	Rating 3	Rating 4	Rating 5	Rating Total
67	3.72	0.72	0%	5.56%	33.33%	44.44%	16.67%	100%

Question 2

In Question Two students were asked if they agreed that computerised accounting enhanced their accounting knowledge.

The student's responses showed that that 66.67% (this percentage was the sum of the score of agree and strongly agree) of the students agreed that computerised accounting enhanced their accounting knowledge.

33.33% of students remained neutral; none of the students disagreed or strongly disagreed that computerised accounting did not improve their accounting knowledge.

Table for Question 2

Total Score	Mean Score	Standard Deviation	Strongly Disagreed 1	Disagreed 2	Neutral 3	Agreed 4	Strongly Agreed 5	Rating Total
69	3.83	0.70	0%	0%	33.33%	50%	16.67%	100%

Question 3

In Question Three students were asked if they agreed that you needed prior computer knowledge to be successful to do computerised accounting.

When analysing the data from the questionnaire 33.33% of students strongly agreed and 27.78% of the students just agreed that prior computer knowledge is required to do computerised accounting.

27.78% of students remained neutral.

One student strongly disagreed and one student just disagreed with the statement.

The standard on deviation is high in this question because the students' options are so vastly different.

If you look at the prerequisite to do computerised accounting, prior accounting knowledge is required and not prior computer knowledge.

The reason for the differences in the students' answers could have been that they understood the question differently.

More students should have strongly disagreed with the statement as most computer software is user friendly.

Table for Question 3

Total Score	Mean Score	Standard Deviation	Strongly Disagreed 1	Disagreed 2	Neutral 3	Agreed 4	Strongly Agreed 5	Rating Total
68	3.78	1.17	5.56%	5.56%	27.78%	27.78%	33.33%	100%

Question 4

Question Four was to establish if students believed there was a gap between theoretical and practical accounting. The question required students to either answer a yes or no.

72.22% students strongly agreed with the fact that there was a gap between theoretical and practical accounting. 27.78% of the students did not agree with this statement.

Table for Question 4

Total Score	Mean Score	Standard Deviation	Yes 2	No 1	Rating Total
31	1.72	0.60	72.22%	27.78%	100%

Question 5

Question Five was a continuation of Question Four. The question was to establish if students believed that computerised accounting would help close this gap between theoretical and practical accounting. 66.67% of students agreed that computerised accounting will help close the gap.

33.34% of students did not agree to this statement.

Table for Question 5

Total Score	Mean Score	Standard Deviation	Yes 2	No 1	Rating Total
31	1.72	0.60	66.67%	33.34%	100%

Question 6

This question asked students whether they agree or disagree with the statement that computerised accounting added value to their computer skills. The findings from this question showed that none of the students disagreed with this statement and only 16.67% were neutral. 83.33% of the students agreed or strongly agreed that computerised accounting adds to your computer skill.

The reason for this question was to establish if students were in agreement that computerised accounting added to their accounting knowledge.

Table for Question 6

Total Score	Mean Score	Standard Deviation	Strongly Disagreed 1	Disagreed 2	Neutral 3	Agreed 4	Strongly Agreed 5	Rating Total
75	4.17	0.71	0%	0%	16.67%	50.00%	33.33%	100%

Question 7

This question asked students whether they agree or disagree with the statement that computerised accounting will improve their employment opportunities. The reason for this question was to establish if students saw computerised accounting as a subject that was a skill that would help them obtain employment.

When analysing the students' answers to this question it could be seen that 38.89% strongly agreed, 33.33% of students agreed, 22.22% remained neutral, 5.56% disagreed and 0% of students strongly disagreed with the statement that computerised accounting would improve their employment opportunities.

The sum of the students that agree and strongly agreed is 72% of the students. This shows that the majority of students understood the value that would be added to their learning computerised accounting.

Table for Question 7

Total Score	Mean Score	Standard Deviation	Strongly Disagreed 1	Disagreed 2	Neutral 3	Agreed 4	Strongly Agreed 5	Rating Total
73	4.06	0.94	0%	5.56%	22.22%	33.33%	38.89%	100%

Question 8

This question asked students whether they agree or disagree with the statement that computerised accounting improves accuracy when posting to ledger accounts.

The reason for this question was to test if students understood that computerised accounting would be more accurate when posting to general ledger accounts and when drawing up financial statements.

The results that were obtained showed that none of the students disagreed with this statement (Strongly agreed 0% and Disagreed 0%).

22.22% of the students remained neutral. 77.77% of the students either agreed or strongly agreed.

When looking at the percentage of students that agreed and strongly agreed (44.44% and 33.33%) proves that students do agree with the fact that computerised accounting will produce more accurate accounting records.

Table for Question 8

Total Score	Mean Score	Standard Deviation	Strongly Disagreed 1	Disagreed 2	Neutral 3	Agreed 4	Strongly Agreed 5	Rating Total
74	4.11	0.76	0%	0%	22.22%	44.44%	33.33%	100%

Figure: Question 8 Data Summary

Question 9

Students were asked if they agreed or disagreed with the statement that computerised accounting would save a company time and money.

All students agreed with this statement. 55.56% agreed with this statement and 44.44% of the students strongly agreed.

Students in classroom today are very computer literate and would find it very easy to work with the use of computer technology and therefore understand that companies can benefit financially from the use of technology.

Table for Question 9

Total Score	Mean Score	Standard Deviation	Strongly Disagreed 1	Disagreed 2	Neutral 3	Agreed 4	Strongly Agreed 5	Rating Total
80	4.44	0.51	0%	0%	0%	55.56%	44.44%	100%

Question 10

As students in today's classrooms are aware of the benefits of computerised technology this could be the reason for the high percentage of students that agree with the statement that computerised accounting will improve the performance of a business. 11.11% of students remained neutral and 88.88% of the students agreed or strongly agreed with the question. 0% of students disagreed with the statement.

Table for Question 10

Total Score	Mean Score	Standard Deviation	Strongly Disagreed 1	Disagreed 2	Neutral 3	Agreed 4	Strongly Agreed 5	Rating Total
78	4.33	0.69	0%	0%	11.11%	44.44%	44.44%	100%

Question 11

This question asked students to agree or disagree that computerised accounting would simplify the accounting cycle.

The accounting cycle is the accounting processes that must be followed monthly.

100% (61.11% agreed and 38.89% strongly agreed) of students agreed that the accounting cycle would be simplified with the use of computerised accounting.

As students in today's classrooms are aware of the benefits of computerised technology this could be the reason for the high percentage of students that agree with the statement that computerised accounting will improve the performance of a business. 0% of students remained neutral, disagreed or strongly disagreed with the statement.

The reason for this question was to see if students saw the benefit of computerised accounting.

Table for Question 11

Total Score	Mean Score	Standard Deviation	Strongly Disagreed 1	Disagreed 2	Neutral 3	Agreed 4	Strongly Agreed 5	Rating Total
79	4.39	0.50	0%	0%	0%	61.11%	38.89%	100%

Question 12

In this question students were asked if they were of the opinion that computerised accounting enhanced their confidence in accounting. The reason for this question was to establish if students agreed that their confidence in accounting would be improves by computerised accounting.

22.22% of the students were neutral, 50% of the students agreed and 27.78% of the students strongly agreed. None of the students disagreed or strongly disagreed.

The total of the students that agreed and strongly agreed is 77.78%. This shows that students were confident with accounting. The reason for this opinion could be because of the accuracy of computerised accounting.

Table for Question 12

Total Score	Mean Score	Standard Deviation	Strongly Disagreed 1	Disagreed 2	Neutral 3	Agreed 4	Strongly Agreed 5	Rating Total
73	4.06	0.73	0%	0%	22.22%	50%	27.78%	100

Question 13

In this question students were asked if they agreed or disagreed that accounting assessment scores would be improved with the integration of computerised accounting.

Although the 61.11% of students agreed or strongly agreed, 38.89% of students neutral. This is concerning to the researcher because it is not as convincing as findings in other questions.

This could have been caused by the fact that there was no assessment done so that students could see if there was an improvement in the results.

None of the students disagreed or strongly disagreed with the statements.

Table for Question 13

Total Score	Mean Score	Standard Deviation	Strongly Disagreed 1	Disagreed 2	Neutral 3	Agreed 4	Strongly Agreed 5	Rating Total
72	4	0.91	0%	0%	38.89%	22.22%	38.89%	100

Question 14

In this question students were asked if they agreed or disagreed that if computerised accounting and accounting was integrated more students would major in accounting. The reason for this question is to establish if students would find accounting more interesting if it was computerised.

The finding of this question was difficult to analyse as 33.33% of the students were neutral.

As the combined scores of the students who agreed and strongly agreed is 66.66% it could be said that students agree that more students would major in accounting. For the instance of assessment scores improving with the integration of computerised accounting, the researcher would have liked a more convincing score.

0% of the students disagreed or strongly disagreed with the statements.

Table for Question 14

Total Score	Mean Score	Standard Deviation	Strongly Disagreed 1	Disagreed 2	Neutral 3	Agreed 4	Strongly Agreed 5	Rating Total
72	4	0.84	0%	0%	33.33%	33.33%	33.33%	100

Question 15

In this question students were asked whether they thought the fundamentals of accounting could be taught if computerised accounting and accounting were integrated.

This question required students to answer either yes or no.

The question was directly in line with the research question.

66.67% of the students were of the opinion that the fundamentals of accounting could be taught using computerised accounting, 33.33% of students felt that this could not be done.

The researcher would have preferred a higher score for the students that agreed that the fundamentals of accounting could be taught with the use of computerised accounting.

Table for Question 15

Total Score	Mean Score	Standard Deviation	Yes 2	No 1	Rating Total
30	1.67	1	66.67%	33.33%	100%

Conclusions/ Recommendations

The debate of whether the use of computer technology in accounting classrooms would enhance students performances in first year accounting classes has been going on for years and will continue because of the pace that technology is being incorporated into the business world. (Albrecht & Sack, 2000)

The focuses of higher education should be to get students ready for the business world (Chetty, 2011).

In order for accounting students to equip themselves with the necessary skills to meet the challenges ahead, it is necessary to integrate manual accounting and computerised accounting. (Papageorgiou, 2014)

The purpose of this research was to investigate if students believed that the integration of manual and computerised accounting will enhance their learning of accounting.

A questionnaire was compiled where students were asked to rate fifteen statements regarding what they felt about computerised accounting.

Question One was to rate the statement on a scale of 1 as to 5 (one being the lowest and five being the highest)

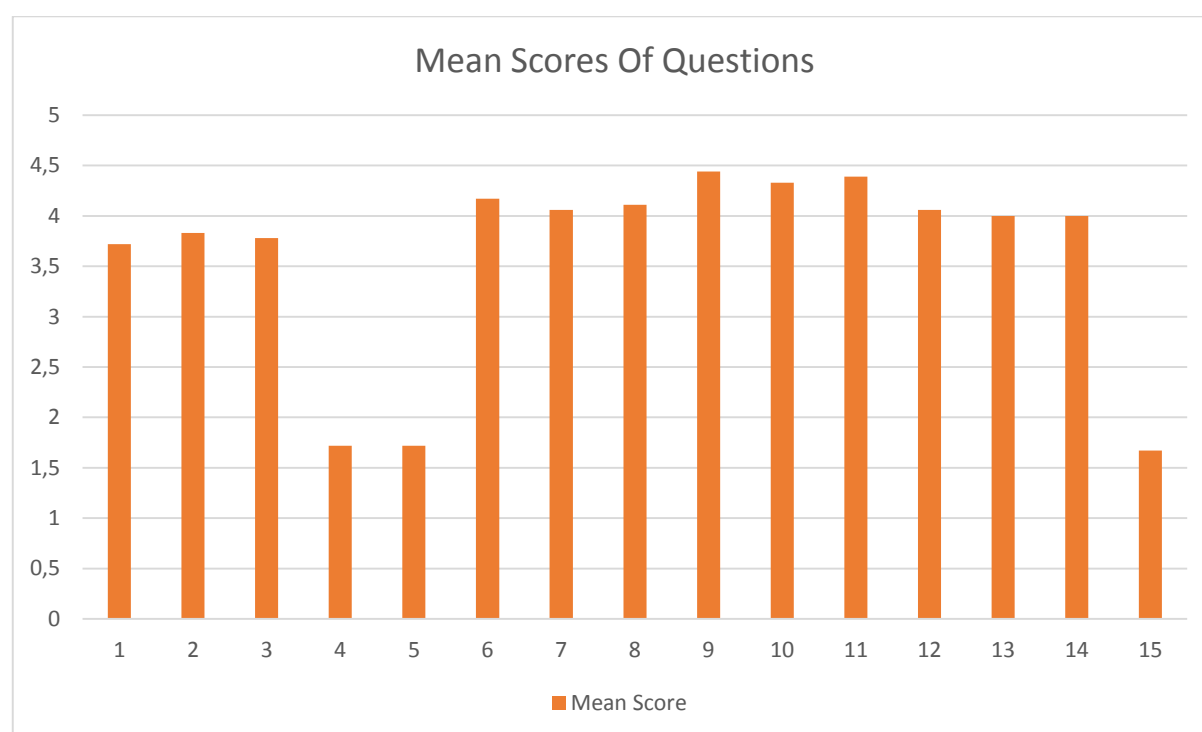
Questions Two, Three and from Questions Six to 14, students were asked to if they agreed or disagreed with the statement.

In question Four, Five and 15 students were asked to give a yes or no answer. All questions were given a numerical score so that the research could be quantified.

The questionnaire was designed to establish two criteria that pertained to the students' perceptions of computerised accounting. The first was the students' attitudes and skills required to do computerised accounting (Question 1 to 6 and Questions 12 to 15) the second was to establish if students saw the benefits that would be gained from the integration of manual and computerised accounting.(Question 7 to 11)

The mean scores for each question were used to determine if the students were in agreement with the research question, that computerised accounting would enhance their learning of accounting.

The maximum number of points for each section was divided by the total mean score and expressed as a percentage.



The score for the section that tested the students attitudes and skills required to do computerised accounting was 79.68%.

Table to establish students attitudes and skills towards computerised accounting.

Question	1	2	3	4	5	6	12	13	14	14	
Maximum scores	5	5	5	2	2	5	5	5	5	2	41
Mean scores	3.72	3.83	3.78	1.72	1.72	4.17	4.06	4.00	4.00	1.67	32.67
Percentage for section											79.68%

The section to test if students saw the benefit that would be gained from the integration of manual and computerised accounting scored 85.32%.

Table to establish if students see the benefit that would be gained from the integration of manual and computerised accounting

Question	7	8	9	10	11	
Maximum scores	5	5	5	5	5	25
Mean scores	4.06	4.11	4.44	4.33	4.39	21.33
Percentage for section						85.32%

The average standard of deviation is 0.76, this is a reasonable amount to be either side of the mean score.

Table Standard Deviation

Question	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
Standard Deviation	0.72	0.7	1.17	0.6	0.6	0.71	0.94	0.76	0.51	0.69	0.5	0.73	0.91	0.84	1	11.38
Average Standard Deviation																0.76

When analysing the student's attitude and skills, benefits to students and the average standard of deviation, it can be concluded that students agree that manual accounting and computerised accounting should be combined.

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Seventh Annual IIE Celebration of Teaching and Learning

2015 Celebration of Teaching and Learning

21ST Century Students don't Need Lecturers

Submitted by: Graham Downing

Introduction of the topic

I applied for the position of junior lecturer, not expecting to be offered the role. Although I had no formal training in teaching and no academic experience of lecturing, I was offered the post. At this point, my biggest concern and fear was whether or not I was making the right decision in changing to a career of teaching. Academically speaking, I didn't feel confident enough to deliver and teach the curriculum content that would contribute to the students' cognitive development in the subject of Visual Communications. Yet, I was comfortable in my own understanding, ability and experience of the discipline. This was the start and continuation of an emotional, yet rewarding, seven-year journey of self-reflection on my practice of being a novice educator.

In spite of the fact that I entered the world of teaching having had no formal training as an educator, I drew on significant moments of teaching and learning by my teacher role models that made an impression on what I understood the function of a lecturer to be. I also considered the advice, recommendations and teaching 'tricks' of my peer lecturers through workshops, conferences such as Celebrate Teaching & Learning and the casual office banter by the water cooler. Some teaching methods worked; and worked really well but many did not. During and after lessons and projects I spent many frustrated hours contemplating why many of my students were just not performing and eager in taking responsibility for their own learning. It was during this time that I started to question my practice and my understanding of what I do as a lecturer. Gradually I started to develop an appreciation and a better understanding of what was required from me to be a tertiary educator. I did not view myself as an academic, and many of the teaching decisions I made in the classroom were certainly not based on any formal academic teaching theories or methodologies, but rather on personal intuition and trial and error. Often, while I was lecturing and in consultation with students, I found myself making decisions based on the knowledge that I had gained through experience and through reflection on my practice. Schon (1995) describes this phenomenon as that of "knowing and reflection in action" (Schon, 1995, p.31). Fortunately, I was also privileged to have had the support of my fellow colleagues who had a few more years of teaching experience. Although they themselves had no formal training in the theories of education, they were still able to assist and guide me based on their own generated knowledge and theories. Similarly, I evaluated my teaching practice and methodology through my own personal educational development (Whitehead, 1989) by learning from the successes and failures of other lecturers and my own lived experiences. Yet, despite my 'learning in action', (Schon, 1995, p.31) through trial and error, I was still perplexed about my function and identity as a tertiary lecturer.

Motivation for the topic

Reflecting over the nine year period as a full time lecturer at Vega, I observed a troubling disconnect between my teaching practice and the learning attitudes of my students. I remember feeling overwhelmed, confused and frustrated with the students' negativity and lack of responsiveness towards my teaching. This was despite my commitment and dedication to teaching and the students, as well as my passion for the subject I taught.

I felt there was a mismatch between the students' expressions of apathy and indifference and what I expected from my students based on what I was doing in the lecture sessions. My initial instinct was to blame the students and hold them accountable for their perceived laziness and less than desirable levels of performance. I held the opinion that the problem lay with the students and therefore it was the responsibility of the students to change their ways and address their attitude problem.

It was at this point that I realised that if any relevant learning by the students was to take place, my role as a teacher and the teaching strategies I employed had to be re-shaped and re-evaluated. This realisation led me to question and reflect upon my classroom management style and teaching practice (Milner & Tenore, 2010), which in turn began the process of shifting my teaching methodology in order to better my approach as a lecturer and hopefully lead to the development of the students' full potential.

In the process of shifting my teaching methodology, I came to realise that the role of the lecturer was far more complex than simply disseminating information (Ramsden, 2003, pp.108–10). Hence, my interest in understanding what my responsibility and function, as a lecturer in the context of tertiary education ought to be. I wanted to know what I needed to change and adapt in my teaching and learning methodology so as to provide an effective and empowering learning space that would cater for and accommodate students with varying educational needs (Freire, 1998; Gadotti, 1994). My desire was to be an effective educator for the benefit of all my students.

Researchers Biggs and Tang (2011) point out that effective teaching and learning requires reflective enquiry on practice in order to create an environment where students perceive the activity of learning as a "good and impelling idea" (Biggs, & Tang, 2011, p.34). Dewey (cited in Skilbeck, 1970) reiterates this point by stating that a teacher should be a 'catalytic agent' who creates a setting conducive to learning. It is also the belief of Ramsden (2003) that teaching and learning are inseparably linked activities and he suggests that teachers can improve their teaching practice if they are willing to re-evaluate what they already know and believe about teaching (Ramsden, 2003, pp.5–11). This perspective of what constitutes effective teaching formed the basis on which I began to critically reflect upon and identify what I understand my teaching philosophy to be.

Description of the topic

Thus, I began my three year journey of self-reflection and self-study, in the form of a Masters degree, with the intention of answering *'What if the responsibility of learning in the 21st century shifted from the lecturer onto the student, how would that shift in responsibility affect the role and practice of the lecturer?'*

It is the opinion of Conley and French that "The world that today's young people are entering is one that will continue to change rapidly and that will make demands on them to be true lifelong learners. Their ability to take **ownership of their learning** will be key to their success not only in school but throughout their lives" (Conley & French, 2013, p.1031). It is my perception that 'ownership of learning' will greatly influence learners' achievements (Casim, & Yang, 2012, p.13). The following definition of 'ownership' by Rainer, & Matthews, (2002, p.22), helps to clarify the learning benefit, "When humans are mentally active, they are agents in their own learning. They own that knowledge, and they relate it to their own experience. Hence, ownership could be described as the linchpin or a central and cohesive element of knowledge construction". This notion of learning ownership resonated with what I felt about my students' futures in a rapid and ever changing world of design and brand communications.

The primary research question that underpinned my self-study was: *How do I improve my practice as a lecturer in a private tertiary institution, so as to facilitate learning ownership among students?* In other words, my objective was to investigate, interrogate and critically reflect on my teaching and learning practice, so that my students would benefit from everyday research opportunities - described by McClintock et al (2003) as facilitation (McClintock et al, 2003, p.720) – so that I may equip and enable them to become life-long learners who construct knowledge through their learning. In order to address this research question, I developed three critical sub questions to help structure and plan my research:

Question 1: *What do I understand my practice as a lecturing facilitator to be?*

In order to shift my approach to practice, so as to facilitate learning ownership among students, I first needed to take cognisance of what I understood my practice as a lecturer to be (Ramsden, 2003, p.5). This question allows me to critically reflect on my own personal educational history. This reflection allowed me to identify the significant learning and teaching experiences that helped shape and influence my perspective and values in terms of what a lecturing facilitator is.

Question 2: *How does my current lecturing/ facilitating practice encourage or discourage learning ownership?*

By critically investigating my current practice, it was my aim to document and identify teaching strategies and approaches within the learning environment that proved to be effective and those that did not. I also wanted to determine whether or not there were any links between the educational values highlighted in question one that corresponded to any of the teaching values identified in question two and whether or not they encouraged or discouraged learning ownership among the students. In other words, what is the link, if any, between my personal learning experiences and my current practice?

Question 3: *How do I shift my understanding of practice in order to facilitate learning ownership?*

The purpose of question three was to assess and collate the collected data so as to identify teaching strategies and methodologies that provided insights and answers to the following two sub- questions of question three:

- a) *What changes do I want to see in the students' attitude towards ownership of their own learning?*
- b) *What changes do I want to see in my practice?*

Based on the outcomes for each of these sub-questions, I drew conclusions on establishing (a) what my teaching and learning philosophy was, and (b) how best to improve on my practice as a lecturer in a private tertiary institution, so as to facilitate learning ownership among students.

To fully appreciate and understand my function and purpose as a 'catalytic agent' who provides materials; clues, information, suggestions and clarifications conducive to learning (Skilbeck, 1970), I explored and interrogate my constructed knowledge of what a teaching and learning facilitator is. Hence, I utilised the constructivist theory to gain insight and a perspective of my personal educational history as well as an appreciation for how my students learn.

The theoretical perspective of constructivism is important and appropriate in that it provides the context and foundation on which my study will be placed. However, my study aimed to be even more specific in that its foci concentrated on empowering students to taking ownership of their learning - knowledge construction - by requiring students to critically engage with the knowledge they already have regarding their experiences of freedom, knowledge and power relations. It is for this reason that I chose to use critical education theory, also known as critical pedagogy (McLaren, 2007). It was also helpful to note the following quote, which further helped clarify my perception of critical pedagogy:

Critical pedagogy is not a set of ideas, but a way of 'doing' learning and teaching. It is a practice motivated by a distinct attitude toward classrooms and society. Critical students and teachers are prepared to situate learning in the relevant social contexts, unravel the implications of power in pedagogical activity, and commit themselves to transforming the means and ends of learning, in order to construct more egalitarian,

equitable, and ethical educational and social environments” (Canagarajah, 2005, p.932).

With this understanding of critical pedagogy as a “way of doing teaching and learning” (Canagarajah, 2005, p.932), and not simply a set of theoretical boxes to tick, I endeavoured to identify in my personal educational history and my lived teaching and learning practice whether or not critical pedagogy took place. To help focus my enquiry I utilised the key principals of critical pedagogy (Kalpol, 1998) as a point of reference to measure and assess my experience and ‘way of doing’ teaching and learning. Kalpol (1998) further suggests “Critical pedagogy holds that democratic principles must become a way of life in all subject areas and all extra-curricular content” (Kalpol, 1998, para.11).

Another theoretical lens I believed would be helpful in identifying and understanding my philosophy of teaching and exploring my role as facilitator, is the Self-Determination Theory. It is my understanding that if Critical Pedagogy is concerned with the extrinsic values of teaching and learning, then Self-Determination Theory is concerned with the intrinsic psychological values of teaching and learning. As described by Ryan, Stone and Deci (2009), Self-Determination Theory focuses on the intrinsic importance of work, where three core psychological needs are identified. These are firstly, competence which describes the belief that one has the ability to influence important outcomes, then relatedness which is understood as the experience of having satisfying and supportive social relationships and thirdly, there is autonomy which is concerned with the sense of choice and self-determination, also described as sustainable motivation (Ryan, Stone and Deci, 2009, p.68). My interest in utilising this theory in my study was based on the need to provide insight and understanding of the psychological values that influence and affect learning – knowledge construction – and its ownership in my classroom. Although each of the theoretical lenses is of value to my self-study research, priority was given to that of the Critical Pedagogical lens.

The research paradigms that underpin and support the framing of my self-study research are the ‘critical’ and ‘interpretivist’ paradigms. Nieuwenhuis describes the ‘interpretivist’ paradigm as that which focuses on people’s subjective experiences and how they “construct” the social world by sharing meanings, and how they interact with or relate to each other (Nieuwenhuis, 2010b, p.59). Interpretivism, together with the ‘critical’ paradigm as explained by Nieuwenhuis (2010b, p.62), in the following statement, “The main task of critical research is seen as being one of social critique....Critical research...seeks to be emancipatory, that is, it should help to eliminate the causes of alienation and domination.” This helps to highlight and further emphasise the purpose and aim of my self-study in that it seeks to understand and establish meaning from my subjective teaching experiences in order to encourage change that empowers all stakeholders concerned.

I used Personal History Self-study and Developmental Portfolio Self-study methodologies (Samaras, et al, 2004) to explore and reflect on my early educational teaching and learning experiences and my lived teaching and learning practice. I made use of 'memory work' as the primary method for generating data for my study (Samaras, Freese, 2006). The data sources I utilised were – letter writing (Pithouse-Morgan, 2012), memory drawing (Pithouse-Morgan, 2012), and artefact retrieval, such as photographs and actual objects (Mitchell, et al, 2009). These sources assisted me in reflecting on educational contexts and the people that have made a significant impact on my teaching and learning experiences. From these self-study methodologies, I formulated teaching and learning principles that speak to and reflect my teaching and learning philosophy and ideology and the implications they have for enhancing students' teaching and learning experiences.

Explanation of the outcome/ impact/ results

The key purpose of my study was to identify and draw attention to the fundamental need for teachers and students of the 21st century to be tasked with taking ownership of their critical roles as interrelated educator and learner. It was my objective to scrutinise, cross-examine and critically reflect on my teaching and learning practice, with the aim of changing my practice so that my students may be empowered through the ownership of their learning. My findings derived from the three research sub-questions I believe have addressed the primary research question sufficiently.

Sub-question 1, *'What do I understand my practice as a lecturing facilitator to be?'*

This question helped me identify the noteworthy teaching and learning incidents of my own early educational history that influenced and shaped my understanding of what my practice as a lecturer is. Consequently, I now appreciate the invaluable influence that my teachers have had on my early educational development. I learned that my understanding of my practice as lecturing facilitator is based on the values of 'teacher empathy', the notion of 'perceived caring' and 'respect' for the needs of students (Mendes, 2003). These values were expressed through healthy interpersonal relationships between teacher and students (Frymier, & Houser, 2000, p.217; McHugh, Horner, Colditz & Wallace, 2013, p.28)., often bearing resemblance to the roles of family members such as loving parents and caring siblings. Thus, I became aware that the consequential effects of fostering 'teacher empathy', through interpersonal relationships with my students, have the potential to empower and encourage learning ownership.

Sub-question 2, 'How does my current lecturing/ facilitating practice encourage or discourage learning ownership?'

This question helped me understand my current teaching practice better, however, not in the way that I initially anticipated. My initial intention for asking this question centred on the investigation of the teaching and learning methodologies that I implemented in my lessons as a lecturer and whether or not they encouraged learning ownership in my students. However, the data generated for this question provided a far more insightful understanding of the psychological influences and conditions that affected my students' learning behaviour and my related teaching behaviour. I learned that there was a distinct connection between the students' work ethic and their motivation. It was interesting to note that if students lacked self-efficacy - the belief in their physical and intellectual capabilities and skills – the consequence was that they lacked the confidence and motivation to work effectively and productively on their projects (Bandura, 2000). It is my understanding that this was as a result of the students being oppressed by their own psychological state of mind, which discouraged them from taking ownership of their own learning. I also learned that I employed democratic principles of equality and freedom of speech in my lessons. This was partly evidenced in how I implemented teaching methodologies and strategies in my lessons and the practice that encouraged student peer teaching and the sharing of knowledge and opinions.

Consequently, I learned that in order for students to take ownership of their learning they first needed to be in an intellectual position in which they felt capable and comfortable with their skills and abilities. It is my understanding that this would result in a higher more resilient and persistent level of work ethic; that students would express more confidence and be willing to engage with more challenging and difficult tasks (Zimmerman, 2000). I have also realised that I need to be more deliberate in equipping and encouraging my students in their beliefs of their capabilities and sense of self-efficacy. Thus, I believe that my teaching and learning intentions are situated within the theoretical framework of 'critical pedagogy'. However, there is and will always be more about my teaching and learning practice that I need to change and consider implementing as a critical practitioner.

The third sub-question I addressed: 'How do I shift my understanding of practice in order to facilitate learning ownership?'

The purpose of this question was to reflect upon the collected data and discuss the meaningful interpretations and what they meant in terms of the changes I wanted to see in my own professional practice and that of my students' attitudes towards taking ownership of their learning. Therefore, based on the learning outcomes for each of these sub-questions, I developed a set of four guiding principles on how to change and improve my practice as a lecturer in a private tertiary institution, in order to facilitate learning ownership among students.

Principle 1: Teacher behaviour

I learned that a teacher's behaviour plays a significant role in that it influences the circumstances and conditions which enable students to be empowered in taking ownership of their learning. Thus, positive teacher behaviour that expresses values of empathy and caring emancipates students in their educational development. Therefore, in order for my students to be empowered, my teaching behaviour needs to be reflective of, but not limited to, the values of empathy, caring, respect and support. This principle spans the theoretical contexts of living theory and critical pedagogy in that it addresses the need for improved practice through lived values. It also challenges the traditionally accepted relationship between power and knowledge in social learning contexts such as classrooms. This is certainly a necessary condition for the following principles to be effective.

Principle 2: Student – teacher interrelations

I have learned that healthy interrelations between student and teacher are vital for fostering positive and effective educational outcomes. Thus healthy student-teacher interrelations are essential for students to be perceived as valued and respected. Therefore I would need to ensure that I build and nurture the ideals of healthy interrelations with my students in order to encourage their self-confidence. I believe that this principle spans both the theoretical context of critical pedagogy and that of self-determination theory in that it affirms the commitment to transforming learning social contexts that are democratic with the specific focus on the core psychological needs and wellbeing of the student. This would also be a prerequisite condition for the following principle to be applied.

Principle 3: Self-efficacy

I have realised that in terms of the students' psychological state of mind, instilling a high sense of self-efficacy is a fundamental prerequisite if students are to be in a position to take ownership of their own learning (Zimmerman, 2000, p.82). I have learnt that students that express a high sense of self-efficacy are more inclined to display a greater sense of motivation, higher work ethic and affinity for risk taking. I therefore need to ensure that I encourage and foster self-efficacy in my students in order to empower them against their own destructive and oppressive thinking. It is my belief that this principle is well grounded in the theoretical context of self-determination theory, in that it addresses the specific emotional and psychological teaching and learning needs of the student and the effect it has on their productiveness.

Principle 4: Co-peer teaching

I have also come to realise that co-peer teaching is an essential teaching method (Goldschmid, B & Goldschmid, 1976) that actively applies the theoretical and underpinning principles of critical pedagogy in and through the act of knowledge construction. Hence, co-peer teaching facilitates the democratic shift in teaching and learning responsibility and classroom power relations, in which the student becomes the teacher who learns through the act of teaching. Therefore, I need to design and facilitate lessons that utilise co-peer teaching methods to encourage an active sense of learning ownership.

Conclusions/ Recommendations

My self-study revealed; that in order to facilitate learning ownership among students, classrooms need to be democratic learning spaces in which students are encouraged to construct knowledge by critically engaging with the knowledge they already have. I have realised that, fundamentally, teachers need to consider how the principles of critical pedagogy - 'justice', 'democracy' and 'freedom of the oppressed' - are being implemented in their lessons and classrooms. Moreover, teachers should be aware of their teaching behaviour and consider the consequences it could have on empowering students to take ownership of their learning and educational development. In addition, teachers should foster healthy interrelations with their students where the responsibility of power is co-shared in the classroom. I have also become aware that teachers should instil the quintessential values of teacher empathy and caring into their practice, as this would empower students to learn intrinsically. In addition, teachers should consider teaching methods and strategies such as co-peer teaching that create a strong sense of self-efficacy in their students, as this would free the students of their own oppressive thoughts and beliefs.

It is not my intention for this paper to discredit or critique existing teaching theories or to conceive new teaching ideologies. Rather, it is my desire to share a self-study research journey that identifies, confronts, embraces and renews my understanding of my teaching and learning philosophy and practice in order to encourage teachers in a tertiary education contexts to self-reflect on their own teaching and learning journeys to develop their own teaching and learning philosophies.

Throughout this reflective journey I realised that various teachers and teaching contexts shaped and framed my understanding of what my identity and role as a lecturer in a tertiary institution is. I have become aware of how influential a teacher's positive and negative behaviour can be on the cognitive and psychological ability of a student. Furthermore, I gained a renewed and deep-seated appreciation for the teachers who cared, showed empathy and took an interest in building a relationship with me; I am because they were.

I discovered that, in order to facilitate ownership of learning in my students, I needed to be critically aware of my teaching behaviour and therefore proactively change my practice so as to foster healthy interpersonal relationships that empower and emancipate my students in their teaching and learning experiences. I have also realised that my students' own psychological state of mind could be oppressive and a hindrance, resulting in of low self-efficacy. Thus, I need to change my teaching behaviour in my practice, with the intention of encouraging and nurturing self-efficacy in my students to be more confident, motivated, and resilient in themselves and their teaching and learning experiences.

My recommendation is that lecturers in tertiary institutions should seek to emancipate and empower their students and critically reflect upon their own fundamental educational life histories and the influences that have shaped their understanding and framing of their practice. We, as lecturers, should pay careful consideration to our teaching behaviour and the potential impact it has on the students' abilities to be empowered in taking ownership of their learning.

It was not my intention for this paper to discredit or critique existing teaching theories or to conceive new teaching ideologies. Rather, it has been my desire to share a self-study research journey that identifies, confronts, embraces and renews my understanding of my teaching and learning philosophy and practice in order to encourage educators in tertiary education contexts to self-reflect on their own teaching and learning journeys to develop their own teaching and learning philosophies and question the role and identity of lecturers in the 21st century.

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Seventh Annual IIE Celebration of Teaching and Learning

2015 Celebration of Teaching and Learning

A New World, Demanding New Skills: exploring digital literacies through fully online engagement

Submitted by: Liesl Scheepers

Introduction of the topic

Ordinarily, when we consider 'literacy', we tend to think of an individual reader consuming the work of an individual writer. The emergence of electronic forms of communication, like email, social networking, video-sharing and the exponential growth of the World Wide Web, has meant that the concept of both *knowledge* and *literacy* has changed dramatically from our traditional understanding of these terms (Belshaw, 2014).

As this online world rapidly expands, so the importance of being able to access and navigate this digital landscape grows; but merely blundering around without a clear sense of direction, or the means to accurately interpret what we encounter there, renders any foray into these online spaces pointless – and possibly even dangerous.

Drawing on a set of essential Web and digital literacy skills; identified through Belshaw's (2014) *Essential Elements of Digital Literacies* and The Mozilla Foundation's *Web Literacy Map*, a programme was designed aimed at offering anyone in the world (with internet access) the opportunity to develop these skills through structured investigation, exploration and creativity. In March of this year, the IIE's Varsity College launched a fully online, activity-driven, MOOC: '*Web & Digital Literacies*'; this paper explores the premise on which this programme was developed, and designing material for an online space that will be accessed without any lecturer, or facilitator presence.

Motivation for the topic (the need for web and digital literacies)

The 21st Century brings with it a range of challenges; many of which have been brought about by a rapidly developing digital age. Successfully navigating these digital spaces demands that we embrace new norms, and acquire a range of skills that will allow us, not only *access* to these online platforms, but also the ability to *share*, *collaborate* on, and *create* its content. The opportunity for *learning* within these spaces is boundless; unrestricted by distance, language or culture. This means that knowing *how to connect* with others is essential, and the ability to *evaluate* and *interpret* the plethora of information that is available, absolutely critical.

The allure of the *immediate*, the seduction of the 'selfie' and a seemingly insatiable appetite for posting, tweeting, downloading and instant-messaging, leaves in its wake an endless stream of (meta)data – personal information that we leave behind; information that is available to be exploited by anyone who knows where and how to look for it. Understanding *how to protect* ourselves in a digital world has become more important than ever before.

The digital world is fundamentally different from that of the analogue world we are so used to; the digital world affords us the opportunity to do something that the analogue cannot, the option of making perfect copies of what has gone before. We can then manipulate these copies; “alter (them) fundamentally, or mash (them) up with something else. When added to the ability to instantly share what we have created, the creative possibilities are endless” (Belshaw, 2014, p.86). We need to embrace new ways of thinking, constructing and communicating; instead of trying to mirror what we have always done - we have to use technology to achieve something that was not possible before – *we need to evolve, rather than emulate* (Belshaw, 2014).

Description of the topic

Belshaw (2014), in his work on the essential elements of digital literacy, suggests that in different situations, and within different *contexts*, an individual's level of digital literacy will vary. He explains that the level of literacy will depend on what type of technology someone is using, what they are hoping to achieve by using it, and their level of interest in that particular form of technology. Thus, in collaboration with The Mozilla Foundation, a Web Literacy Map was created which identifies 15 Web and digital competencies that promote the ability to read, write and participate on the Web (Mozilla Webmaker, 2015).

Drawing from Belshaw's (2014) work on both Web and digital literacies, I formulated a range of learning outcomes, around which six activity-driven learning units were developed. These learning units have been packaged as a self-paced MOOC, thus offering users, on a global scale, the opportunity to develop these essential 21st Century life-skills at no cost – other than those related to internet connectivity.

The six learning units that make up the IIE's Varsity College's MOOC have been developed using learning design principles that, according to Salmon (2013), support activity-based theories - where students complete a series of tasks, or activities, that lead them through the various themes associated with each learning unit. At the end of each learning unit, students are required to make a submission; these range from a contribution to a Discussion Board or designing a Movie Poster to creating a mash-up' in pursuit of the 'Ultimate Remix'. On submission of their work they earn a *Badge* – these badges are part of the Mozilla Backpack system; which allows individuals to collect badges for various courses that they have undertaken and display these real-world achievements in a virtual format (Mozilla Open Badges, 2015).

[To learn more about Mozilla Open Badges – scan this QR code].



Both Mozilla and Belshaw strongly support the concept of “learning by making and tinkering”; this is certainly not a new idea, nor is the promotion of interest-based pathways for learning. These concepts are fundamental to the work of foundational thinkers such as Froebel, Montessori, Dewey, Thorndike, Vygotsky, Papert and Csikszentmihalyi (amongst others). *Constructivism* is, broadly speaking, a learning theory that focuses upon experiential learning, self-direction, creativity and first-hand experience. It posits learning as an active, social process, while *Connectivism* sees learning as a process of practice and reflection (Belshaw, 2011). Both these theories strongly informed the development of this self-paced MOOC where students are able to learn through a process of discovery and a sense of play.

The following table provides an outline of the six learning units that I developed for the ‘*Web and Digital Literacies*’ MOOC:

Learning Unit	Topic	Purpose
LU1	Navigate ~ Infrastructure ~ Web Mechanics	<i>“What is the difference between The Web and the Internet?”</i> This learning unit deals with navigation discovering the relationships between the moving parts of the web, like IP addresses and URLs.
LU2	Credibility ~ Security ~ Privacy	In this learning unit we investigate how you can make more informed judgments about the information you encounter online, and how to protect yourself against scams, ‘phishing’ and identity theft.
LU3	Open Practices ~ Search ~ Compose	In this learning unit we investigate the difference between open and closed sources and how different licenses can be used to be creative and share your ideas online.
LU4	Share ~ Collaborate ~ Participate	Being able to share, collaborate and participate in an online space are all vital 21 st Century skills; this learning unit will show you exactly how to get started.

Learning Unit	Topic	Purpose
LU5	Coding/ Scripting ~ Design ~ Remix	A basic understanding of creating content for the Web is all you need to start sharing your ideas – no need to be a passive consumer any longer.
LU6	The Ultimate Remix	Here you are free to select any of the 15 skills covered in LU1-5 and create something entirely of your own: Mash-ups, Memes, a Movie Poster or online game – the choice is yours!

Scan this QR code and watch the short clip that introduces the MOOC to potential students.



The following section looks specifically at the *structure* of one of these learning units, and provides some insight into how a student would access and engage with this online material.

The initial page provides the title of the learning unit, the outcomes (indicated by the target icon below), the number of activities (in this case two) and the notional hours (2). In order to access the content of this learning unit, students need to click on the link at the top of the page.

↓

 **Learning Unit 4: Share ~ Collaborate ~ Participate**

LU 4: Share ~ Collaborate ~ Participate

The purpose of this learning unit is to introduce you to the fourth in a series of essential Web literacies.

On completion of this learning unit, you should be able to:



No of activities: 2

Notional hours: 2

- Explain the importance of collaboration;
- Identify the seven habits of successful online discussion forum participants;
- Explain the value in using social media platforms for the purpose of collaboration;
- Explain the concept of crowdsourcing.

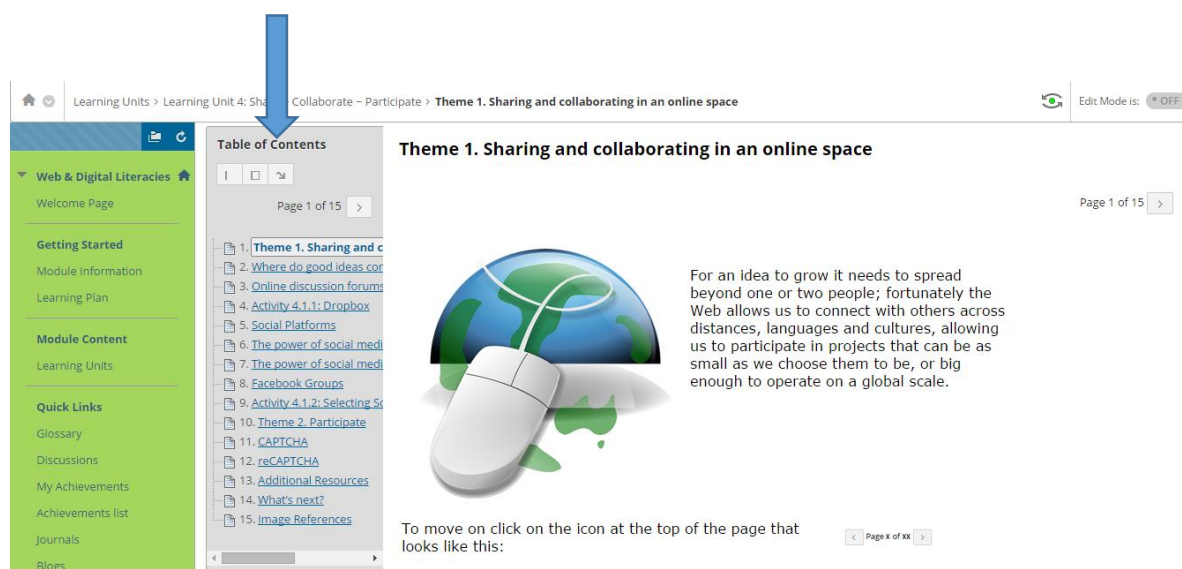
To move on click on the icon at the top of the page that looks like this:

 Learning Unit 4: Share ~ Collaborate ~ Participate

Icons have been created to indicate a specific 'action' that is required; the *target* identifies the specific *objectives* of each learning unit, the *lightbulb* identifies something that students need to '*think about*', the coloured *discs* identify a specific *activity* that needs to be undertaken, while the 4th icon calls for students to 'join the dots' – to realise the *connection* that exists between a range of ideas, concepts or processes that have been covered in that particular learning unit. The final icon indicates the presence of additional resources that may be of interest to the student.



Page 1 of each learning unit provides a *Table of Contents* (indicated to the left of the page), this allows for an overview of the contents making it simple to track one's progress.



Learning Units > Learning Unit 4: Sharing and collaborating in an online space > Collaborate – Participate > Theme 1. Sharing and collaborating in an online space

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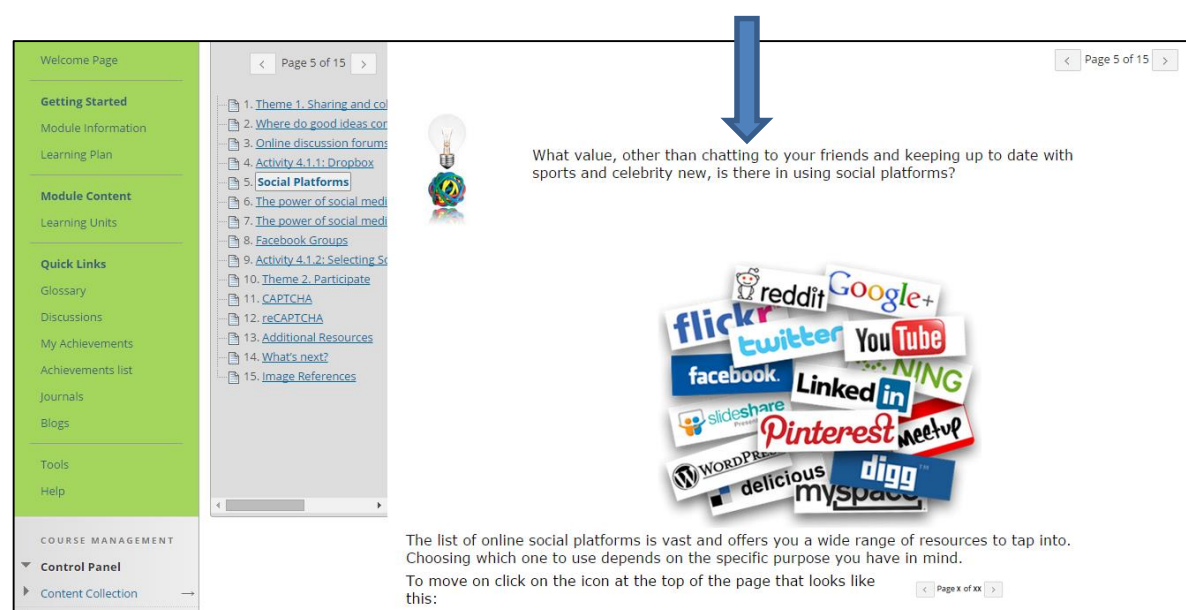
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Theme 1. Sharing and collaborating in an online space

For an idea to grow it needs to spread beyond one or two people; fortunately the Web allows us to connect with others across distances, languages and cultures, allowing us to participate in projects that can be as small as we choose them to be, or big enough to operate on a global scale.

To move on click on the icon at the top of the page that looks like this:

Here the lightbulb icon indicates that students are required to *think about* the value of social media; to consider the power of social media beyond the obvious uses as indicated in the question below. No model answer is provided, nor is there necessarily a single 'correct' answer – the 'Think About' sections (also referred to as 'spark questions') are included to initiate thought around a particular idea or statement.



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What value, other than chatting to your friends and keeping up to date with sports and celebrity news, is there in using social platforms?

The list of online social platforms is vast and offers you a wide range of resources to tap into. Choosing which one to use depends on the specific purpose you have in mind.

To move on click on the icon at the top of the page that looks like this:

The images used in each learning unit have been carefully considered; high-quality images have been sourced in order to maintain visual interest and provide greater clarification to certain aspects of the module. Concepts are often introduced using interesting visuals. This striking image, captured by Time Magazine photographer Patrick Witty, depicts some of the faces in the crowd at the moment the South Tower fell on September 11, 2001. Witty later posted this image on a number of social networking sites in an attempt to track down these individuals and hear their stories. (Witty discovered that the Asian gentleman with the glasses should have been in the South Tower for a job interview, but was running late due to subway delays...).

Web & Digital Literacies

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The power of social media

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This iconic image was captured by international photograph editor for TIME magazine, Patrick Witty. It depicts the moment, on September 11th 2001, when the South Tower of the World Trade Centre fell, but who are the faces in the crowd?

A variety of **short clips** have been included in order for students to learn more about a *process* (e.g. how a Google search actually works), a *skill* (e.g. using basic HTML coding to create an online game) or a *concept*; in the example below '*Crowdsourcing*' is explained.

Web & Digital Literacies

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reCAPTCHA

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Watch this clip to discover what reCAPTCHA is all about and how Google have used it for a crowdsourcing project that you have been involved with, even though you didn't know it!



Getting involved...
A website entitled **Board of Innovation** has an extensive list of crowdsourcing projects that you can become involved in; some will even compensate you for your time! Click [HERE](#) to visit this site and see if any of the options sound exciting enough to explore further.

[To watch this specific clip, scan the following QR code].



Each learning unit also contains activities that students need to complete, a variety of websites they are able to access as well as a range of additional resources, should they wish to learn more about a specific section of a learning unit.

The completion of a predetermined task earns the student a Mozilla Open Badge designed for that particular set of literacies².

The first five learning units work through a set of 15 competencies with the final learning unit providing students with the opportunity to create something entirely of their own. Students are required to select at least three of the skills/ competencies that they most enjoyed from the preceding learning units, and then to use these to create the 'Ultimate Remix' – an artefact they are able to upload and share on the Web.

Explanation of the outcome/ impact/ results - Conclusions/ Recommendations

Through engagement with this, and other similar resources, anyone with access is able to grow and develop their range of digital and web-based skills. There is no longer a need for us to be limited to the role of *passive consumer* when, armed with even a basic knowledge of the *language* and mechanics of the Web, each one of us has the opportunity to design, collaborate and actively participate in the creation of content for the Web. This incredible potential, as well as the very real threat posed to the uninformed who access the World Wide Web, made the development of this *Web & Digital Literacies* MOOC an imperative; not only for me personally, but also for Varsity College and our students. The more we understand about the power, as well as the perils, inherent in the *digital*, the better equipped we will be to successfully leverage all that our 'online world' has to offer – the 'cloud' is the limit!

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² Mozilla Open Badges are discussed on p.4.

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Seventh Annual IIE Celebration of Teaching and Learning

2015 Celebration of Teaching and Learning

“Teach them to think”: describing experiences of Scenario Based Learning

Submitted by: Natalie Anne Emslie

Introduction: “teach them to think”

In an Organisation for Economic Co-operation and Development (OECD) presentation, journalism teacher, Esther Wojcicki, explicitly states “we need to teach them to think ...” (2012: 73). This is a powerful proclamation, and bears a particular resonance for the approach described in this paper. It may be argued that a central goal in tertiary studies, and specifically in degree level education, is ensuring that every student is given the opportunity to foster critical and independent thinking skills. Within this context, the purpose of the current paper is to articulate a need for educators to develop this required ability in their students using a Scenario Based Learning (SBL) approach. SBL design, as well as similarly Case Based Learning (CBL) and Problem Based Learning (PBL), is well-documented as an effective learning and teaching method in education.

Within this context, a description of the experiences of implementing SBL will be provided. It must be stipulated that this is not a typical research paper. Rather, the aim is to present a motivation and description of SBL in tertiary education, using a practical ‘World of Work’ example implemented in a lecture, and to reflect on the method from the perspective of the facilitator and the participating students. Finally, recommendations on SBL will be presented.

Motivation for SBL

SBL, as mentioned in the introduction, is an established learning and teaching approach (see Stanford University, 1994; Foran, 2001; CRLT, 2014). Generally, courses in “business, law, and [medicine] have for many years been based on the analysis of real world cases” (Stanford University, 1994). Overall, the aspect of SBL that is considered particularly novel, especially related to the approach followed at Varsity College, is the accentuation of learning before teaching rather than vice versa. In a traditional lecture, facilitators opt to explain theory first and then provide practical application activities afterwards (in the allocated session or in tutorials) where students are provided the occasion to apply the theory. In contrast, because the SBL method is student-centred, the approach urges them to engage with theory first. The students are involved in active learning, because they tackle new concepts independently or in groups, and are able to practice both their “analytical thinking and reflective judgement” within “real-life scenarios” or hypothetical instances (CRLT, 2014).

In addition, the role of the lecturer becomes even more important now than in the traditional approach. This is because the lecturer as facilitator is required to provide appropriate feedback, especially when concepts are misinterpreted, or not sufficiently applied or motivated and so forth. The facilitator must be able to ask suitably probing and critical questions that challenge students to evaluate the substantiation of their responses. This allows for the development of critical thinking skills, a sought after characteristic of degree graduates in the workplace and in post-graduate studies.

Description: steps to implement SBL applied to a 'World of Work' example

Scenario Based Learning or SBL is “any educational approach that involves the use of, or dependence upon, scenarios to bring about desired learning intentions” (Errington, 2010: 18). In SBL, the “scenario or situation” is the catalyst of the “learning experience” (Errington, 2010: 18). There are three dominant types of SBL used in tertiary education, namely problem based, issue based, and speculative based (Errington, 2010: 18). Due to the focus and scope of the current discussion, problem based scenario learning is briefly explained.

Problem based scenarios encourage students to “integrate their theoretical understandings with practical knowledge in demanding ways” (Errington, 2010: 18). Predominantly, carefully considered “decision-making and critical analyses” are foundational to this type of SBL (Errington, 2010: 18 c.f. Centre for Teaching and Learning, n.d.). The theory that informs SBL is situated learning theory (Culatta, 2013; Centre for Teaching and Learning, n.d.). Situated learning theory postulates that learning is harnessed through “social interaction” and is “situated”, namely that learning typically “is a function of the activity, context and culture in which it occurs” (Culatta, 2013 c.f. Stein, 1998).

Currently, the facilitator has designed SBL activities incorporated in to (and outside) the contact sessions on IIE degrees. These activities are named 'World of Work' or referred to as a 'Brain Workout'. The development of 'Brain Workout' SBL activities focus on being able to apply, but also focus on higher-order thinking skills such as analyse, evaluate, and/ or create (Krathwohl, 2002: 215). Similarly, the design of what is termed 'World of Work' SBL activities also demonstrate one or more of these skills, except applied in a simulated industry-related context within the field of media and communications.

While it is acknowledged that there are varying explanations on the implementation of SBL, The National Centre for Teaching and Learning, located at Massey University in New Zealand, five steps are followed. A specific example, from the module Applied Communication Techniques offered at third year level in the IIE Bachelor of Arts degree at Varsity College, is used as an example to demonstrate the five stages of SBL.

The first step is to establish the learning outcome. In this initial phase, the facilitator determines exactly what students must become proficient in, and using this outcome, develops the scenario to accomplish this (National Centre for Teaching and Learning, n.d.). The IIE assists in streamlining this process, since all modules developed state the outcomes or objectives to be achieved. The example used to demonstrate this approach is from learning unit 3 'Copywriting Techniques for Advertising and Public Relations', specifically outcome 6 states "explain the Goldilocks rule, and apply to a practical example". It is evident from this outcome that students must be able to clarify what the Goldilocks rule is, but equally should be able to apply this rule practically as well.

The second step involves choosing an appropriate format. At this point, the facilitator must select the medium of communication. For example, "face-to-face or online", as well as selecting prescribed and additional resources to meet the learning outcome (National Centre for Teaching and Learning, n.d.). For example, to achieve outcome 5, the facilitator implemented the scenario face-to-face. The reason for choosing face-to-face interaction is to provide necessary feedback and guidance to the students in a group environment, and also to allow the students to simulate the experience of pitching their ideas to a client in the communications industry. It must be noted; the end-product of the designed activity can actually be developed in digital format, and can be posted in a digital format as well. In terms of prescribed resources, the 'Goldilocks rule' is explained in the textbook for the course. In order to provide a brief visual introduction to the concept, before presenting the scenario to the students, the facilitator also incorporated an additional resource, a video clip on YouTube titled 'Fairy tales as short bedtime stories: the story of goldilocks and the 3 bears'. The intention here being to provide the visual learner with an association between what they read in the textbook about the rule followed in copywriting and the association indicated in the video clip; namely, a guideline about the appropriate length of copy. For instance, in the video clip Goldilocks exclaims, "This porridge is too hot, this porridge is too cold. Ah! This porridge is just right!"

In the textbook, the Goldilocks rule in copywriting is “not too short, not too long, but just right”. It is essential at this stage to develop a critical question, for instance to ask students to compare the similarities and differences between what Goldilocks says in the video clip compared to the actual Goldilocks rule in copywriting. This critical question provides an opportunity for the facilitator to gauge the preparedness of the student for the intended activity regarding if they have completed the prescribed readings.

The third step is to select a topic. It is recommended to make use of “critical incidents and challenging situations” in the field (National Centre for Teaching and Learning, n.d.). To encourage the students to demonstrate their understanding of what is a recommended suitable quantity of body copy, the facilitator identified a current advertisement with lengthy body copy that would challenge students to apply their knowledge of the Goldilocks rule to improve the copy using a ‘real-life’ example.

The fourth step is to pinpoint the “trigger event or situation”. This is the foundation and “starting point” of the formulation of the scenario. When developing the scenario, it is necessary to indicate appropriate time for “feedback and student reflection” (National Centre for Teaching and Learning, n.d.). In this phase, the facilitator utilised the advertisement with lengthy body copy (mentioned in step 3) as the basis for the scenario. This involved a ‘World of Work’ activity, where the hypothetical client (of the advertisement) approaches the agencies (students in separate groups) to improve the body copy. After each group presents their ideas (in a simulated workplace environment), there will be an opportunity for the facilitator to provide required feedback where necessary, and allow students to express their opinion (verbally and/or in writing) on their team’s execution of the activity (reflection). For example, the instruction to the students reads:

The client has approached your communication team to improve the body copy in their latest magazine advertisement. Following the Goldilocks rule, motivate/ justify to the client in the pitch what your team will keep and change in the body copy. Pitch your team’s idea to the client in the format of a print medium storyboard using the A3 paper provided.

The fifth step is to “peer review” the scenario. In this final stage, “colleagues” read the scenario to confirm that it is operational, and meets the expected outcome (National Centre for Teaching and Learning, n.d.). While advice from peers is necessary and valuable, in this scenario the facilitator opted to review the scenario herself. The reason for doing this is because the scenario is not particularly complex and it also afforded the facilitator time to ‘test’ the activity, and prepare possible solutions using the theory in the prescribed textbook.

Explanation of the perceived impact of SBL

Since 2014, the facilitator has incorporated SBL in lectures, and is therefore able to comment from personal experience on the success of the method, as well as the difficulties encountered and overcome. Additionally, a few selected comments describing the students’ perception is also included to illuminate triumphs and setbacks of the approach from their perspective.

Primarily, the facilitator’s experience of SBL has been positive in relation to three aspects. The first area concerns being able to assess students’ understanding better. Particularly, the most effective way to measure understanding is by observing students put theory in to practice. In so doing, the facilitator can recognise misinterpretations, and ask critical questions to encourage students to identify and solve their own misunderstandings. Also, the students as a group can learn from each other, especially from another student’s or group’s exemplary solution or approach presented.

The second element is their perceived preparedness for their profession. Providing real-life and hypothetical ‘World of Work’ scenarios encourage students to problem-solve and think critically about topics in a protected and non-threatening environment. In addition, students are also exposed to procedures and tools of their profession, where they can experiment with these and become more familiar with what may be expected of them in the workplace.

The third aspect relates to an improved ability of students being able to think critically and cope better when faced with problems or complex situations. This was most noticeable towards the middle of the semester, when students had developed the confidence to evaluate each other’s interpretations, directing more critical questions to their peers and the facilitator, and generally developing an ability to maturely agree or disagree with each other’s work.

In terms of difficulties experienced from the facilitator’s perspective, the main problem was encountering and managing a change in mind-set of the students. As with anything new, there was initial resistance. Specifically, students are expected and need to read their prescribed or additional resources before the lecture or risk falling behind in the planned SBL activities for the sessions. Furthermore, when designing a scenario to be completed outside of the contact time, this had to be interesting enough to encourage the students to complete the activity. Admittedly, there were occasions when the majority did not complete or attempt their prescribed readings, although providing extra time for the SBL in the lecture does circumvent this.

In addition, feedback about the students' experience of SBL comes from two sources. The first is the Student Evaluation of Teaching (SET) scores, and the second is open-ended questions asked to students. The SET feedback for the journalism course provides an indication about the students' experience of SBL. The three highest scores were achieved in the following categories in descending order: (1) "the lecturer asks questions that challenge you and make you think" attained a 4.82 rating (96%), (2) "the lecturer provides a variety of activities for you to do in class, that keep you engaged in the lesson and help you learn" scored a 4.64 rating (93%), and lastly (3) "the lecturer makes connections between what you are learning and the real world or uses practical examples that clearly illustrate what is being taught" received a 4.55 rating (91%).

These scores exemplify the value of implementing SBL. When students complete tertiary studies, and read towards a degree, it is imperative that they are being asked questions that confront what they already know, or challenge them. Generally, students will be more motivated to attend lectures, and interested in their learning, when they understand the value of activities. It may be argued that SBL creates a learning context that is student-centred and activity driven, and this assists them to become more actively involved with the course content as well as with their peers.

For instance, a few qualitative responses from the SET specifically related to the activities include the facilitator "provides great activities to help learn concepts with greater ease", "lectures are always informative, interesting, and fun", and "she does a lot of class activities to help us understand" (SET, 2015).

Furthermore, third year students in the Applied Communication Techniques module for the Bachelor of Arts in Corporate Communication were asked open-ended questions about their experience of SBL. Unfortunately, only two students chose to participate in answering these questions. This is attributed to multiple reasons, such as the facilitator asking questions at an inappropriate time (before the start of examinations), and not providing the students with a suitable timeframe to respond to the questions using e-mail. For this reason, these responses are not presented as generalised opinions of the entire group. Rather, this feedback must be recognised as two interpretations from the perspective of two students who chose to participate.

From the two responses received, it appears that the students are positive about the method. When asked to explain what they enjoy the most about using SBL, one student expressed, "I enjoy the fact that I actually understand the topics instead of just recalling them for assessments. It also makes the learning for assessments easier and less stressful as its easier to remember an action or activity interacted with then it is to remember one that is just simply taught" (Student 1, 2015). Another student stated, "It makes lectures more interesting [...] engaging with the work which will help us when we go into the real world. This also helps with answering questions in the exam as we can recall activities and examples rather than parrot phrase from the textbook" (Student 2, 2015). Both of these statements illustrate that SBL assists them in their preparation for assessments, especially tests and exams, because the activities aid understanding of abstract concepts and theory.

On the other hand, students were also asked to explain what they enjoy the least about SBL. Student 1 mentioned, “If they are overdone then it can take up a lot of time ...” Student 2 noted, “... it’s best to apply knowledge of work to activities such as analysing adverts rather than writing requirements out of the textbook”. Both of these comments are indicative not of the downfalls of SBL, but rather the facilitator’s ‘floundering’ use of the method. Both explanations highlight that the activities must be adequately contextualised or else the value of SBL can be missed.

The first explanation expresses that activities can be interpreted as time-consuming, and therefore it is important that when the scenario is introduced that the facilitator appropriately addresses the aim and outcome of the SBL, providing evidence for the amount of time that needs to be dedicated. The second statement again reinforces the importance of contextualisation, because when students are requested to “write requirements out of the textbook”, this is because these requirements or theory statements will be used as criteria for the evaluation of something, someone, or an idea and so forth. It may be argued that this feedback has illustrated that it is not necessary for students to write out this theory again, but rather to focus on practicing recording or writing down their applications or evaluations instead. In retrospection, the facilitator can confirm that the outcome or outcomes to each SBL activity should have been more explicitly indicated. Going forward, it is recommended to others opting to utilise this approach to ensure that the aim of each activity is clearly stipulated to each student before commencing the application, analysis, or evaluation of a provided scenario.

Conclusion and recommendations

SBL is an effective and easy to follow learning and teaching technique to use in tertiary level education, as has been illustrated with the ‘World of Work’ example used to clarify the implementation of the five steps. Furthermore, the explanation of the perception of the method from both the facilitator as well as participating students has also briefly provided a first-hand experience of the success of the approach. In future, as the facilitator, SBL will be integrated into all modules lectured, and it is also recommended that other facilitators incorporate SBL to improve the students’ learning experience, engagement with content, practical application and, most importantly, their critical thinking skills. In terms of development, it may be argued that SBL has provided the context for students to challenge themselves, and as Esther Wojcicki states “teach them to think ...” (2012: 73).

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Seventh Annual IIE Celebration of Teaching and Learning

2015 Celebration of Teaching and Learning

Read, Engage, Improve: An Action Research project Involving First Year Tertiary Students

Submitted by: Nazarana Mather

Introduction

Unpreparedness has a damaging effect on student success in South African (SA) tertiary education (Council for Higher Education (CHE), 2013). According to the CHE (2013, p.58) in a higher education context, there is an expectation on students, known as academic literacies which includes, amongst other things, the ability to understand and write academic texts, make meaning of what they read, understand and interpret metaphorical language and make inferences whilst reading. Unfortunately many students in SA arrive at tertiary institutions having had an inadequate early and high school education so they are “under prepared” for tertiary expectations (Mouton, Louw & Strydom, 2013) and may drop out as a result of poor academic progress. The purpose of this action research was to evaluate the use of reading logs amongst first year tertiary students to encourage them to complete their prescribed readings, engage actively with those readings, and read and write academically.

A reading log is a place where people can record their reading activity. It is a good place to encourage students to read their prescribed material and react to what they have read (Lombardi, n.d.). A basic reading log records hard facts like the title of the text, the date it was read and the number of pages that was read and is advantageous as it motivates students to read (weread.org, 2011). On the other hand, reading logs can be used to explore material in which instance students will be asked to write a synopsis of and personal reaction to what they have read. This type of log stimulates comprehension and critical thinking skills and was the focus of this study.

Motivation

It has long been established that many students enter tertiary institutions without being adequately prepared to write and read (decode and comprehend) at the appropriate level (Blacquiere, 1989; de Villiers & Rwigema, 1989). Adding to this, Bertram (2009) found that students were able to access their user-friendly learning guide but experienced difficulties with real academic texts. Bertram (2009, p.10) states that “at tertiary level students must be able to access, comprehend and critically respond to original text, and not only accessible learning guides.”

Academic texts include prescribed textbooks, journal articles, study or module guides and so on. These are discipline specific and require the student to understand the structures and conventions of the genre in order to facilitate understanding. In a study conducted by Mather (2015) it was found that the participating Intermediate Phase teachers did not expose their learners to a range of genres. Further to this, they viewed decoding and comprehension as two separate entities, rather than being two sides of the same coin whereby effective comprehension relies on good decoding but good decoding is not sufficient for effective comprehension (Bertram, 2009). Reading was understood to be primarily an oral performance and tended to focus largely on decoding text to speech whilst not giving comprehension the attention it required (Mather & Land, 2014; Mather, 2015). If a child’s reading skills are not adequately and progressively developed during the schooling years, he/ she will not be able to engage with the academic texts at tertiary level appropriately.

Higher education institutions prescribe reading material based on the assumption that the students are reading at a certain level, but in many instances the students are not able to read with the depth of understanding that is required. Boakye (2011) states that at tertiary level, academic reading demands a higher cognitive level of reading (Boakye, 2011) as universities expect students to make inferences, draw conclusions and apply what they have read to other contexts. According to Boakye (2011) tertiary success depends on the students' ability to read and write academically which is an issue because of the low literacy levels of students who enrol for tertiary studies. Furthermore, Sappington, Kinsey and Munsayak (2002) provide evidence that college students do not generally complete reading assignments.

In addition to students not reading at the appropriate level and not completing their assigned readings, a problem plaguing tertiary institutions is plagiarism. Plagiarism is the act of taking another's work or ideas and passing them off as your own. Denise (2010) states that, although plagiarism is not a new phenomenon, the digital era has created new opportunities for students to plagiarise and more problems for lecturers. Despite the use of plagiarism trackers such as *Turnitin*, there has been an increase in plagiarism and it has become a real concern in tertiary institutions (Denise, 2010). Possible reasons for students plagiarising could include insufficient or no referencing skills, poor comprehension of material or assignment brief, or inability to summarise or paraphrase academic material. Thus, it is time to take action and undertake innovative methods that would motivate and encourage students to read their prescribed material and assist them with their academic literacies.

Mathewson (1994) developed a model of attitude influence on reading and learning to read which addresses the role that attitude and motivation play in reading. The three components of the tri-componential construct that describe attitude are: the cognitive component (evaluation), the affective component (feeling) and the conative component (action readiness) which together influence the reader's intention to read (the primary mediator between attitude and reading) which in turn affects the reader's reading behaviour (Mathewson, 1994, p.1136). Furthermore, Mathewson (1994) explains that, "attitude toward reading includes evaluations of content and purpose, feelings about engaging in a particular kind of reading, and action readiness for initiating or sustaining reading activity." Reading here is defined as a "commitment to a plan for achieving one or more reading purposes at a more or less specified time in the future" (Mathewson, 1994, p.1135).

Within this model, emotional factors, prior knowledge, purpose, motivation and external motivators affect the attitude-reading relationship by influencing the intention to read (Mathewson, 1994). Whilst it is important to provide students with interesting texts to enhance their intention to read, sometimes students have to read texts which they may not necessarily find interesting. However, according to this model of reading, their interest can be evoked by identifying their purpose for reading the text, discussing the worthiness of its content and engaging them in conversation about their opinions and feelings toward what they have read.

The reading logs used in this study were designed to motivate and encourage the students to read regularly. Thus, based on the Mathewson model (1994), as described above, students were made aware of the purpose of reading which was reading to learn and to prepare them to enter the world of work. The students then had to provide a synopsis of the text and a personal response which would involve them evaluating the text's worthiness and their feelings and opinions based on what they read.

Adding to this, the nature and requirements of reading logs could promote and provide practise for academic reading and writing, paraphrasing, summarising and referencing which are all skills that are fundamental for academic and professional success. Zamel (1992) states that to enable students to engage, make connections with and contribute to texts; writing must be integrated with reading. According to Carlisle (2000, p.12) when students make notes in their reading logs as they read, they are encouraged to "interact with the text and tap into their individual responses to the literature." Furthermore, they will be provided with the opportunity to familiarise themselves with and practice using new concepts and terminology, which will facilitate understanding and the ability to apply those concepts when they enter the world of work.

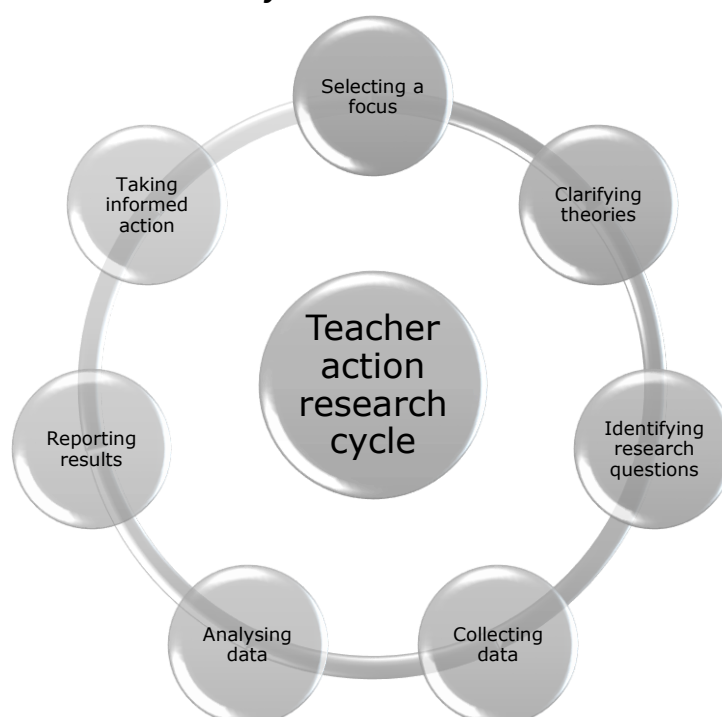
Description

Using the action research methodology, this study sought to evaluate the use of reading logs to encourage tertiary students to read their prescribed texts and improve their academic literacies. The sample consisted of a diverse cultural and socio-economic class of 17 first year students; five males and 12 females studying at a private tertiary institution in KZN. They previously attended a range of schools which included private, ex-model C, rural and home schooling.

Action research is different from other research styles because this type of research involves researchers researching their own practices (Christiansen, Bertram & Land, 2010). Sagor (2015) defines action research as being a "disciplined process of inquiry conducted *by* and *for* those taking the action. The primary reason for engaging in action research is to assist the "actor" in improving and/ or refining his or her actions." According to McMillan and Schumacher (2001) teachers use this style to research classroom problems. Adding to this, Mettetal (2012) states that action research can be used as a method of reflecting on classroom practice to find what works best for the teacher, with the aim of improving student learning. The goal of the action research would be to improve one's own teaching, in one's own classroom in a particular context and whilst the findings are not meant to be generalised, they can add to the knowledge-base and scholarship on learning and teaching (Mettetal, 2012). Thus, it is concerned with transformation and its ultimate purpose would be to improve educational practice (Christiansen et al., 2010).

Within the teacher action research style, the focus is on finding a solution to a classroom problem within the classroom context so rigorous control is not necessary (McMillan & Schumacher, 2001). It is based on the assumption that teachers are best equipped to conduct classroom research because they know best what happens in their classrooms (Christiansen et al., 2010). Action research requires a deep level of reflective practice and so consists of at least one cycle of action and reflection (Christiansen et al., 2010). This requires a practitioner who is reflective: someone who thinks systematically about practice (Schon, 1983). Action research involves seven steps which are described by Sagor (2015, n.p.) as becoming “an endless cycle for the inquiring teacher”.

Figure 1: Teacher action research cycle:



(Adapted from Sagor, 2015).

1. *Selecting a focus*

This step involves the researcher or group of researchers questioning the elements of teaching practice or the aspects of student learning that they wish to improve.

Having lectured at both a public and private tertiary institution I noticed that in both contexts my students experienced difficulties reading and writing academic texts. Specific areas of difficulty noted was reading independently to learn, referencing, paraphrasing and summarising. Furthermore, I noticed that most of the students that I lectured previously, did not read the prescribed texts. It was my observation that they skimmed through their prescribed readings when attempting an assignment and only actually attempted any active reading just before a test or examination. This was problematic because, amongst other reasons, classroom discussions became dull as the students did not participate and they struggled to read and write academically.

For instance, most students in the class in which this action research was conducted said that they did not always understand what the text was about, they did not know how to reference and experienced difficulties with paraphrasing. I discussed these concerns with colleagues and found that many observed the same with their students. Thus, the area that I wanted to improve in this study was the students' engagement with their prescribed readings and at the same time endeavour to improve their academic reading and writing skills.

2. Clarifying theories

This second step is where the researchers select theoretical perspectives, values and beliefs that will best suit their focus.

I decided to research possible reasons why these students did not read and methods that could be implemented to encourage and motivate students to read and actively engage with their prescribed readings. Most students said that they did not read their prescribed readings because they found them difficult, too long and boring. Some also said that they could not remember what they read at the beginning of the text by the time that they reached the end. Three students said that they did not have the time to read because they had part-time jobs and household chores.

At the tertiary institution where this study was conducted, lecturers design Integrated Curriculum Engagement (ICE) tasks that assess the students' understanding of and ability to apply concepts that they have learnt in class to real scenarios. The benefit of these ICE tasks is twofold; it helps students to actively engage with their curriculum which will assist them in their assessments; and it deepens their understanding of the material which will be of value when they enter the world of work. In this way, the lecturer is able to tailor assessments to a specific group of students within that specific context. Using this platform, I decided to design an ICE task that involved using reading logs for students to write a synopsis, personal reaction and questions about areas that they did not understand, for each of their prescribed readings. As such, their understanding of new concepts related to their future professions and ability to read and write academically, which are skills that they may also use in the 21st century workplace, would be evaluated.

3. Identifying research questions

The next step involves the researchers generating meaningful questions to guide the inquiry.

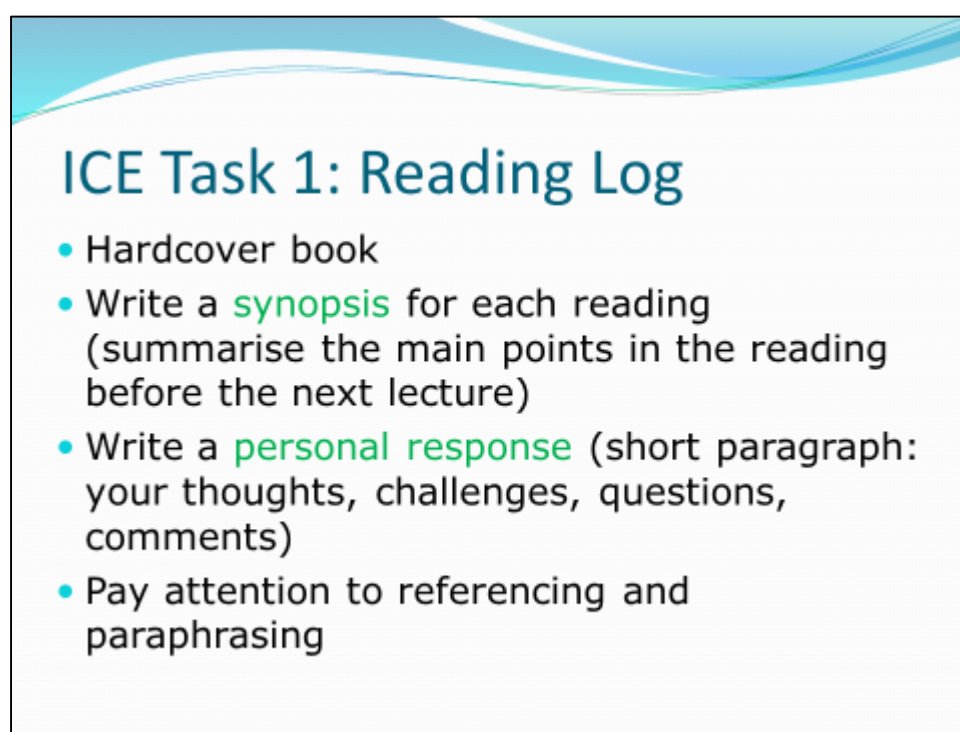
- i. How can reading logs be used to motivate and encourage these first year students to read actively and engage with their prescribed readings to improve their academic literacies?

4. *Collecting data*

The researcher must be effective and efficient in firstly, collecting data that is available in the classroom and secondly, identifying other sources of data like tests, projects, questionnaires or assignments. In addition to the data collected during class discussion and the completed reading logs, the students completed a questionnaire (Appendix E). The purpose of the questionnaire was to gain insight into the students' prior academic reading and writing development and their feedback regarding their experience using reading logs.

The first lecture for the module commenced with 'General Housekeeping' matters before commencing with the material prescribed for the first learning unit. The students were led through a PowerPoint presentation explaining the purpose and outcomes of the module, referencing techniques and the consequences of plagiarism, ICE tasks briefs and other assessments. During the explanation of the ICE tasks, a slide was included that described the reading logs that they were expected to complete. The readings logs were collected for evaluation and analysis after the last lecture for the module.

Figure 2: PowerPoint slide detailing instructions for students' reading logs



As can be seen, the students were assigned readings from the prescribed list for homework after every lecture. To ensure that the students were actively reading and practicing their referencing and academic writing skills regularly, they had to make an entry based on each reading in their reading log. Each entry had to include a summary of the main points of the reading, written in their own words and correctly referenced, a personal response to the reading and any questions or comments based on the reading that they would like to share in the next lecture.

After the last lecture, the students had to hand in their reading logs to be assessed and returned to them timeously so that they may use their entries to study for their examinations.

5. *Analysing data*

During this step the researcher should methodically sort, sift, rank and examine the data to answer the following two questions:

- i. What is the story told by the data?
- ii. Why did the story play itself out this way?

a. Class discussions

During a class discussion, almost all the students said that they do not read their prescribed readings before lectures because they found them too difficult, long and boring. Some said that they did not have enough time because of personal and work commitments. Almost all the students agreed that they could not understand what they were reading the first time because the words were unfamiliar and even if they read the text again, they still did not completely understand it. They were also asked to describe the materials they used when studying and environment where they studied. All the students said that they used their textbooks and module guides and highlighters and pencils. Some said that they also used writing paper to write notes and a few stated that they used a computer to make notes from their textbooks and module guides.

The students were asked to do an entry in their reading logs for each of their prescribed readings (a total of 17 readings) taken from their three prescribed textbooks. In almost every lecture the students had questions relating to their reading logs which included the following:

- How long each entry had to be;
- What they should write in the synopsis;
- Could they e-mail the completed log rather than print and submit;
- Why they should insert an in-text reference if they have used their own words.

On four occasions the majority of the students did not complete their entries because they explained that they either did not have time or they did not understand the reading.

b. Reading logs

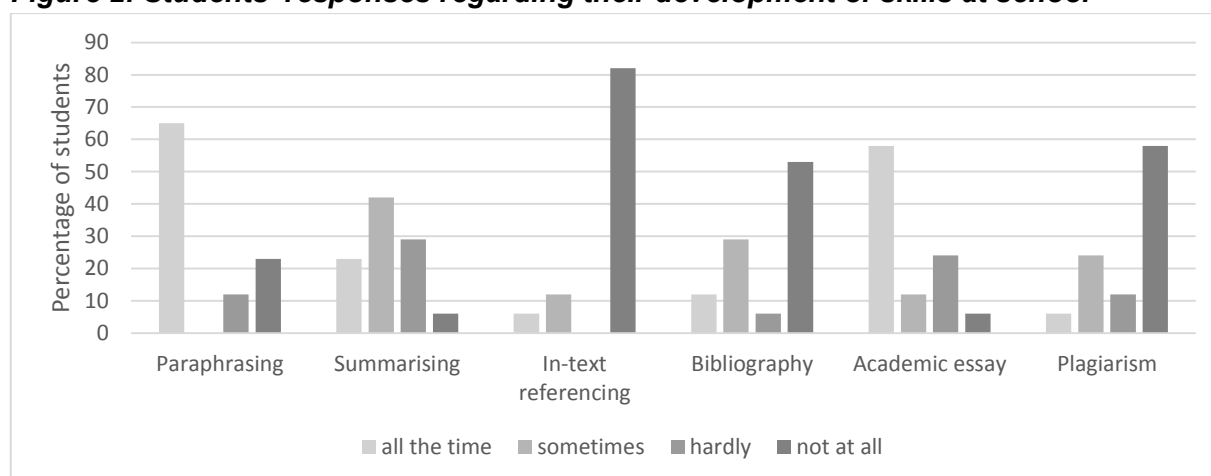
After evaluating the reading logs, five students submitted incomplete reading logs and three students failed to hand in their reading logs. The ones that were submitted took different forms. For instance, three students submitted electronic reading logs and one student chose to complete her log using detailed mind maps, drawings and tables. Others followed the prescribed format but differed as some chose to pay more attention to the personal response part with a shorter synopsis and vice versa.

Appendices A-D are examples of different students entries based on their prescribed readings that dealt with the concept of 'newsworthiness'. Appendix A is an example of a student who chose to do a mind map. Although there is no evidence of in-text references, this student included the author and page number at the top of the page. This entry demonstrates the student's engagement with industry related concepts and terminology such as 'deviance' and 'significance' and what those concepts mean in that particular context. The second example provided, Appendix B, shows the student paraphrasing what was read in the prescribed text. This student also demonstrated an attempt of in-text referencing. Appendix C is an example of a reading log that was submitted via e-mail. The student summarised the text, demonstrated an understanding of referencing and provided questions that arose as a result of engaging with the text. The last example, Appendix D, like Appendix A, shows the student's engagement with new terminology and concepts like 'deviance' and 'significance' but by paraphrasing and summarising using a note-taking format.

c. Questionnaires

After analysing the questionnaires (see Appendix E) that the students completed, it was evident that their schooling was lacking in terms of the specific skills included in the questionnaire. The figure below represents graphically the percentage of students indicating that they had been taught particular skills and to what extent:

Figure 2: Students' responses regarding their development of skills at school



As can be seen, their teachers emphasised skills like summarising, paraphrasing and writing academic essays but most students had no exposure to in-text referencing, compiling a bibliography and avoiding plagiarism. All these skills ought to have been progressively developed during their schooling years so that when they enter tertiary, they can focus on adapting to the new environment and the content of their modules. However, the reality presents a different picture which means that in their first year at tertiary, these fundamental skills needed to be emphasised and developed to try and compensate for their deficient schooling. At the tertiary institution where this research was conducted, workshops are held for all first year classes to make them aware of tertiary expectations, how to compile and format an assignment, referencing skills, plagiarism and examination techniques.

Thereafter students complete a *Development Assignment* to demonstrate their understanding of and ability to apply those skills. After the assignments are assessed, the specific areas that require attention are identified and follow up workshops are held. Adding to this, during their lectures there needs to be ongoing instruction and integration of these skills. In this way they will be acquired in context which will enable the students to see their relevance and importance, actual examples, and be provided with the opportunity to practice those skills so that they are adequately prepared for their assessment tasks.

It was interesting to note that most students indicated that their teachers emphasised paraphrasing and summarising but they had not read journal articles at school. Different genres, have a specific format and language, the knowledge of which is important to facilitate comprehension (Mather, 2015). Journal articles are a valuable source of information for tertiary students to obtain extra information or different points of view on a particular topic, if students know how to access them, how they are structured, where to find specific information and how to critically evaluate the content. Whilst textbooks are generally prescribed, journal articles form part of recommended and additional reading lists. If the students had not previously engaged with journal articles they might struggle to understand them and, as a result, summarising and paraphrasing would be a challenge, or alternatively they may default into accepting and regurgitating whatever they read.

In this questionnaire that the students completed after submitting the reading logs, most said that they found the completion of their reading logs to be time-consuming and difficult but found that they were more aware of the importance of avoiding plagiarism, how to do in-text referencing and compile a bibliography and they had summaries to use to assist with examination preparation. Below are some of the students' responses to the question: *Any other thoughts on your experience with reading logs* (Appendix E, page 2).

Student A:

They were useful but very time-consuming and I often found myself using exact phrases because I did not understand the reading and to save time and effort.

Student B:

I felt like the reading logs were a very good idea but the amount on top of the other work was too much.

Student C:

They are very time consuming but helpful at the same time because you are able to summarise the log with your own understanding.

Student D:

It was helpful and it did help me pass my module.

Some suggestions for the future use of reading logs as provided by the students in the questionnaire follow, and have been taken into consideration for future improved practice.

Student 1:

Just need to scale the amount down.

Student 2:

Shorter summaries

Student 3:

For exam purposes you are able to study easier from your reading logs.

Student 4:

They should be spaced out more so maybe only 2 or 3 every week as some are lengthy.

6. *Reporting results*

The reporting of action research most often occurs in informal settings, where ideas are exchanged and evaluated. Recently, there has been an increase in the number of teachers who write up their action research for publication. Thus I have shared the findings from this study with colleagues, have been accepted to present these findings at two conferences and have submitted this paper for publication.

Conclusion

7. *Taking informed action*

The last step of process is where the teacher takes whatever they have learnt from their data to plan for future lessons. Through reflective practice, those measures will be evaluated and the action research cycle will continue (Sagor, 2015).

In an earnest endeavour to help encourage my first year students to engage with their prescribed reading and improve their academic literacies, I embarked on this action research project. The use of reading logs to encourage and motivate students to read actively and engage with their prescribed readings was highlighted by this study. These reading logs were valuable as they provided the opportunity for the students to actively engage with their prescribed material and create awareness amongst these students around referencing, summarising, paraphrasing and academic writing skills, and provided the students with the opportunity to practice those skills. However, expecting first year students to copy the brief for the reading logs from a PowerPoint slide and to complete seventeen reading log entries independently was a bit of a high expectation. The following areas which emerged from this action research study will influence my future use of reading logs as a tool for learning, teaching and assessing.

Implications for improved practice

- a. Make the brief for the task explicit and clear. Students must also be made fully aware of the purpose of the reading logs.
- b. The brief and assessment criteria will be typed out in detail and given to the students for their reference.
- c. Students will be guided through the process of writing their reading logs. A way in which this will be achieved would be to give them an example of a synopsis of one of their prescribed readings and then ask them to note things that they still do not understand, and a personal response to the reading. Next, a classroom discussion of a reading will be held and then they will be asked to answer questions which are designed to form a synopsis. They can also write down additional questions that they may have and a personal response. Following this, the students will read, discuss and complete a reading log entry in pairs and then, the next one individually in class. Finally, readings will be selected for the students to do on their own for homework in preparation for the lecture.
- d. Another good idea would be to arrange with the librarian to hold a workshop on searching databases to find credible information, particularly journal articles. Then ask the students to go to the library to access a credible journal article that is linked to one of their module outcomes and complete an entry in their reading logs for the journal article that they selected.
- e. The manner in which the students structure the layout of their logs will not be prescribed but guided. Therefore, students would be allowed to be creative and original when completing their logs because it is for their study purposes so they need to complete it in the way that would best suit their learning style.
- f. Referencing and paraphrasing must also be included in the marking rubric criteria.
- g. The students' reading logs will be checked periodically as opposed to them handing in a completed log a week before lectures end, as I had done. There are two reasons for this. Firstly, the purpose of this reading log was to encourage students to read regularly, improve their referencing, paraphrasing and academic reading and writing skills, so if it is only checked at the end it would be too late to develop and correct the students in the necessary areas. Secondly the reading logs were supposed to encourage the students to read the relevant readings before the lecture. Because they were only checked at the end of the module, some students left the completion of their logs till the end so this purpose was defeated. Also, common areas of difficulty with and interest in particular concepts in the reading could be identified and an online discussion forum could be created for all the students to share their ideas. Lastly, part of the brief was for students to note areas that they still did not understand. Regular written feedback would help in this regard, especially for those students who are shy to ask questions in class.
- h. All students should be encouraged to complete and submit their logs electronically as this would save paper and time, and develop their use of technology which is essential in the 21st century workplace.
- i. The reading log does not have to be used for assessment purposes as it is also a tool for learning.

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Appendix A

Pg 242 - 247 (Barker)

Criteria 4 Newsworthiness

* It is natural 4 humans 2 survey 1 land/ enviro. but our views of what is deviant & socially significant depends on our culture.

DEVIANCE

• Unusual news events, ppl or things that c/ contrary 2 social values, norms or expectations, can be good/bad.

3 theoretically distinct components of deviance that r relevant 4 determining a news item's newsworthiness

① Statistical Deviance: 1

likelihood of a news event actually happening. The more unlikely event, the more statistically deviant it is. Eg 9/11

② Potential 4 social change

Deviance: 1 event's potential

2 threaten/change 1 status quo

@ a local, regional, nat. / int. / level

Eg. Nelson Mandela's release 4rm prison

• Reported on 1 front page

③ Normative Deviance: A

behaviour, attitude, / opinion that violates / breaks a social collective

thing norms, rules or laws. Eg. Child abuse is normatively

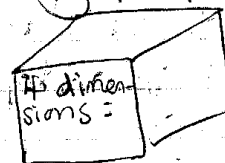
Social Significance

• Whether a news item deals w/ an event, institution / person that is considered -NB / has an impact on a certain social collective.

↳ Not necessarily unusual

↳ Has deeper meaning 4 society collectively

↳ Based on specific cultures.



① Political Significance

↳ 2 what extent 1 release affects 1 relationship between PPL & GOVT. Eg. ANC & corruption

② Economic Significance

↳ 1 extent 1 release has potential or actual impact on exchange of goods & services. Eg. Strike

③ 1 extent 2 which 1 release

impacts a social system's traditions, instit. & norms.

Eg. Religion, ethnicity & arts.

④ Public Significance: Enhancement

or threat a release has on public's well-being

deviant

Appendix B

No.

Date 25 07

Reading: Scher, what do we mean by Newsworthy
Pages 41-47

Summary

Writing something that is interesting & valid.
no-one wants to write a boring article.
This reinforces the importance of knowing the different
media & their needs.

All news editors have their own views on what is
the most important news on a day-to-day basis, &
in the case of Radio & 24-hour television stations
on an hourly basis.

"It is what happens today that counts."
People like to read news that relates to them.
"Human interests".

Scandals & sensationalism get sold to people, why?
Profit seeking people (Scher, 2009).

Critical Response

This Reading was interesting, it is good to find
out what will & what won't sell.
making a profit is very important as well
a giving correct information.

Appendix C

31/07

NEWSWORTHY

Scher – Pages: 41-47

Summary

Editors want to pass on information to their audience that will make them sit up and think, talk to their friends and enrich their lives. That's the essence of 'NEWSWORTHY'. Everything that can be written has already been written and people are tired of reading the same subjects all the time.

What is news to one person isn't always news to the other. All news editors have their own views on what is the most important news in a day-to-day basis. (Scher, 2009)

Whatever affects a large number of people is newsworthy. Scher (2009) states that people like to read news about people and happenings that are close to them. And are interested in the unusual and bizarre.

We are never short of conflict, whether it's between rival organisation competitors, there's always conflict to report on all the time. (Scher, 2009)

Scher, M. (2009). *Surviving the SA media*. Randburg: Knowres Publishing.

Critical Response:

1. What does it take to get the juiciest story which qualifies as 'NewsWorthy'
2. Does one have to travel to get breaking news of the month
3. Consistency seems critical towards searching for 'NewsWorthy' story for a specific type of audience.

Appendix D

28 July 20

Barker (2013)

Page 242 - 247

Summary

Public relations practitioners make use of controlled media. The best method of communicating with large audiences is through mass media. It is important for practitioners to understand role of information, various kinds of media and how they work.

Newspapers are the work-horses of public information system. They are able to ~~disseminate~~ disseminate information, set the agenda and focus people's attention on certain issues.

Magazines are also very popular. Advantages of them are that opinion leaders read them, they provide durable information and can reach readers with a specialised interests.

Radio offers a wide range of publicity possibilities as a mobile medium that addresses mobile audiences. It possesses qualities of a direct, personal contact because it uses the spoken word.

Television attracts huge audiences and for many people it's the main source of information.

Shermaker theorises that biological forces prompt human beings to attend to unusual events and occurrences in environment and need for surveillance is genetically programmed in humans. News item can be both deviant and socially significant.

Deviance refers to news items that are unusual, different or odd. Social significance refers to whether

a news item deals with an event, institution or person that is considered important, or has an impact on, a certain social collective.

Planning a public relations campaign not only helps give direction to campaign but also helps win support from top management. They inform, create awareness of or persuade publics on certain issues or organisational activities.

Appendix E

Questionnaire**a. General:**

1. How old are you? _____
2. Which high school did you attend? _____

b. Academic reading and writing

1- All the time 2- Sometimes 3- Hardly 4- Not at all

My school teachers emphasised:	1	2	3	4
paraphrasing				
summarizing				
in-text referencing				
compiling a bibliography				
academic essay				
avoiding plagiarism				

At school we read:	1	2	3	4
Textbooks				
Poems				
Journal articles				
Media materials				
Visual texts				
Stories				

At school we wrote:	1	2	3	4
Narrative essays				
Descriptive essays				
Information reports				
Academic essays				
Journal entries				

c. Reading logs

I found the completion of the reading logs	1	2	3	4
Useful				
Interesting				
Helpful				
Easy				
Time consuming				
I used my reading log as an assessment preparation tool				

The reading log has helped me improve my:	1	2	3	4
understanding of academic texts				
paraphrasing				
summarising				
in-text referencing				
compilation of a bibliography				
plagiarism				

Any other thoughts on your experience with reading logs:

Any other factors that you think should be taken into account for the future use of reading logs:



Seventh Annual IIE Celebration of Teaching and Learning

2015 Celebration of Teaching and Learning

A “Flipping Model”

Submitted by: Sanisha Hurriskunker

Introduction and motivation of the topic

At Varsity College (VC), the teaching and learning vision is to shift from lecturer centred to student centred learning experiences. The “flipped Classroom” has been selected as the overarching pedagogical approach in order to realise this vision. There are a number of variations of a definition of the flipped classroom. Some definitions focus on the reversal of roles between student and lecturer, and use various platforms to extend the learning outside the classroom and other definitions focus on the reversal of learning activities, where the “homework” element takes place in class and the lecturing element takes place outside the classroom (The flipped Learning Network 2013; Khan 2011, Bishop and Verleger 2012 and Educause 2012). The common denominator in most definitions is the “blend” between face-2-face and online learning and the key principles extracted from the definitions focus on the lecturers’ responsibility to get students to take on an active role in creating an understanding of the learning content and to create opportunities for students to practice the application of that understanding. To achieve this, a number of interactive teaching techniques are available, most of which are variations/ extensions of active learning. Over the years, the Academic development co-ordinators have been developing the teaching skill around interactive teaching methods; however, the “flipped classroom” is a novice concept for most lecturers at VC. Therefore, its implementation may be a rather overwhelming experience due to the many complexities involved. Given this reality, as an institution, we cannot simply rely on ad-hoc developmental interventions to support the adoption of this pedagogical approach. We have to actively engage with lecturers and understand the factors that are prohibiting and or constraining the implementation of the flipped classroom as a pedagogy and provide the necessary support or interventions to address the concerns. Although there is vast literature available that may provide general best practice principles, contextualising these principles within a VC context may prove to be more beneficial. Furthermore, integrating this theory with the practical experience of the lecturers currently experimenting with this pedagogical approach enhances the relevancy of the best practice principles available in academic literature.

Given the above, the purpose of this paper is to design a model to facilitate and support the adoption of the flipped classroom. The approach to this study will be to first review existing research to extract principles of best practice, to secondly identify challenges and success experienced by lecturers thus far in the process of “flipping the classroom”. Thereafter, to use the insights gained from both these steps to create a proposed framework that will guide lecturers and academic support staff at Varsity College to shift the focus from lecturing to learning.

Description of the topic

The flipped classroom explained

The flipped classroom is a pedagogical model that swaps traditional classroom activities with homework (Khan 2011), Bishop and Verleger (2012) define the flipped classroom as an educational technique that consists of two parts: interactive group learning activities inside the classroom, and direct computer-based individual instruction outside the classroom. Educause (2012) elaborated on this view explaining that the student is required to gain an understanding of the content before arriving to class, in order to be able to engage with learning activities during class time, thereby deepening their understanding of the relevant concepts. The notion of the flipped classroom draws on concepts such as active learning, student engagement, blended learning design and course podcasting. The flipped model puts more responsibility for learning onto the students (Educause 2012).

In reviewing these definitions, it is safe to conclude that the underlying principle and intent behind the flipped model is simply to transform teacher centred classrooms to student-centred learning environments within the classroom that provides students with the maximum opportunity for deeper learning experiences. However, the level of productivity and success achieved in the classroom is heavily dependent on the level of preparation on the part of the student. Given the infancy of this culture in the South African Education context (both at school and tertiary level), the design of the learning activities for completion before, within and after face-to-face time is critical. There are a number of active learning teaching techniques that can be used to craft an effective learning design; however, the selection of these techniques will depend on best practice principles for the implementation of the flipped classroom as well as the learning and teaching context and strategy at Varsity College. These two aspects combined will be the factors that drive the adoption of the flipped approach and will be elaborated on in the section to follow.

Factors that drive the adoption of the Flipped Approach

The Flipped Learning Network, is a collaboration of seasoned educators that collaborated with Pearson's School Achievement Services (2013) and identified the "Four Pillars of F-L-I-PTM (Flexible environment; Learning Culture; International Content and Professional Educator.) These points will be briefly elaborated on as follows and each "pillar" will be followed by an application of the principle to the VC context:

1. **Flexible environments:** This pillar refers to the need to re-arrange the learning space to accommodate a collaborative and active learning environment. Related to this factor is the need for lecturers to become comfortable but also skilled in managing the “chaos” that may prevail in such a manner that despite the lack of traditional control, productivity is maintained.

The VC Context and obstacles to the principles related to making the environment flexible:

- There are a few factors hindering the transformation to a fully-fledged collaborative learning designed classroom. Potentially, the most significant is the substantial amount of investment required (given the required furniture, equipment and technology). Such an outlay of capital will possibly only be warranted if the adoption to this culture becomes evident to such an extent that the lack of facilities becomes a significant obstacle to progressing with the implementation of the flipped approach. Therefore, until VC gets to that point, with a little bit of creativity, an interim solution may be possible without intensive budgetary demands. It is important to find a way to achieve this as it is believed to play a significant role in shifting the culture of teaching-centred classrooms, the second “pillar” which will be addressed next.

2. **Culture shift:** This pillar refers to the mind shift in learning and teaching culture required on the part the students, lecturers, IIE and VC for the adoption of the flipped approach, more specifically, student centred learning and teaching.

The VC Context and obstacles to the principles related to making the culture shift:

At VC the strategy around the implementation of the flipped approach is not driven in isolation from blended learning. A simplistic definition of blended learning is the combination of online and face-to-face mode of delivery (Newcombe 2011). In principle, both blended learning and the flipped approach strive to enrich the students learning experience through technology based learning activities taking place both in and outside the classroom. As a result, this deems the nature of the shift in culture from teacher centred classrooms to the blend and/ or the flipped approach, technology based organizational change. The term “organisational” change is being used because the extent of change is not limited to “life in the classrooms”, but VC as an educational organisation.

A study by Hurriskunker (2012) focused on sourcing a model to drive adoption blended learning on the PE Campus, by integrating, the Technology Adoption Model (TAM) of Venkatesh (2005) and Kotter's (1998) Model for organizational change. In essence, Kotter (1998) explained that by creating urgency for the change and providing the adequate support and incentives, change adoption is likely to be successful. TAM provides examples that perceived usefulness and perceived ease of use is required for individuals to have a positive attitude towards the desired technology based change and that this in turn leads to behavioural intent to use the new technology, which leads to adoption of the change. These models were further contrasted against campus specific issues. The responses to the questionnaire showed that blended learning as a teaching methodology was perceived as useful, but it was believed that student characteristics and learning behaviours were barriers to the use of blended learning. In addition, the respondents (being the lecturers) believed that teacher-centred learning was best suited for the nature of student's learning habits' at the time. The respondents indicated that they needed leadership and mentoring for the utilising of blended learning and that evidence of the positive impact on a student's learning experience appeared to be the most effective motivating factor for blended learning adoption. These are critical aspects that will need to be factored in when constructing the model to adapt to a flipped approach to learning and teaching.

3. **Intentional content: Educators are required to carefully plan and design the flow of learning. The learning design should incorporate activities for “preparation before class”, during class and after class. The aim should be to make the learning experience as interactive as possible.**

The VC Context and obstacles to planning an effective learning design for the flipped approach:

At VC, Academic Development Co-ordinators have been driving and supporting lecturers to build their interactive teaching skills. Results from peer reviews indicate that there has been an improvement in making a slight shift from purely “traditional chalk and talk” to a slightly more interactive lecture style of teaching. Obviously we have a long way to go before we achieve a change to more student centred learning experiences. In addition to planning “What do I have to teach?” lecturers also need to be empowered to answer “How best will students learn this content?” However, this is easier said than done. The extent of the students' lack of willingness to engage in such activities is becoming a serious concern and research driven solutions to this are now overdue. To further illustrate this point, below is a table showing feedback from a class taught by the author in the first semester 2015.

This information was gathered as students were not engaging well with activities in class, they appeared to be bored despite the nature of activities planned and carried out (activities were based on movies (JOBS (leadership); Social Networking (Facebook); Reality TV shows: The Lion's Den, The History Channel: showing the evolution of business (a far more sensationalised version than what was found in the textbook.) The data below provides a good basis for further enquiry and investigation on how to improve on the lesson design.

Table 1: Data obtained from a first year class at VC, investigating reasons for a lack of participation in learning activities both outside and inside the class.

respondent	Q1: I am willing to prepare for lectures using the							Q2: During class I want to be doing to the following						Q3: I would prefer the following for study				Q4: I don't do homework because:						
	Voice recorded PP read TB and note Q's to be asked		Activities on VC Learn researching interesting topics	complete activity before class in a group	I don't have time to prep	other	simple test like activities	solving complex problem that challenge me	Using devices to research new topics related to the chapter	play learning games/have debates	listen to lecturer explain while I highlight/make notes	None of the above	Lecturer should make notes as it's easier and more reliable	show me how to make my own notes	don't need notes, I learn from TB	other	I don't have time	It's sometimes too difficult	I don't have the resources	not interesting enough for me	I forget to do it	not for marks so not worth it	I usually do my homework	
	a	b	c	d	e	f	g	a	b	c	d	e	f	a	b	c	d	a	b	c	d	e	f	g
1	1			1							1	1		1										1
2	1	1		1				1		1	1			1										1
3		1										1				1		1						
4			1	1				1				1		1		1		1						
5	1											1		1										1
6	1											1		1					1					
7	1			1							1			1				1						
8	1			1	1			1	1					1				1			1			
9			1	1				1	1		1			1				1		1				
10						1					1			1				1						1
11	1					1						1		1				1						
12	1									1	1			1						1	1			
13	1											1		1										1
onse	9	2	2	6	1	2	0	4	2	2	6	7	0	12	0	2	0	7	2	1	2	3	0	5
respo	69	15	15	46	8	15	0	31	15	15	46	54	0	92	0	15	0	54	15	8	15	23	0	38

It was encouraging to see that 69% of students indicated that they are willing to prepare for lectures using voice recorded PowerPoints, however of that percentage 23% indicated that they do not have the time for homework. Therefore further investigation is needed to understand that contradiction. During class time, 54% would prefer the traditional lecturer style over active learning and of that percentage 15% would like activities to accompany the lecture/explanations. Ninety two percent of the class preferred notes to be handed out to them instead of learning how to make their own notes, with 15% indicating that they study straight out of the textbook. (Included in the 15% is one student that selected both to have notes prepared by the lecture and the option to study out of the textbook). Only 38% of the class currently complete tasks assigned to them and 54% claim to not have the time for homework.

It is not the intention to generalise this data to a wider population of students. Instead, the point to be made is that student readiness is a concern, and in order for lecturers to plan an effective blend of online and face-2-face elements or to plan a design for the flipped approach (with or without an online component) it is imperative that they investigate the learning preferences of the students. For example, in reviewing these statistics the author (who is also the lecturer in case) would make two immediate changes. The first would be to give thought to an effective (and if possible non punitive) consequence of students not completing homework. Currently, when students have not completed the work required of them, (with the exception of ICE TASKs) a contingency plan is made in class for them not to be lost or left behind. This, potentially, perpetuates the poor work ethic. Secondly, as it appears, there are, potentially, more of the quieter, reflective students in the class, therefore the nature of the activities should be less collaborative, and allow for a gentle form of research, reflection and feedback. These changes may not necessarily be the solution, but this is the nature of the “game” – trial and error; check and change.

4. **The final “pillar” is that of Professional educators: The principle highlighted here is that the instructional videos used for flipped classrooms cannot replace trained, professional teachers.**

The VC Context and reservations around instructional videos as a means to extend learning outside the classroom:

Both The IIE and Varsity College have reservations about using instructional videos as a means to extend learning outside the classroom. While we support the notion that if videos are used they do not replace or compensate for the lack of a teaching craft, the concern is that videos/ voice recorded PowerPoints are not necessarily aligned with the principles of a constructivist pedagogy and is in fact a primarily a form of passive learning. Therefore, the pedagogy behind the learning design on the institution’s LMS, is constructivist based, requiring students to engage in a learning process allowing them to construct, at the very least, a framework of understanding of the learning content.

Explanation of the outcome/ impact/ results

The four pillars discussed in the section above certainly provide a basis on which to construct a model to guide the implementation of a flipped approach at Varsity College. However, as is evident from the discussion above, the application of these principles to a VC context is more complex than what meets the eye. The factors that will drive the desired adoption are contrasted against the contextualized challenges in the table below. Alongside these key components to form the model will be extracted.

Table 2: Outcome of the discussion on the topic

Pillar 1: Flexible Environments	VC Classrooms are equipped with a wireless facility that may support internet based activities or research; however, the set-up of the “lecture style” classroom is not ideal, when driving such shifts in teaching approach. To use the words of the Academic Manager at VC, “student’s need to walk into the venue and immediately feel that something different and exciting is going to happen here today”	While budgetary constraints limit the desired transformation, campuses should, at the very least, select a few classrooms where appropriate and re-arrange the desks for collaborative learning. Further to this, lecturers need to be supported in the process of dealing with the chaos that comes with this approach. It is the author’s opinion that while one can learn from existing literature on this topic, experience through trial and error is going to be the best educator. It is therefore imperative that learning network be established for pathfinder lecturers to connect and share best practice.
Pillar 2: Shift in Culture	Ad-hoc, isolated attempts to build skill in this approach are not going to be effective. Factors prohibiting adoption need to be investigated and addressed.	Hurrisunker (2012) constructed an adoption model, for blended learning based on Kotter’s model for organisation change and TAM (the technology adoption model). The model is explained in section 2 above. This blended learning adoption model can be adapted for this purpose. The key assumption of the model is that if a lecturer has a positive attitude towards the desired change, he/ she is likely to have a behavioural intention to adapt to the technology based change. Therefore, the model for this study will need to indicate the factors that will deem the flipped approach useful to learning and be perceived as easy to use.
Pillar 3: Intentional Content	Although the results were gathered on a very micro scale, the feedback gathered from the author’s students of BMNG5111 provided a strong indication of the student’s lack of readiness for the “flip”.	Considering this, it is suggested that campuses and lecturers engage in relevant and reliable research to better understand the depth of student readiness and to cater for barriers where possible.
Pillar 4: Professional Educators	At the IIE and VC, videos will never replace professional educators.	The use of videos are seen as a form of passive learning and is therefore not preferred as part of a constructivist pedagogy.

In conclusion, the following principles are extracted from the summary above, to form the model to drive the flipped classroom approach.

1. Classroom re-arrangement (however, this must be done in collaboration with lecturers that will be impacted on this change, and where possible to also include a focus group of students. This will assist with lecturer buy in.
2. Learning network for pathfinder lecturers to share learning experiences from trial and error.
3. Extract elements that drive technology based organisational change for learning institutions from the Blended learning adoption model.
4. Student readiness for interactive teaching in and outside the classroom requires action research. Therefore, it is suggested that a task team be put together to research and experiment with a “scaffolded” implementation of blended learning and the flipped approach, where first year is dedicated to skill building and getting students’ buy in and settlement into the culture of interactive teaching. Perhaps it may be best to have a separate task team for each year/ level of student that works collaboratively, but has the relevant focus.
5. A concerted and strategic drive is needed to create hype and urgency for a constructivist learning design. VCLearn is a “ready-made” tool to drive this, but is currently still in its infancy stage. A task team led by relevance leads in the VCLearn space, but also includes lecturers and selected students who are needed to collaborate to drive this adoption. Students are required as, when a select handful is convinced of the power of VCLearn, the power of “viral marketing” kicks in and can potentially be the tipping point in the adoption process.

Conclusions/ Recommendations

Using the principles discussed above, the following model is proposed:

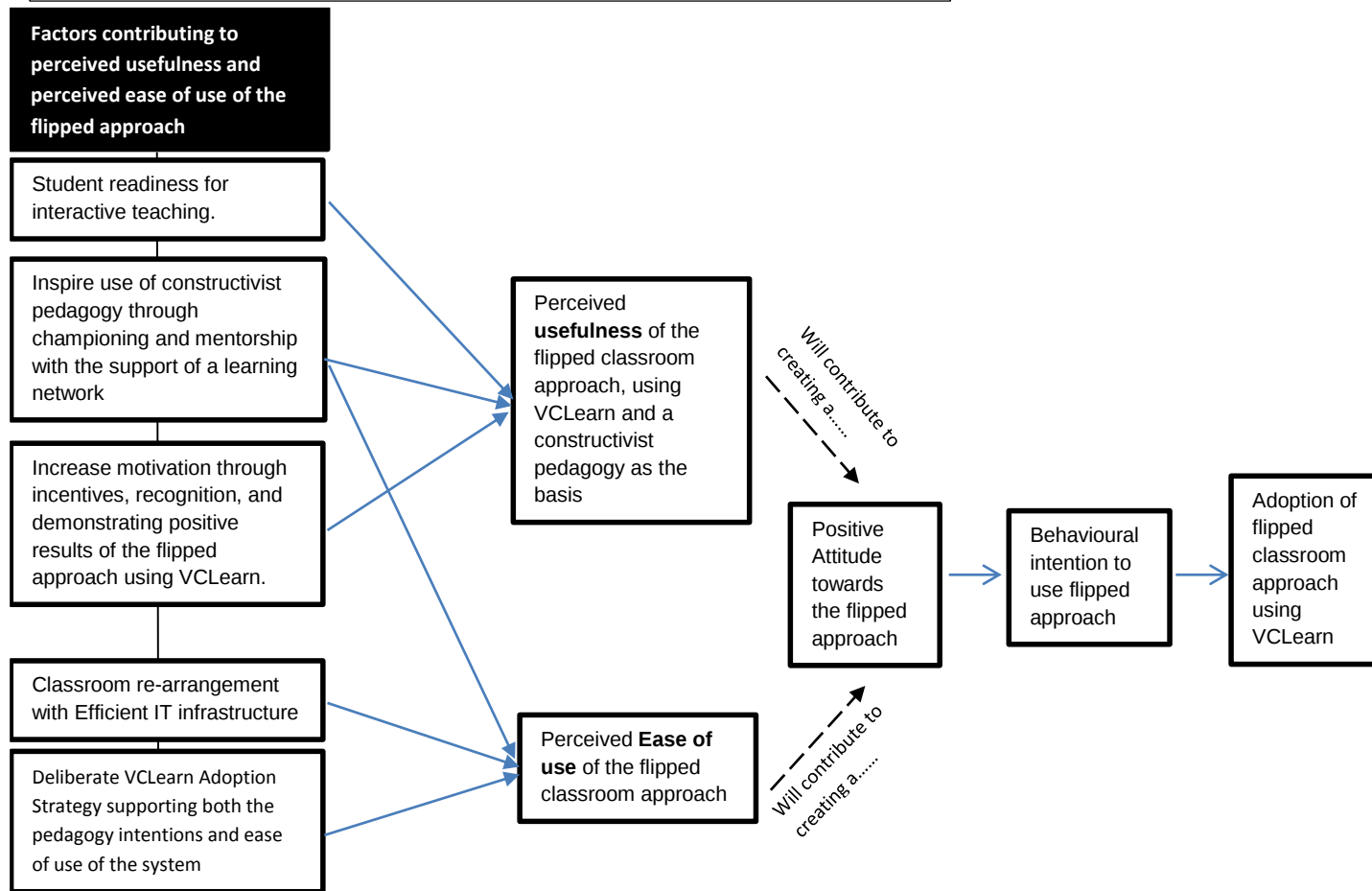
The following factors/ actions are proposed to contribute to lecturer’s perceived usefulness and perceived ease of use of the flipped approach.

- Student readiness for interactive teaching;
- Inspire use of constructivist pedagogy through championing and mentorship with the support of a learning network;
- Increase motivation through incentives, recognition, and demonstrating positive results of the flipped approach using VCLearn;
- Classroom re-arrangement with Efficient IT infrastructure;
- Deliberate VCLearn Adoption Strategy supporting both the pedagogy intentions and ease of use of the system.

Drawing on the conclusions of the adoption model for blended learning (Hurrisunker 2012) if lecturers perceive the flipped classroom approach as having a positive impact on the student’s learning (i.e. perceived usefulness) and perceive the approach as easy to use, then they are likely to have a positive attitude towards the concept of the “flipped Classroom. This positive attitude is likely to influence a behavioural intent to use the approach, which thereafter leads to its adoption.

This explanation is depicted in the model below:

Figure 1 Model to drive the adoption of the Flipped classroom approach



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Seventh Annual IIE Celebration of Teaching and Learning

2015 Celebration of Teaching and Learning

The anomalous case of “Frank”

Submitted by: Shaylan Janneker

“Optimism is the faith that leads to achievement. Nothing can be done without hope and confidence”

Hellen Keller

Introduction

To lecture is often a complex and intricate process. Not only is it a lecturer's responsibility to disseminate and facilitate educational processes of knowledge to the young and eager minds of students, but also to consider the contexts, intellectual capacity and the emotional intelligence that encompasses the frames of reference of understanding for each and every student to ensure the content is effectively distributed and understood amongst students (Louw, M. & Du Plooy, F. 2014). This is especially the case regarding students with disclosed disabilities and disorders. As an institution, facilitative methods and manners of engaging with students need to be systematic, effective and in accordance with the Individuals with Disabilities Education Act, which constitutionally enables “a public education for all eligible children and the school's responsibility for providing the supports and services that will allow this to happen” (N.A. 2014). Upon my year at Rosebank College – Durban, I have worked consistently with a student who has a case of autism, with the attempt to facilitate knowledge in the most effective manner that is beneficial towards him and myself. The following article shall elaborate on the progress made and issues that have occurred, serving as a reflection regarding my academic year with “Frank”.

Subject of Interest

“Frank” was born on the 16th of May, 1990. He joined Rosebank College – Durban in 2012, pursuing a diploma in Journalism.

Research

As it was the first time in which I had lectured a student with autism, I ensured that research was done accordingly. Autism or Autism Spectrum Disorder is usually characterised by challenges in social interactions, verbal and nonverbal communication and repetitive behaviours (CDC. 2014). In order to have a strategy in place, I needed to gain a concrete understanding and to have a degree of empathy, being the capacity to recognize, understand and share the emotions of another by having a mutual frame of reference with accompanying perspectives (Louw, M & Du Plooy, F. 2014). It was also important to acknowledge his educational progress, focusing primarily on a secondary level. Upon contacting Open Air School (which “Frank” had completed his secondary education in the year 2012), a source responsible in the psychology sector had acknowledged that “Frank” has higher functioning autism, but was under the normal academic program, having a scribe (often by choice of “Frank” as some assessments were completed via a computer) and extra time granted for assessments.

Considering that I had started with Rosebank College - Durban in the year 2014, I needed to gain a sense of understanding regarding the transition period from secondary to tertiary education and “Frank’s” coping mechanisms and methods implemented by other lecturers and staff. Discussions with Cheryl Baxter, principal of Rosebank College, shed some light regarding the transition of “Frank”. Confirmation with the IIE regarding procedures, facilities and resources that may be needed, “Frank” needs were accommodated to, having Atelisha Harilal (former lecturer and programme coordinator for Humanities and Leisure) and Rose – Anne Govindsamy (former students relations manager) act as mentors, guiding and assisting “Frank”. Atelisha also promoted a positive, productive and supportive class dynamic amongst students of the diploma in Journalism programme. Class approval and acceptance had a crucial role. This was evident in class interactions in 2014 with DJ 2. The departure of Rose – Anne and movement to marketing by Atelisha has had an effect regarding monitoring “Frank’s” academic and social progression. As noted by his former Journalism lecturer, Chemona Nagan, “Frank” did not adjust well, having large amounts of stress during tests and assignment submission periods, causing Frank to be disorientated.

The Need for Change

Upon entering Rosebank College in March, people have informed me of “Frank’s” condition on numerous occasions, stating that he was often hesitant in his demeanour and unapproachable on a social level as he often appeared to be intimidated by others. “Frank” was also limited his interactions with others and was emotionally disturbed when approached with questions, requiring a long time or being unable to generate and provide feedback to those he was not on a familiar level with. This was evident upon my first interaction, in which he seemed nervous upon generic questions I had asked (such as “how are you?”). His responsiveness consisted of yes and no answers, not often going further. “Frank’s” concept of time management was poor, as he was often in the library as opposed to being in class. With regards to teaching and learning techniques in the classroom, “Frank” did not engage in class activities and was hesitant in public speaking. There was a growing concern towards “Frank’s” wellbeing and academic performance, indicated by his lecturers. The scenario in which a lecturer who was responsible for four of his modules, had resigned in the midst of assessments, had significantly impacted “Frank’s” efficiency and engagement. In the 2nd semester, I confirmed that I would lecture DJ 2 for three modules, for the purposes of consistently monitoring, engaging with and effectively improving the academic and social wellbeing of ‘Frank’.

Methodology

The usage of applied behaviour analysis, self-management and promoting expressive and receptive language was conducted in the attempt to significantly influence ‘Frank’s’ growth as a student and an individual. With the usage of applied behaviour analysis, ‘Frank’s’ academic strengths and positive qualities were encouraged through requested behaviour and diminishing qualities that hamper personal progression.

The request for “Frank” to have a system of self-management assisted in his personal development. Studies of students with autism and other cognitive disorders indicate that they do not respond well to analytical and cohesive approaches involving management (Myles & Simpson, 2003). Self – management techniques, with consistent implementation, can lead to students becoming self – reliant, being able to function on a more independent level (Wilkinson, L.A 2008). Self-management techniques were instilled in “Frank” to develop an active, responsible classroom behaviour that does not require extensive and intense monitoring by lecturers and facilitators (Wilkinson, L.A 2008).

Attempts to develop and enhance “Frank’s” expressive and receptive language skills were used as a method of improving and supporting “Frank’s” social skill development and interactions (Autism Speaks. 2015). The area of improvement I wished to focus on was “Frank’s” social skills and communication methods, as his ability to express himself and his thoughts were often stifled and miscommunicated, thus generating a lack of understanding of the overall message, leading to ineffective communication (Louw, M. & Du Plooy. F. 2014). The desire to encourage behaviour in developing “Frank’s” expressive and receptive language skills was done to enhance personal relationships with his fellow classmates and other lecturers, along with learning essential skills needed for the workplace and life in general (Louw, M. & Du Plooy. F. 2014).

Strategy and Implementation

Once all research had been completed and I had experiences with “Frank”, developing a strategy to effectively lecture and facilitate knowledge required a unique approach and new perspectives. Along with having three modules facilitated by myself, “Frank” had completed the WIL (Work Integrated Learning) module under my guidance and was “employed” as assistant to the coordination and running of the Rosebank Rhythm (a monthly publication with articles written by Journalism students on a first year level and edited and constructed on a second year level). Tasked with the role of chief editor, “Frank” was primarily responsible for the conduction and construction of the Rosebank Rhythm issues published within the space of the semester.

The manner in which I could engage with “Frank” was now on a much more proactive level. One of those perspectives is that of Applied Behaviour Strategies, which involves conducting methods of teaching and learning to expand and advance on behaviour that is positive to an individual, whilst limiting and diminishing the effect of negatively influenced behaviour on an individual (Sulzer-Azaroff & Mayer, 1991). Some of the positive behaviours I wished to encourage from “Frank: are his analysing and writing abilities. “Frank’s” ability to express himself on paper in a theoretical and concise manner appeared to be his strongest quality, therefore I encouraged this behaviour in requesting that he provide feedback and assess articles submitted to the Rosebank Rhythm. I had also asked him to summarise chapters into accessible and easy to follow notes for Media Studies, enabling creative potential within a textual environment.

Behaviour which affected “Frank’s” overall cognitive and social functioning consisted of interactions whilst under pressure. To alleviate this behaviour, I encouraged “Frank” to engage with others as much as possible, by prompting him to acknowledge the presence of other lecturers and class mates and to engage in more class discussions and activities. Encouraging positive behaviour whilst attempting to alleviate behaviour that hampered personal and social progression significantly impacted “Frank’s” personal wellbeing and interactions with others. This is perfectly captured by a statement by the acting Head of Department at Rosebank College, my colleague and friend, Jamie Murugan:

“Hey Shaylan

Not sure what you are doing, but it's fantastic □

“Frank” from DJ now comes to the SS office and confidently asks for you. Today he came in and said to me that he will sit and wait for you and then proceeded to read his newspaper on the couch.

This is a completely different “Frank”...”

A crucial step in the cognitive and social development of “Frank” was to promote self-management, as it would assist in concentration and attention levels (Wilkinson, L.A 2008). During interactions, it was noted that he had used a single file and notebook for all of his modules, with notes jumbled and haphazardly arranged. I first promoted the concept of self-management by presenting him a folder specifically for all WIL content. At the end of each week on a four week duration, I requested to check “Frank’s” documents and filing to make sure all is in order. The first two weeks proved unsuccessful, as notes, worksheets and manuals were scattered and a system of arrangement was non – existent. In the following two weeks, “Frank” had improved dramatically, in having arranged content according to module. “Frank” was also instructed to plan, prioritise and assess academic content to which it can be simplified.

“Frank’s” communication skills were an area of focus that was consistently addressed and monitored, be it in academic engagement and general social skills. For a strategy to be implemented, I concentrated on “Frank’s” language skills, with particular attention focused towards his expressive language, being the “ability to convey our thoughts into words” and receptive language, being the conception and formulation of sounds to form meaning which is understood to the participant (Marrs, I. 2015). “Frank’s” expressive language was often limited in responsiveness, with simple answers and rushed questioning being the primary methods of social engagement. “Frank’s” receptive language was difficult to decipher on an academic level, as any questions presented were responded with “yes” or “no” with no emotional conveyance or deeper meaning. Thus, it was hard to determine “Frank’s” true sense of understanding. In encouraging “Frank” to express himself on a deeper level, I had engaged in social conversations as I did with any other student, with direct eye contact, a pleasant tone and easy transitions into topics of interest (i.e. Rather than discussing any academic queries immediately, I would ask general questions). When “Frank” engaged more in questions presented, I asked more personalised and intricate questions (e.g. what are you up to for the holidays? What are your plans after Rosebank College?). As a lecturer, I promote and encourage participation from all students to express their understanding and ability to convey meaning on information.

“Frank” was a part of various class discussions, group presentations and oral tests for revision purposes. An example that encouraged “Frank’s” expressive language is interviews that were required for Broadcast Journalism as an ICE Task. Students were required to interview five other students outside of the Journalism diploma and have their opinions and comments on key issues. Although his demeanour was stern and straightforward, “Frank’s” ability to express himself was highlighted as he was clear in his questioning and purposeful in communication. After consistent exposure, “Frank” was more inclined to express his thoughts without restraint and also contributed in social discussions. In class, “Frank” raised his hand to provide answers, spoke in class discussions and had even corrected me on one occasion when I had made an error. A humorous example would be when a classmate asked “Frank” repetitive questions and provided rhetorical statements, to which “Frank” responded by comparing her to Satan. The methods used to encourage expressive language directly influenced “Frank’s” receptive language skills. During the WIL programme, I had given “Frank” instructions only once, prompting attentive listening and not asking if he understands. I felt that by doing this, “Frank” would be compelled to stop and question me if he was unsure, and also removes doubt of whether “Frank” had understood if he provided a “yes” or “no” answer. This method worked, as “Frank” requested clarity on a few occasions and also repeated instructions to me to confirm his understanding. Exposure to a socially stimulating and encouraging environment assisted “Frank’s” expressive and receptive language immensely. The highlight would be when conspiracy theories were the topic of discussion in class. “Frank” immediately raised his hand and presented theories which he had read. I had asked him where he had read such information and he told me a website, which I prompted he should write down at a later time. The very next day, “Frank” enters the student support office, asks me an academic query, and afterwards presents me a piece of paper with the website written on it.

Reflection

The academic year with “Frank: (with specific focus on the 2nd semester) has been one of development, growth and a willingness to adapt, for both “Frank” and myself. I believe “Frank” has grown significantly and is more comfortable in his social abilities and personal value. The changes have been noted by staff members of Rosebank College and students alike. I truly believe that I am not solely responsible for this rapid growth, as the students and lecturers which “Frank” had contact with were advised to have a degree of empathy in understanding and also to be considerate in communication, thus providing a supportive role towards “Frank’s” personal, social and academic growth.

Implementing a system of applied behaviour analysis has significantly impacted “Frank’s” development. The encouragement of “Frank’s” academic potential and writing abilities has produced academic work of a high calibre, evident in his assessments for Media Studies along with the summarised chapters I required for WIL. “Frank” continued to demonstrate passion in academic material, often engaging with literature and academic blogs during his free time. Alleviating qualities that hamper “Frank’s” personal and social progression have also had a significant impact, as “Frank” has gained a new found confidence in his demeanour and social interactions. He freely participated in class discussions and approached different people with academic requests and general queries.

I witnessed two events, one in which he had approached the Careers Centre Coordinator, Chanelle Rorke, to utilise her services. Despite nervousness and apprehension, “Frank” was able to effectively communicate to Chanelle and provide significant input. This can be considered as a major phase in his development, as he was often emotionally disturbed when approached by people whom he was not familiar with. The second instance was when “Frank” approached the principal, Cheryl Baxter with a query. “Frank” appeared hesitant but was able to communicate effectively, demonstrating a capacity to address those in authoritative positions. I wish that the impacts made by the usage of applied behaviour analysis continue to assist “Frank” in his growth and development.

The implementation of self – management required empathy and patience, as “Frank” was new to the process and took a significant amount of time to adjust. Systems of organization and academic material management did not appear to be in full effect despite constant reminding. Changes were made and particular files were created in accordance with each module, but “Frank” often reverted to scattering notes. However, “Frank’s” concept of time management and self – dependency has been positively influenced. “Frank” became more self – reliant as time passed, often arriving on time regarding WIL sessions and having a systematic approach in conducting all working requirements. “Frank” rarely asked for assistance and instead was more focused on understanding. “Frank” became more independent, with minimum supervision required as he engaged with material consistently. “Frank’s” progression signified his ability to be more self-directed and less reliant on continuous observation (Wilkinson, L.A 2008).

Perhaps the most significant area of improvement was the development in expressive and receptive language. “Frank” had become more socially interactive, being able to communicate freely and with expression. In doing so, “Frank” was able to enhance relationships established with other class mates along with developing new relationships (Louw, M. & Du Plooy, F. 2014). In previous interactions, “Frank” often seemed emotionally stifled, leading to a misinterpretation in overall understanding. However, “Frank” was able to effectively convey emotion to accompany vocal messages in the second semester, enhancing communication. In doing so, responding to “Frank” became easier and the message was clear and there were no hesitations or fear in predicting “Frank’s” reactions. “Frank’s” receptive language had also improved dramatically as he did not request any instructions or comments to be repeated and had understood in a concise manner.

Attached in the appendix are feedback forms filled out by “Frank” regarding the research article and its topic. Based on the comments and the content of this paper, I can safely conclude that “Frank” and I have had a productive, supportive, cooperative and mutually benefitting relationship, positively enhancing both myself and “Frank”. “Frank” shall return to Rosebank College in 2015 as he has to complete three modules to attain his diploma in Journalism. Based on the progress of 2014, I wish the trend continues, as I shall continue monitoring and attempting to enhance “Frank’s” personal, social and academic progression whilst sustaining positive changes already in place.

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Appendix A**ACKNOWLEDGEMENT OF PARTICIPATION**

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You have been given this letter to acknowledge your participation in an academic article currently produced for the purposes of Teaching and Learning. By signing this document, you are agreeing to disclosing any information discussed and usage of details which are to your preference and within your levels of comfort. I would personally like to thank you in engaging in this research article and your contributions are extremely beneficial in enhancing the understanding and cognitive mindframe of myself and those who engage in the material. For further queries please do not hesitate to contact Rosebank College on 031 – 301 5212.

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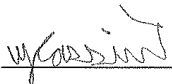
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Appendix B

ACADEMIC ARTICLE – QUESTIONNAIRE

Participant Signature of Agreement: 

For purposes for academic research with the topic being “An analysis of lecturing a student with autism”. Your participation is highly appreciated.

1. Was it a challenge adjusting from primary and secondary education to tertiary education?
 2. How would you evaluate the learning experiences at Rosebank College?
 3. Do you feel Rosebank College has met your needs as a student under special circumstances?
 4. Do you feel Shaylan has brought about an improvement in academics? Explain
 5. Do you feel interacting with Shaylan has brought a positive effect and enhanced your life personally? Explain
-

Appendix C

4

December

2014

Academic Article - Questionnaire

1. Mostly no, although at first the assignments were difficult, but I found a way to manage things.

2. I would evaluate them as interesting and interactive, while raising thought provoking issues.

3. Yes it has.

4. Yes, he has been interactive ^{throughout} lectures and friendly to approach. He has been supportive in all learning areas that he has thought in.

5. Yes, because it has encouraged me to question many things, and understand the reasons behind Journalism ethics and its various philosophies and such as the golden rule and utility. The interactions I have had would Shaylan have always been filled with warmth and encouragement to improve. He has also been very animated in his discussions with us as a class.

Appendix D**ACKNOWLEDGEMENT OF PARTICIPATION****JOHANNESBURG**

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Dear Parent / Guardian

You have been given this letter to acknowledge that [REDACTED] has agreed to the participation in an academic article currently produced for the purposes of Teaching and Learning. By signing this document, you are acknowledging his agreement to disclosing any information discussed and usage of details which are to your preference and within his levels of comfort.

I would personally like to thank you in engaging in this research article and your contributions are extremely beneficial in enhancing the understanding and cognitive mindframe of myself and those who engage in the material. For further queries please do not hesitate to contact Rosebank College on 031 – 301 5212.

Parent / Sponsor Signature

Mr S.Y. Janneker

Programme Coordinator - Humanities and Leisure Co-Ordinator

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10-JUL-2015 22:28 From:

PRETORIA



Seventh Annual IIE Celebration of Teaching and Learning

2015 Celebration of Teaching and Learning

One size does not fit all – studio teaching in design

Submitted by: Carmen Gunkel¹, Marili de Weerd², Maretha Olivier³, Nicolette van der Merwe⁴, Ria van Zyl⁵

Introduction

The Design of School of Southern Africa (DSSA) offers design courses in three design disciplines (Interior Design, Graphic Design and Fashion Design) that range from Higher Certificate (NQF5) to Honours level (NQF8). The one teaching and learning platform that all these disciplines share is that the practical design subjects are taught in a studio environment. The Programme Managers of DSSA have decided to, as a group, revisit best practice for teaching in a design studio environment.

Design education today has to keep up with changes and challenges in the discipline of design where the domain of design has widened considerably to cater for increased complex design problems at sociocultural and ecological level, a plethora of new technologies, the challenge of increased democratization of design technologies and a competitive market. However, design education, according to seminal educationalist Jorge Frascara (2007, p.63) still suffers from the “master-apprentice” model where instructors may be good, but unable to articulate design principles. This may result in students who are trained to please the “masters” through imitation, without the required knowledge that is required for industry.

A theoretical foundation for design, as young academic discipline, is also still in development, with students often not seeing the need for any “theory”. Furthermore, the studio subjects at DSSA are mostly presented by a contingent of Independent Contractors (IC’s) who are, although qualified and experienced practitioners, not educators. Therefore, as Programme Managers we need to constantly evaluate our teaching systems to ensure that students are provided with the best possible, contemporary learning environments that suit the range of NQF levels, as well as the varied nature of design projects that may span from basic crafting and tame problems to wicked problems.

We will use this platform to start to build up examples of teaching methods that can be shared with IC’s and used to improve the quality of studio teaching. This can, in turn, be developed into further research later on, using more formal evaluation instruments and research methods and to possibly develop a unique DSSA approach.

This work-in-progress presentation will be report on the initial findings on current teaching methodology used in the creative studios at DSSA, contextualise this with current international and local practice, and describe selected innovations that worked.

Higher Certificate in Art and Design

Approaches to studio teaching vary across disciplines and according to level. For this reason it difficult to develop a particular pedagogy for studio learning. The best we can do is to share effective experiences and adapt these for our own use and within this sharing of organic ideas, to find practical solutions. Such sharing is the aim of this paper. When discussing learning in the studio the master apprentice model is relevant. This model has been widely criticised for the reasons mentioned in the introduction, but most studio based teaching, even its variances or deviations, is still reliant on this model (Lerner, 2012). This is especially true for the NQF level 5, and specifically the *Higher Certificate in Art and Design*.

Here the student still requires a lot of structure and support as they lack the necessary knowledge and skill to find their own way through learning. When they are supported on this level, they are given the tools to navigate through their own learning more confidently on the higher NQF levels. In the studio a design problem is posed to the students. The outline of the process to be followed is provided. Often students are directed by providing examples or sources to research. The facilitator directs each student individually through conversation about their ideas and aims. This process is familiar to most who are involved in studio training and closely resemble the master apprentice model. To suit the needs of students today this approach needs to be supplemented and independent thinking needs to be encouraged. A buzzword in current education circles is the *student centred* learning approach, and this is a particularly effective approach for the creative studio environment (Clarke & Budge, 2010). The student centred approach supplements the master apprentice model to make it more flexible and it is used to avoid some of the pitfalls of this model.

To avoid the copying of the “master”, it is important to include voices other than that of the facilitator in the classroom. Exposing students to different creative voices and approaches helps them to find their own. This may be a third person such as someone from industry or a facilitator from another discipline or class, but can be as simple as creating platforms where students can learn from one another. The peer critique is one example of such a platform where students engage with the ideas of other class members and is the activity in which peer learning is most experienced within the studio environment (Budge, Beale & Lynas, 2013). In the long term, this also facilitates objective discussions of others’ as well as their own work and enhances their critical awareness (Hassanpour, Utaberta & Zaharim, 2010). Seeking and giving peer feedback also helps to develop creativity in design and according to Budge *et al* (2013, p.147) “peer feedback and critique is integral to the creative practice of designers”. Design solutions often need to be communicated to clients or colleagues and the ‘crit’ session creates the environment required to develop this skill and an opportunity to share best practice (Simpson 2012; Collins 2005).

There are various forms of 'crit' sessions used in the studio of which the most commonly used in formative feedback is the 'pin up' where students put their work up and have the opportunity to discuss their aims and decisions to the rest of the group. Different types of crits such as juries, reviews in the middle or end of the project and more formal or public crits where the student orally present their work to either the class, facilitator or visiting panel of professionals and involves different ways to reflect on their own work (Budge, Beale & Lynas, 2013). In a case study by Budge, Beale and Lynas, (2013) students noted benefit and risk in peer learning. Students acknowledged the importance of the facilitator's involvement in ensuring that it is constructive, fair and objective without rudeness. According to Schön (1987) submitting to the process of critique can produce anxiety in some students because they fear they could lose their sense of competence, control and confidence (Simpson. 2012:68). For this reason the facilitator role is that of support and guidance, especially at higher certificate level.

Before conducting a peer critique, facilitators should have gone through the process of group facilitator critique to expose them to the approach and type of language to be used. They need to understand that it should be a constructive experience where they learn from the successes of others and learn to improve on less successful areas. Once they are comfortable with this process they can move to peer critique. In the first group peer critique session the facilitator's voice needs to be a guide to encourage positive criticism and immediately redirect negative or damaging comments. The traditional approach to the crit session as described by Schön (cited in Simpson 2012, p.69) suggests that the "crit scenario allows the experienced design teacher to guide the novice design student towards developing his or her own reflection-in-action skills..." By using peer feedback, crit sessions take on a different tone and approach than if it were merely done from the one perspective of the facilitator. Its traditional function and purpose is still in place, with the addition of student experience. The facilitator's role in this is to encourage additional feedback and comments as needed for further understanding or clarify, correct and redirect student input as required. A mutual respect is required and valuable feedback needs to be re-affirmed (Simpson. 2012; Budge, Beale & Lynas, 2013).

According to Simpson (2012, p.68) the crit session serve as both an assessment and a learning tool. As a learning tool, student feedback is used by students to gauge their success; and facilitators use it to assess the level of understanding of students of learning objectives; encourage students and to provide a platform where students can engage with higher-level thinking processes necessary for successfully learning the creative design process (Simpson, 2012). It requires a cooperative approach in terms of positive interdependence where students are required to be self-driven and organised in order to take responsibility for their own learning (Edström, 2014).

By focussing on peer feedback, the crit session supported and guided by the facilitator becomes less stressful for the student and according to Simpson (2012, p.77) it could contribute to “higher levels of motivation. Higher levels of self-esteem, increased perceived importance of task and higher levels of challenge as it relates to skill.” Research conducted amongst students by Hassanpour et al. (2010) indicated that design studios who regard different voices and opinions, instead of focusing on that of the facilitator, only provide a richer experience and have more successful results.

Peer learning in the form of peer critique sessions is a valuable contribution to learning on the Higher Certificate in Art and Design. It not only contributes to the perspective of the student to the discussion, but also encourages analytical thinking. It is applied on this level with great success with the support and guidance of the facilitator, where students demonstrate growth in confidence and skill to discuss their own as well as the work of others.

Interior Design

The following section reflects on teaching methods found effective in the BA for Interior Design classrooms and give examples used to improve practical studio teaching. In a creative studio, it is imperative to move away from the “master-apprentice” model, to avoid pleasing masters through imitation as this is often found in practically based classes. It is also necessary to prepare students for the industry, through introducing simulations of real life scenarios in the classroom, to prepare students more effectively to deal with challenges when entering the workplace. Altering the practical studio environment has proven to boost creativity by allowing students to take ownership of the classroom environment, as will be shown by tools created by the Institute of Design at Stanford University. This shift in classroom layouts allows the lecturer (the “master”) to rather be the classroom facilitator which results in active deep learning in the classroom. A second very effective method to avoid a “master-apprentice” scenario is the use of role-playing, to allow students to offer peer feedback, and not only rely on the lecturer for feedback.

Create a place for learning

According to David Kelley it does not matter “whether it’s a classroom or the offices of a billion dollar company, space is something to think of as an instrument for innovation and collaboration. It’s not an initial, given condition, something that should be accepted as is. Space is a valuable tool that can help you create deep and meaningful collaborations in your work and life”(Doorley & Witthoft, 2002, p.5). The physical structure of a classroom is a critical variable in affecting student morale and learning, but just as important is the students' involvement in the process of creating their environment. Testing this theory, the students in the Interior Design class were encouraged to move the classroom as they wish. The result was astounding as can be seen in Figures 1 and 2.

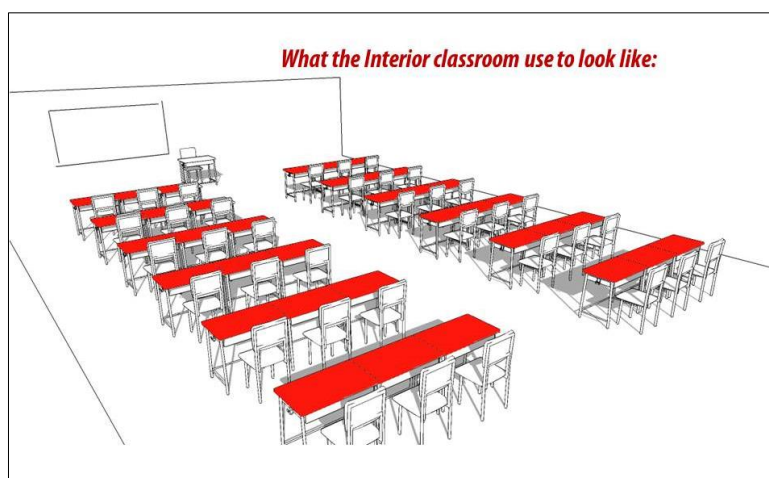


Figure 1: A typical Interior classroom

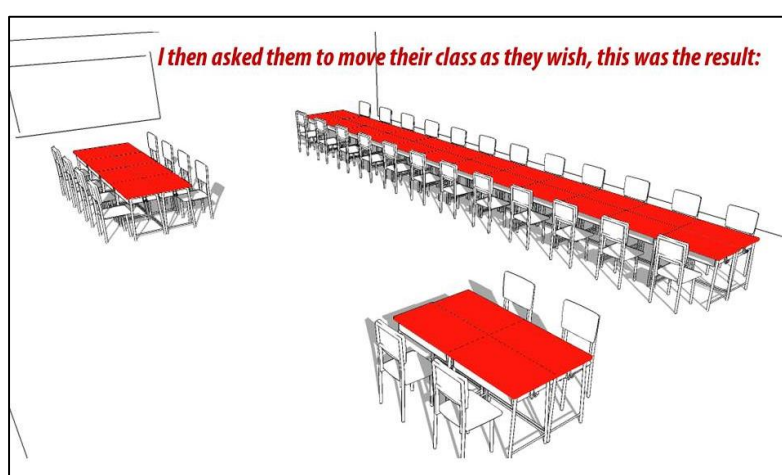


Figure 2: The new Interior classroom

The students, without instruction, or extensive knowledge of classroom design, created a space for themselves to work in, that encourages group work and interaction. They did this by moving all the tables to face each other, rather than all facing to the front (see figure 2). It was evident that they started interacting better with each other, and they started asking their peers for feedback on their designs, and not just focusing on the lecturer for answers. By moving the space around, they created a space that is not bound by designated areas, they felt comfortable to move the space as their needs changed, but most importantly, they created a platform enabling them to absorb feedback from different people in a relaxed environment. Without a lecturer standing at the front of the class, it creates a physical environment where students not only rely on the “one person” to provide knowledge and feedback (see layout of typical classroom layout in Figure 1). The new environment creates a space for greater participation. A space is created that nurtures the development of community and increases motivation.

D.school, the Institute for Design at Stanford University experimented with space and the impact it has on people’s behaviour. They wanted their “students and teams to be mindful of space and to take responsibility for setting up the environments that will amplify their work” (Doorley & Witthoft, 2002, p.7).

One of the tools they used to encourage active learning was to create instant shared studios. They created shared spaces, with multifunctional items placed in the large studios, such as open shelving for storage, sliding white boards (see figure 3), that became screens for privacy or walls to write on. Various hanging options on the walls, to instantly display work and provided instructions how to 'reset' the space after completion of the class. This created spaces that can be instantly used and expanded into a studio environment and be reset for the next group that enters the space.

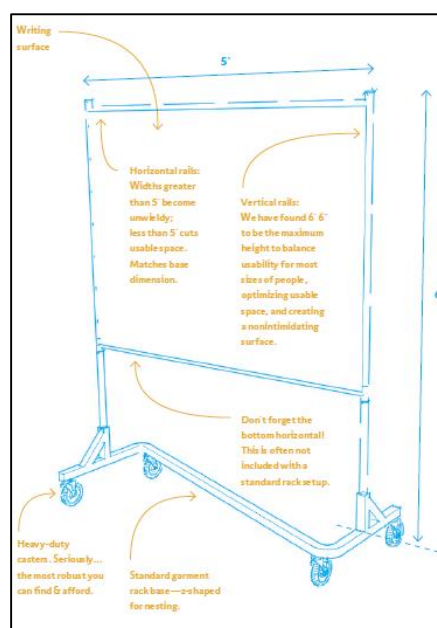


Figure 3: Movable white boards (S. Doorley & S. Witthoft, 2002)

“Around the campfire” was another pattern that allowed equalizing the group and rejecting the master-apprentice model. They used low seating (see Figure 4) to equalize the group for discussion groups and shared activities. As the lecturer sat on the same level as the students, the “master” became a peer. This helped to heighten the awareness of the group and engagement of the participants, and it dramatically influenced participation of the group.

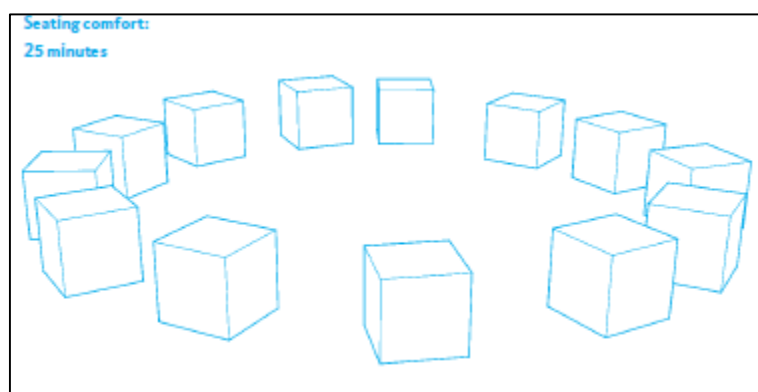


Figure 4: “Around the campfire” seating (S. Doorley & S. Witthoft, 2002)

Rethinking the seating orientation and use of surfaces (such as using vertical writing boards) and interchangeable spaces, they have created a creative environment that has proven effective to ease active learning, design more emphatically and inspired innovation.

From “master” to facilitator:

Interior Design students verbally present their designs at the end of every project submission. This is an important skill, as this simulates work place presentations to various stakeholders such as clients and builders. For one of these presentations for an office design, the students mimicked a design presentation in a boardroom by setting up the classroom to look like a formal boardroom (see figure 5). Each student got a role to play in critically analysing the design of the student who was presenting (see figure 6). The findings were that the students provided insightful feedback as they would normally give during verbal presentations. The students were not personally insulting and provided positive criticism as they were “only playing a role”. Most importantly, the lecturer was not the only source of feedback (see figure 7), avoiding the pitfalls of apprentice trying to please the master by trying to imitate their personal style and not necessarily focus on the elements of good design.

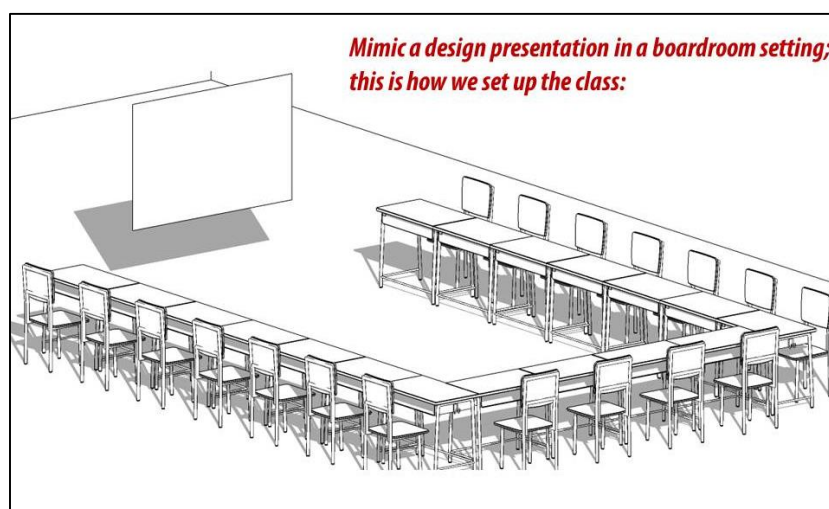


Figure5: The boardroom layout

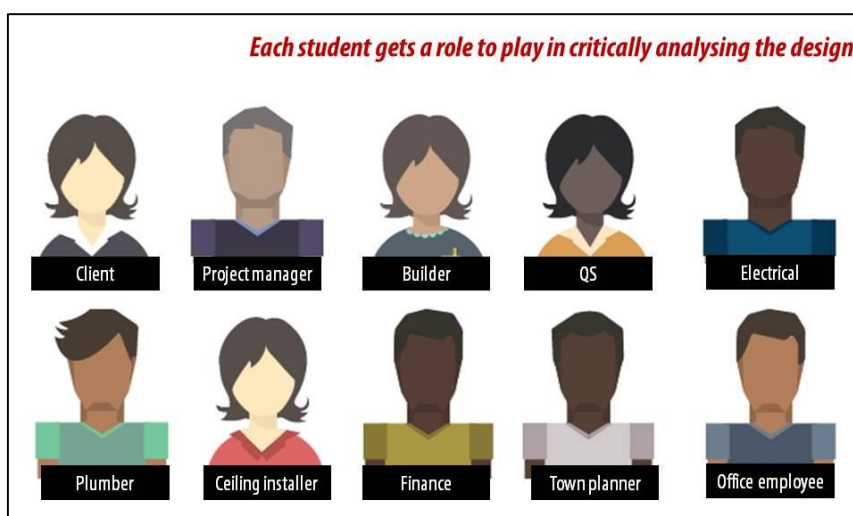


Figure 6: The various role players involved

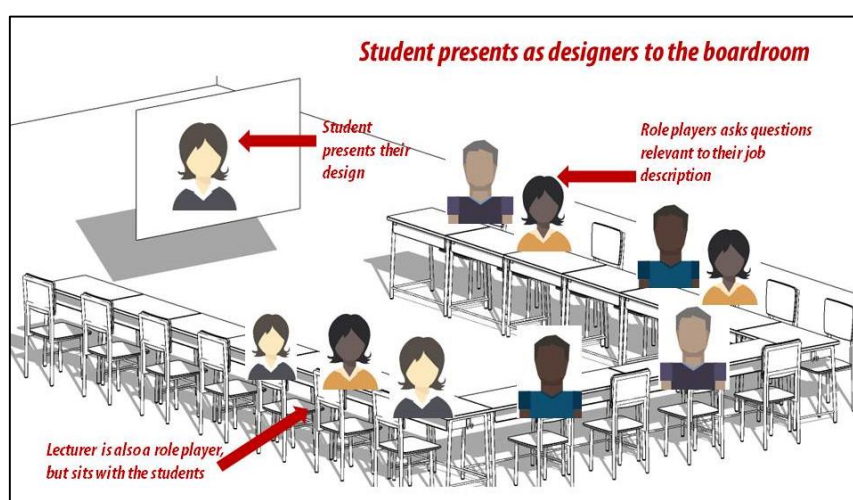


Figure 7: Students presents as designers to the boardroom

Fashion Design

The risk of 'master-apprentice' teaching in the practical studio becomes a challenge in fashion design, where it is essential to provide students with the tools and ability to problem solve and create for themselves, without them being just a carbon copy of their lecturer. In the fashion design curriculum, the majority of the modules students have to complete are practical. Compounding this, is the fact that the modules are also skills based and rely on the acquiring of specific skills. These skills can also not be learned from book sources and therefore must rely on a 'master' showing the 'apprentice' what to do. With modules such as learning a software program, sewing and pattern draughting, there is a shift towards the lecturer having to impart skills and knowledge to the unknowing student.

Again it is very easy to just create carbon copies of the lecturer – however, these copied apprentices would then need to rely on the master to continually show them what to do. What is important at the fundamental levels of instruction is that the lecturer must take on the role of master for the initial training after which the student will start to acquire the knowledge and skills that will elevate them beyond just being apprentices. A good example for these practical modules would be where the lecturer would introduce the concept to be covered and it is explained in detail. Following that, the students would be required to attempt some project work or exercise in order to test the newly acquired knowledge in order to see whether an understanding of the concepts had taken place. Ideally the students should now be able to move along to more difficult application of the concepts learnt and be able to attempt new exercises by themselves. This should also be where the lecturer as ‘master’ must relinquish their role as ‘master’ but the lecturer might have to complete a second round as ‘master’ before being able to do so. By providing the students with suitable examples followed by modes of application that are clear and easy to assimilate, the students develop their ability to reason and problem solve by themselves to the extent where they move beyond being mere apprentices relying on their ‘master’.

Examples of this in the fashion curriculum – as indicated before – would for example include software training. Students are taught the fundamentals and the initial instruction happens very much as a ‘show and do’ exchange method and this sees the lecturer as the ‘master’. Students are, however, continually given the tools, knowledge and understanding of what they are learning and the opportunity to practice and apply this. The teaching method focuses on learning-while-doing and the students complete project work while they learn the actual program. As a result, the fashion design students initially follow the ‘master’ as ‘apprentices’ but once the basic fundamental knowledge of the software program is acquired, the students now having adequate knowledge can start to engage with the content of the module themselves without the constant guidance from the lecturer.

With pattern and garment construction, essential subjects where a design is developed to become a garment, the scenario is very similar. The initial studio interaction relies on a ‘show and do’ exchange of the initial concepts. These exchanges are supported by the prescribed materials such as the textbooks and video tutorials, but mainly still rely on the lecturer as ‘master’ showing the student what to do. Once the students gain confidence, skills and ability the lecturer as main feature of the exchange can retreat to the point where the student can now complete the majority of their work on their own with minimal guidance from the lecturer.

It is important to note that the level of the exchange will also reduce horizontally throughout the level and vertically from year to year. The main consideration within the practical studio environment should be the fact that once the students start being able to complete their work with minor or without assistance, that the master roll must be relinquished to allow the students to grow.

Graphic Design

Graphic Design is presented at Graduate and Honours level. At both levels the teaching approach is geared to be less authoritarian (master-apprentice). Emphasis is placed on the individual needs of the students, contemporary relevance, student-preparedness and places the student at the centre of the educational process (Sadker & Zittleman, 2008).

Small classrooms allow for educators to be more attentive towards each individual learner and consequently cater for the multiple intelligences and language proficiencies of a diverse group of students. Dedicated consultation times with each student ensure better project development and student learning. These consultation times are built into the lesson plans and form part of the notional hours for a particular module. At graduate level the specific focus is placed on preparing students for the real-world where the classroom environment simulates a real-life working environment and project briefs focus on social, economic and political needs in a contemporary context. The real-life working environment is achieved in the classroom through the roles which the educator and student play. The educator assumes the role as the client, whereas the student assumes the role of the designer. This form of role-playing best prepares students for the type of environment they are most likely to experience once they have graduated and start working as professional Graphic Designers.

Students and educators “work together on determining what should be learnt and how best to learn it (Sadker & Zittleman, 2008, p.324)”. For example, project briefs are relatively flexible which allow students to choose between options and deliverables. This encourages greater student autonomy and encourages the free pursuit of learning. Students feel like they have valuable input in the design of their curriculum while educators are still able to maintain a level of control during the facilitation process. The result is a shift away from the master-apprentice model that still allows educators to exercise and implement academic standards as well as ensure that specified learning outcomes are achieved. Moreover, this approach promotes a relationship of mutual respect between the student and the educator.

Learning is further facilitated through social interaction in the classroom by conducting group debates, group activities, practical exercises and class discussions. Students work in small groups and move about freely, chatting about possible design solutions. The lecturer also moves freely around the classroom assisting these discussions. You will hardly ever find a graphic design lecturer standing in front of the class addressing rows of students.



Figure 8 Graphic design students workshoping whilst on a field trip where deep-level learning takes place.

A focus in the studio is to facilitate individual learning capabilities. Lecturers, for example, sit in on group discussions, and engage in discourse with individual (or small groups of) learners by asking questions and making suggestions. This individual approach guides learners so that they find personal meaning in the subject matter being taught, and promotes a free, creative, stimulating and open classroom environment in order to encourage and motivate learners to achieve academic and personal success.

By moving towards a studio approach in our classrooms we aim to encourage graphic design students who are intelligent and creative problem solvers, socially aware citizens, who enjoy learning, are capable of accepting personal responsibilities, at peace with their own unique individuality and who want to live in a world where they are able to make meaningful contributions (Sadker & Zittleman, 2008).

At Honours level, the nature of the project briefs change, briefs deal with more complex design problems and lecturer's role shifts to allow and guide students to become more independent. For example: instead of the lecturer being the 'expert', students have to find project specific experts outside the classroom, and a much stronger focus is placed on the final target audience or user's needs. Project briefs reflect this approach and allow for audience participation and co-design, where audiences become active participants in the development of design solutions. Students are also challenged to find real-life projects where they have to work directly with a design client, with the lecturer as project advisor. This exposes students to real, professional contexts whilst still being able to ask the lecturer for advice or guidance.



Figure 9. For a group project about diabetes the BA Honours in Graphic Design students consulted a medical expert to understand diabetes better.



Figure 10. Honours Students attended a diabetes support group to get first hand exposure to the target audience and other participants.

Concluding remarks

This work-in-progress paper and presentation shows how lecturers at DSSA continuously develop new teaching and learning approaches for the design subjects that are taught in a studio environment. The approaches include alternative ways to provide feedback, such as peer review and crit sessions, alternative classroom design and layout, role playing and the provision of options in briefs that allows students to develop individual strengths and interest. Approaches are vertically and horizontally scaffolded allowing for learning at the appropriate level that ranges for a 'show and do' approach at first year level, to a lecturer who becomes a mentor at Honours year level. What came out during reflection is that mutual trust and respect becomes a cornerstone in the learner-educator relationship, especially where the traditional master-apprentice model is challenged.

This paper provided the opportunity to document and reflect on teaching methodology used in the practical modules at DSSA and describes some of the approaches used by the different lecturers and Programme Managers. This presentation forms the basis for further research, where these approaches can be systematically researched and evaluated over time in order to improve the quality of studio teaching.

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Seventh Annual IIE Celebration of Teaching and Learning

2015 Celebration of Teaching and Learning

The use of social media to enhance teaching and learning in higher education and actively engaging students

Submitted by: Millicent Mavimbela

Introduction of the topic

The emergence and huge success of web 2.0 applications on the internet and, more specifically, social networking applications, has led to new questions being asked if it can be used as a potential learning platform or not (Munoz 2009:2).

The following paper will be looking into how lecturers can make use of social networks to actively engage students, making teaching and learning a fun platform. According to Kaplan and Haenlein (2010:68), Social network are new communication platforms that one cannot ignore. However, based on Munoz (2009:2), “educators have turned to Web 2.0 tools, drawing upon their ability to assist in creating, collaborating and sharing content with students online”.

He further states that, social networks have become an important space for sharing learning resources and an opportunity for the collective construction of knowledge. The tools in social networks provide opportunities for learning and entertainment in one platform. Social networks have platforms for on-site learning which provides an enhancement for in the classroom and outside the classroom communication tool (Munoz 2009:2).

Motivation for the topic

Social networking applications are effective communication tools as lecturers can use them to communicate with students anytime and anywhere. It also enable students to access extra learning materials, as lecturers do not always have enough time to cover the whole module in class. (Loving & Ochaoa 2010:123).

The researcher recommends that lecturers must respond to the pressure of using social networking applications for learning purpose, as added by Sivek (2010:147) many faculties have integrated social networking applications as a solution to classroom. We are living in a 21st century where social networking platforms are actively used by students (Loving & Ochaoa 2010:123), so it is best to use the platforms where students are mostly active in.

The purpose of this study is to determine if social networking applications could effectively be used to enhance teaching and learning at a college level, as a communication tool in order to enhance performance on student's academic lives. It will give a background of Social Media, taking into consideration the global development of Social Media and Social Networks in the South African context.

Description of the topic

The implementation of social networking applications by college students for entertainment and learning is common in the 21st century. College students use several social networking applications (Cao & Hong, 2011; Dahlstrom, 2012), as it has become a necessary part of their everyday life for personal and learning purposes.

With the increased number of mobile technologies and smartphones and the culture of having social networking applications in their palms and at their command (Dahlstrom, 2012) In: (Cao, Haya & Paul, 2013).

The challenge of using social media for both students and lecturers for academic purposes

The problem is that social networks could lead to challenges for both students and lecturers for academic purposes, as students may skip classes and be reluctant to attend. Reports show that many barriers prevent Lecturers from utilising social media for teaching purposes (Cao, Haya & Paul, 2013).

Nevertheless, both students and lecturers tend to be sceptical about using social networking applications for teaching and learning. Thus, Students dislike privacy invasions from lecturers, as some social networks allow for users to view profiles of other users. The challenge is some students still prefer to use e-mails and/ or learning management systems such as Blackboard and other traditional methods of teaching, as well as face-to-face instruction (Dahlstrom, 2012 IN: (Cao, Haya & Paul, 2013).

Many Lecturers also fear that social networking applications take up too much of their time to setup and use and also have mentioned the same concern of issues of privacy as the students (Moran *et al*, 2012). (Cao, Haya & Paul, 2013). The following is critical especially to colleges who make use of independent contractors, as their lecturers.

The benefit of using social media for both students and lecturers for academic purposes

According to (Ajjan & Hartshorne, 2008 IN: (Cao, Haya & Paul, 2013), social networking applications provide users with interactive platforms, where have control over their own information and are able to work together and share information.

“Social networking applications can achieve the objectives of Bloom’s taxonomy of learning objectives and create the basis for constructivism, connectivity and community” (Bosman & Zagenczyk, 2011). Social networking applications allows different ways for facilitating, remembering, understanding and analysing information but, most importantly for applying, evaluating and creating your own content (Bosman & Zagenczyk, 2011; Bull *et al*, 2008).

Thus, social networking application provide advantages over traditional teaching methods (e.g. lecturers, written contents and face-to-face communications) with new opportunities of using multimedia for learning and outlets of creativity. As students in the 21st century prefer using technology 24/7 as, according to Loving and Ochaoa (2010:123), students spend a maximum time online. If lecturers can consider the following, integrating social network in their learning environment, students may find more comfort and enthusiasm in learning (Cao, Haya & Paul, 2013).

The adaptation of use of social networking application in teaching and learning is that social networking applications provide multiple set-ups, directions and channels of communicating, which can improve educational results. Blogs, wikis, instant messaging and texting can help students in writing; podcasting can be helpful for audio, as well as YouTube with video sharing and creation, Flickr and Instagram with distribution and sharing of images, and online gaming and Second Life with simulation (Cao, Haya & Paul, 2013).

Social networking applications that could be used for enhancing teaching and learning

Based on a survey done by Hart (2015:1), with comments from respondents, the following list of social networks were identified to be effective in teaching and learning, namely:

- Podcasting.

Audacity – *“Free and easy to create classroom podcasts and mp3s where the students get to hear, edit and publish themselves. Promotes ownership – extremely motivating.”* Kora Stoll, Fifth grade teacher in Miami, Florida.

- Collaborative mind mapping.

Bubblus – *“a great flow charting tool that lets individuals and groups sketch out their conceptual map.”* Andrew Middleton, Staff developer, Sheffield Hallam University, UK.

- Micro-blogging/ micro-sharing.

Flickr - *“it’s an extraordinary image collection and I can search for Creative Commons photos which I can use for PowerPoint presentations”* Gabriela Grosseck, Senior lecturer, West University of Timisoara, Romania.

Edu-blog: *“I manage class discussions out of class and provide additional information here following classes that students find difficult; if I am absent, this is where I can teach “remote class”.* Sarah Davis, Associate Dean at the College of Charleston in Charleston, SC.

- Presentation sharing.

Slideshare – *“This is a great way to share student work on a webspace”.* Mary Howard, Sixth grade teacher in Grand Island, New York.

Slideshare – *“Great for sharing presentations. But I love the Slidecast facility where you can add an mp3 file to run with your slides. Great for vocab drilling because you can show the flashcards at the same time.”* Adam Sutcliffe, Modern Languages teacher, The Gordon Schools, Scotland.

- Video sharing

YouTube – *“how could I teach my New Media and Culture course without it?”* Dawn Burton, English/ESL (HS) teacher in Louisiana.

“The ability to quickly create a small learning piece and then distribute it to thousands of people instantaneously is great for quick pieces of instruction. I embed YouTube and Teacher Tube videos into wikis and blogs all the time.” Karl Kapp, professor of Instructional Technology and the Assistant Director at Bloomsburg University in Bloomsburg PA (Cao, Haya & Paul, 2013).

Explanation of the outcome/ impact/ results

The findings of the following study by Cao, Haya and Paul, (2013) study help identify a number of factors that may encourage lecturers to start using social networking applications to better engage their students and help them achieve better learning results. The findings also indicated the following: “We found that actual use of social networking does indeed contribute to better learning results for students” (Cao, Haya & Paul, 2013).

Based on findings of a study by (Dunn, N.D), where the sampling was n=168 lecturers, who were asked if they have used one or more types of social networks applications to engage student. The user respondents indicated that they had used the following social networks in their teaching: 78.6% said yes to using YouTube and other multimedia sites (such as podcast, iTunes and Flickr) for teaching and learning.

The study also demonstrated that the experimental group (28 undergraduate students) used a closed Facebook group to share ideas, thoughts and resources for a period of six weeks. 16 of them provided feedback for this study. They all posted a status update or engaged with peer comments. 81% also engaged with a member of staff, to ask questions or to raise issues connected to the course. 75% indicated that they found the social network very helpful, (Dunn, N.D).

Conclusions/ Recommendations

In essence, I believe that it is about time lecturers engage with students, where they are mostly active in, as social networks has introduce a new and innovative way of teaching and learning. It does not only focus on the serious part of learning but makes teaching and learning fun for both lecturers and students.

To summarize the following, social networking application, can increasing student motivation and engagement with course material, it is also a great way for teamwork. It allows a chance for interaction between the student and the lecturer as, it removes barriers to self-expression and contribution, as you know that some students may be afraid to ask questions in class. Lastly, it offers students and lecturers, a chance to actively adapt to the use of technology and mostly a chance for 21st century teaching and learning skills.

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Seventh Annual IIE Celebration of Teaching and Learning

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The impact that the articulation gap has on students' success at higher education institutions in South Africa

Submitted by: Nkosivile Welcome Madinga

Introduction

The purpose of this proposal is to examine the articulation gap and interrogate the impact that it has on student success in higher education in South Africa. Case, Marshall, & Grayson (2013: 1) state that a major fault line is the articulation gap or the discontinuity between high school and undergraduate studies in higher education. As a result, McDonough (1994: 12) argues that the misalignment between high school and higher education complicates the transition from high school to university and colleges, which impacts students' success in higher education.

I believe that, as a starting point, it is important to locate concerns about the South African articulation gap within higher education, and that high school educational policies and curriculum be revised to better educate students about transitioning to university and helping them prepare for the course work that lies ahead. Also, the difference in the educational standards between high school and varsity impacts students' success in higher education.

I find that high school students needing 30% average to pass contributes to the articulation gap because at Universities of Technology such as Vaal University of Technology, students need an average of 50% per module to qualify for the exams, and still need another 50% in the exam to pass every module. Therefore, the difference in the passing average contributes largely to how students perform and in ensuring their success.

The high school education system must be transformed to better equip students with the necessary tools for higher education, and to adequately prepare them for the challenges that lie ahead (White-Paper, 1997: 4). South Africa's higher education system is deeply affected by the same educational inequalities of the past and poor educational performance that characterize the school system.

1. Context of the study

The study on the context of higher education's articulation gap and student success at the higher education institutions is of major importance because there is a misalignment between high school and higher education.

The proposal of under graduate curriculum reform in South Africa (2013:20) state that the articulation gap can only be effectively bridged if there is sufficient curriculum space for integrating foundational provisions into mainstream programs for all who need it. Meaning that foundation or bridging programs/ courses will be provided for students who need it, and such programs will also be linked to the main program which students are interested in pursuing.

It further argues that given the extent and persistence of the shortcomings in schooling, such as the mismatch between the demands of higher education and the preparedness of school leavers, what is required is nothing less than systematic changes in the schooling program by aligning the context of grade 12 pupil's studies with that of university, and also integrating the higher education curriculum with that of high school.

Higher education institution faces issues relating to students access and success. The problem of a low success rate is arguably the single biggest challenge facing Universities, Universities of Technologies and Colleges. The low graduation rate occur in the situation of a struggling but growing post school system which needs to accommodate the educational requirements of enormous numbers of young unemployed people. The large number of people who are entering higher education makes it hard for students to graduate in regulation time and in some cases, for such students to complete their studies because most of the students entering higher education are underprepared

2. Definition of the central concepts

2.1. Articulation gap

Scott and Fisher (2011: 10) defines articulation gap as a mismatch or discontinuity between the learning requirements of high school and higher education programme and the actual knowledge and competencies of first time entering students. In this study, the term will be defined as the mismatch or discontinuity between the exit level of secondary education and the entry level of higher education.

2.2. Student success

Student success in higher education is the ability of students to accomplish their educational goals in a timely manner and to attain key performance milestones (Wilson, Fuller, & Mykhaylichenko, 2011:4). Therefore, for the purpose of this study, student success will be defined by their ability to complete their studies in regulation time.

2.3. Underprepared students

Underprepared students refers to any student whose academic skills fall below those determined to be necessary for college success and/ or any student whose college readiness skills do not adequately prepare them for the harshness of university study and learning.

3. Research problem statement

In recent years, a large number of students have been entering into higher education institutions, which is a good thing. However, it has a negative impact on students, because half the students enter into higher education institutions without knowing what to expect or are not well prepared for the challenges that lie ahead. Higher education institutions in South Africa have an open access policy in place, which means that higher educations are obliged to accept any students who qualify for university studies, regardless of their age, race or gender.

As a result, not all of the students who enrol are prepared for the academic strictness of college level work (Brown & Niemi, 2007: 7). Some students enter higher education institutions where they are underprepared for the amount of work which they will have to deal with daily. The open access policies of higher education has succeeded in enhancing enrolment, but have had the unintended consequence of inhibiting college completion (Shulock & Moore, 2007: 14). The proposal of undergraduate curriculum reform in South Africa (2013: 53) argues that 55% of students that register at higher education institutions never graduate, whereas a relatively low number of registered students graduate in regulation time.

Additional data by Brown and Niemi (2007: 8) offers further support to the argument that many students enrolling from high school to university are underprepared for the higher education coursework. As a result, the low success rate or high failure rate at higher education institutions result in unacceptable levels of attrition, and reduced graduate through put rate (Mlambo, 2011: 1).

An important role of higher education is to resolve the persistent skills shortage in South Africa by producing qualified graduates and post graduates (Fisher & Scott, 2011: 3). Despite the significant progress in expanding access since the 1994 democratic election in South Africa, higher education remains a low participation- high attribution system (Fisher & Scott, 2011: 3). Students outcomes are poor overall and highly unequal across institutional types. Therefore, in order for students to take charge of their own lives when they are at varsity, they should be adequately prepared when they are still in high school.

Under preparedness describes a diverse group of students that varies with ability, educational background, income, and life experiences (Dzubak, 2011: 1). The academic preparedness of a large number of students, many who are the first in their families to pursue post-secondary studies, is poor, a factor that contributes to poor completion and graduation rates (Fisher & Scott, 2011: 4). Student under preparedness has led to a large number of students' failure in higher education. Under preparedness may result in students dropping out of varsity or delay them from completing their studies.

Transition from high school and maturing into independent and responsible adults are the ultimate outcome measures of education (Simonelli, 2012: 1). Higher education allows students to make their own choices, it gives them the platform to make critical decisions, and students also have to be in charge of their own lives and studies. Educators have a significant opportunity to support all students beyond high school by linking school academics with higher education learning life experiences (National Center for Secondary Education and Transition, 2003: 23). Adequate preparation for the transition to adult life and college life is a long process that accelerates and intensifies as students get older (Simonelli, 2012: 2).

Research on the role that preparation plays in promoting the transition to college has focused on identifying the relative contributions of academic, social and financial factors. Academic coursework and social preparations are strong predictors of both college entry and subsequent performance (Goldrick-Rub & Wagner, 2007: 3). Imperfect knowledge about financial aid and inadequate academic preparation is not always reflected in students' aspirations to earn a varsity degree (Carter, 1999: 22). High school students' curriculum should cover areas such as post-secondary educational options, employment options and independent living skills, and should be personal to every student. The transition to life after high school is a shared responsibility between schools, students and families where communication, collaboration and cooperation build on years of development for student outcomes (Simonelli, 2012: 4).

Student under preparedness and the difference in the educational standards in higher education and high school plays a major role in impacting students' success. The proposal for undergraduate reform in South Africa (2013: 17) argues that only 35% of students in higher education graduate in regulation time, whereas 55% of students that enter into higher education institutions never graduate.

3.1. Research questions

1. What impact does the articulation gap have on students' success in higher education?
2. Why does the articulation gap lead to low student success rate?
3. How can the exiting articulation gap be bridged?

4. Aims of the research

- Identify the impact the articulation gap has on student success.
- Explore the articulation gap and student success in higher education.
- Suggest ways in which the existing articulation gap can be bridged.

5. Literature review

5.1. Higher education

In modern society, one of the most crucial activities organized is higher education. It creates a demanding but rewarding environment in which individuals may realise their creative and intellectual potential (Green-Paper, 1996: 3). Also, higher education has a uniquely important role in resolving the persistent skill shortage in South Africa by producing qualified graduates, post-graduates, and generating research and innovation (Fisher & Scott, 2011:3). As such, it also plays a central role in the social, cultural, and economic development of modern society. Therefore, the challenge facing South Africa is to redress past inequalities and to transform the higher education system to serve a new social order, and to reply to new realities and opportunities (Government-Gazette, 1997: 3).

Each year, a large number of students enrol in higher education institutions, most of which are underprepared to succeed in higher education (Research and planning group). Students' high school experience often fails to prepare them for post-secondary education (Bangser, 2008: 4). As such, many students enter higher education institutions needing bridging or introduction courses, but such students are less likely to earn degrees or diplomas compared to those students who do not need a bridging or introduction course (Wirt, Choy, Rooney, Proasnik, Sen & Tobin, 2004: 6).

Research on the role that preparation plays in promoting the transition from high school to varsity has focused on identifying the relative contribution of academic, social, and financial aid that student needs. High school students need opportunities to make choices, to explore possibilities in their daily lives, to plan for the future, and to practice problem solving and also learn to recover from bad decisions (NCSET, 2003: 23). The opportunity for students to learn about personal interests, make plans for life after high school, and develop and practice real world skills through applied learning, and learning to evaluate and make changes to plans, are elements that can be built into curriculums and daily learning experiences (Simonelli, 2012: 3).

McDonough (1994: 9) argued that the misalignment of ambitions complicates the transition from high school to varsity, and that high school educational policies and practices should be revised to better educate students about life after high school and college life and choices.

Transitioning to life after high school requires guidance and support, life skills, and interagency coordination. Adequate preparation for the transition to adult life is a long process that accelerates and intensifies as students get older (Simonelli, 2012: 2). Varied strategies have been implemented to prepare high school students for post-secondary education (Bangser, 2008: 5).

5.2. Articulation gap

Articulation gap, as defined by Scott and Fisher (2011:10), is a mismatch or discontinuity between the learning requirements of high school and higher education programs, and the actual knowledge and competencies of first time entering students. I, however, would define the articulation gap as the discrepancy both in the standard of education and the curriculum standards.

The mismatch between the exit level of high school and the entry level of higher education, and also the difference in the curriculum standards, is too significant, and leads to students who are first entering the higher education atmosphere to suffer because the workload becomes too much and they are not prepared enough to deal with the amount of academic work that higher education requires.

This gap is manifest in undergraduate programmes that are based on inappropriate assumptions about students' prior knowledge, that are inflexible in terms of learning pathways, and that does not take sufficient account of students' differing educational preparedness to bridge transitions between various phases of undergraduate study.

The articulation gap has also been identified as a major cause of student failure and dropout, most negatively affecting students from disadvantaged educational backgrounds (Proposal for undergraduate curriculum reform in South Africa, 2013: 62).

The South African higher education system is currently producing too few graduates, both in absolute numbers and relative to intake (Reddy, 2013: 32). He further argues that a major fault is the articulation gap, which is the discontinuity between high school and under graduate studies in higher education, meaning that there is no linkage between high school and entry level of higher education.

The secondary-tertiary articulation gap seriously affects the majority of the higher education intake because most of the students entering higher education are underprepared and are not ready to tackle the challenges that they are bound to face in higher education and, hence, need to be recognized as a key systematic fault, requiring systematic change (Reddy, 2013: 62)

In order to improve equity of outcomes, the higher education system is required to respond comprehensively to the articulation gap between learner's high school attainment and the intellectual demands of higher education (Government-Gazette, 1999: 17). The articulation gap has been identified as a major cause of students' failure and drop out over the last two decades in South Africa (Reddy, 2013: 62). As a result, it has had a widespread effect of students dropping out, students not completing their programme and some taking relatively long to finish their programmes. For example, if the academic challenges of higher education defeat a large proportion of a small intake that indicates an abnormal discontinuity between high school and university.

Astin (2000: 14) states that transitioning to life after high school requires guidance and support, life skills, as well as a well-developed transition plan. Whereas, Rosenbaun and Person (2003: 252) argued that the misalignment of ambitions complicates the transition from high school to college and that the high school educational policies should be revised to better educate students about college. The complexity of the articulation gap and associated systematic problems indicate that redoing school work, using current secondary level approaches is not a promising way of addressing the articulation gap (Reddy, 2013: 63).

5.3. Student success

Much of the attention in higher education policy circles today focus on how to help more students gain access to higher education and then succeed by attaining a degree, diploma or certificate. Schroede (2011:3). Student success and retention strategies need to respond to the realities and nature of both students and institutions.

Under preparedness describes a diverse group of students that varies with ability, educational background, income, and life experiences (Dzubak, 2010: 1). The academic preparedness of a large number of students, many who are the first in their families to pursue post-secondary studies, is poor, a factor that contributes to poor completion and graduation rates (Fisher & Scott, 2011: 4). Student under preparedness has led to a large number of students' failure in higher education. Under preparedness may result in students dropping out of university or delay them from completing their studies.

6. Recommendations

In order to improve equity of outcomes, the higher education system should respond comprehensively to the articulation gap between learner's high school attainment and the intellectual demands of higher education (Government-Gazette, 1999: 17). The articulation gap is a major cause of student's failure and drop out (Reddy, 2013: 62). Therefore, if the articulation gap can be bridged, students' success rates in higher education will increase and it will also lower the drop out and failure rates in higher education.

I believe that if the exit level of high school curriculum and the entry level of higher education curriculum can be aligned, students will be able to perform better as they will be adequately prepared and ready for the challenges ahead. Therefore, I would recommend that high school and higher education curriculum be intertwined so that there would be a continuation between the curriculums and the students will be able to perform better.

Also, the department of education recently introduced introduction and bridging courses, which are meant to elevate the standards and readiness of students entering higher education. However, such courses are not really fulfilling their intended outcomes. Therefore, the department should reintroduce or reinvent those courses so that they will be able to help students reach a certain level of readiness and preparedness, so that they will be able to handle and cope with the pressure that higher education has to offer.

7. Conclusion

South Africa's higher education system has gone through numerous changes since the first democratic election in 1994. A larger number of students have had to be admitted in the various institutions. The institutions welcomed diverse students from different backgrounds, races, cultures, and beliefs.

Since a large number of students have had access to higher education, most of them were underprepared for the challenges that lie ahead and, in return, such challenges hinder their ability to be successful in higher education.

Simonelli (2012) argues that most of the challenges that the higher education system faces can be avoided if the high school curriculum could be changed to better educate students about the challenges that university will provide them with, and also allows students to make their own decisions and life choices.

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Seventh Annual IIE Celebration of Teaching and Learning

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Learning while doing: Concurrent cycle instruction in the fashion digital classroom

Submitted by: ¹Nicolette van der Merwe, ²Linda van Ryneveld

Introduction to the study:

Progressing from design as a concept to designing inside the fashion industry requires adequate student educating and training. A large part of the industry has shifted towards digital platforms for design purposes and, consequently, institutions have been forced to follow suit.

Additionally, the “structure of higher education (HE), while traditionally resistant to innovation, is being dramatically affected by changes brought by information technologies” (Kamau, 2012:4). Students nowadays “insist that they must gain computing skills, for CAD (Computer Aided Design) is their job ticket and they believe it will make them better designers” (Gross & Do, 1999:2–3). One only needs to look at the job requirements for graduate fashion designers, to realise that while design industries have embraced technology it is the teaching institutions that often lag behind.

Issues that arise with the implementation of CAD at curriculum and institutional level are varied. Some might not result directly from learning the software, but are directly responsible for the problems students have before and experience during software instruction. Students enter the CAD laboratory with varying levels or a total lack of, basic computer skills and user-embedded knowledge (Sinclair, 2006:7). Often CAD facilities are insufficient with additional practice time becoming non-existent (Sinclair, 2006:7; Chamberlin, 2001:1). Available high-end systems (e.g. Lectra for fashion specific pattern applications) “still remain not only more difficult to learn but also more expensive in comparison to mid-range software” (Unver, 2006:324), making the mid-range Adobe Photoshop a logical, affordable and accessible choice despite not being fashion-specific.

Learning specialised design programs is difficult and time consuming (Zdravkovic & Vian, 2000:296; Unver, 2006:328; Kuang, 2008:998). Zdravkovic and Vian (2000:296) go further, stating that if a student is unsuccessful in learning a program “this can cause a decrease of their selfconfidence”. Training should ideally be project-based, focus on skills development, subject relevant, placed within a specific design context and learner-centred (Chamberlin, 2001:1; Kuang, 2008:998; Zdravkovic & Vian, 2000:296) as opposed to the traditional method of computer-centred instruction. In support of most of these issues, Gross (1997:97) indicates that a survey she conducted showed the “need for more and easier ways to learn CAD programs as a frequently stated void”.

Resultantly, students exhibit existing and develop certain challenges during CAD instruction for fashion design. Insufficient facilities, a lack of practice time and inadequate instruction or instruction methods compound these challenges. A new method of teaching that aimed to solve these problems had to be developed as the research question of the study asked *how the challenges that students developed during software training could be overcome*.

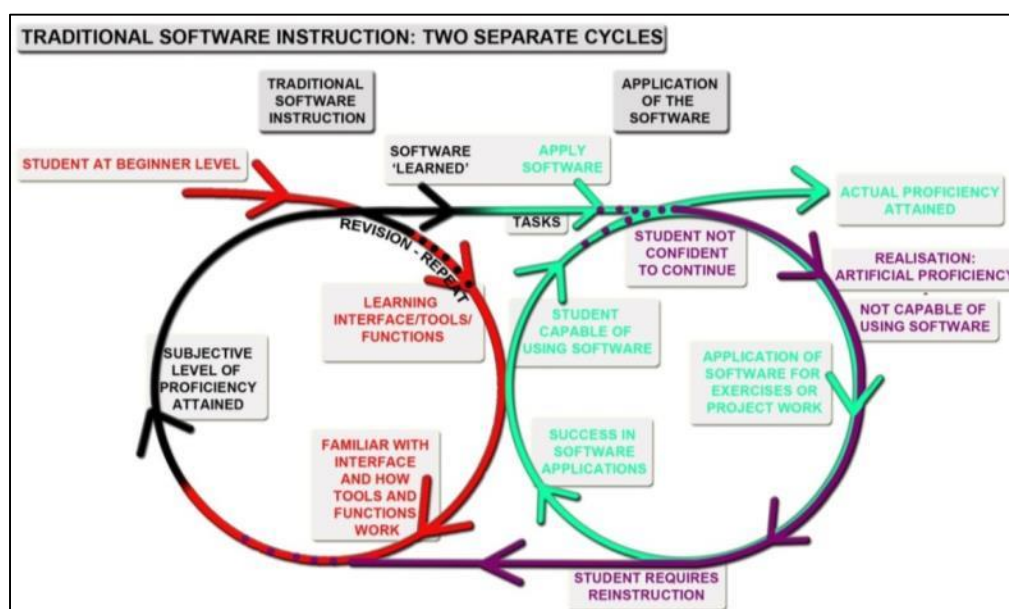
This paper will shortly describe the small scale pilot study that was used to test this new teaching method for teaching fashion students Photoshop as part of the original study. The paper will also put forth the summarised data analysis, subsequent results of the efficacy of the teaching method and its implementation at curriculum level. Additionally the study also made clear the potential of the new teaching method beyond the scope of fashion design.

Motivation for the study

Having taught CAD to fashion design students since 2010, the commonly used pedagogical approach (Traditional Software Instruction or TSI) was found to be unsuitable. This scenario, in conjunction with the issues observed during training, required intervention.

Typically with TSI (Fig.1), students are instructed to use the Graphic User Interface (GUI) while the instructor moves from one function to the next. Examples are related to the functions and very little time is allocated for them to practice. The student enters and moves through the *red cycle* until they 'feel' (the subjective level of proficiency) confident enough to apply the GUI to project work and enter the *black cycle*.

Figure 1: Traditional Software Instruction (Van der Merwe, 2012).



Students receive their project brief and must complete their project work using the GUI and they either realise that they are not as confident as initially thought and return to the *red cycle* (revision/ repeat) or push ahead to enter the *green cycle*. The student will now start applying the GUI to the project work and, through using the program, actually gain confidence and build on the initial instruction until they exit the *green cycle*, with their project work completed and actual proficiency in using the program attained. Alternatively, the student will confidently enter the *green cycle* and start to apply the GUI but then realise that they cannot.

They then lose confidence and enter the *purple cycle* and return to the *red cycle*, requiring re-instruction. Unfortunately, this method of instruction leaves many students disoriented and incapable of applying the program to their work. Rarely do students, even those with an aptitude for using computers and software, complete the two cycles in a single instruction phase without needing revision.

By moving away from the linear computer-centred method of TSI towards *learning while doing* or the process of learning the GUI while simultaneously using the program to complete project work, students are more likely to grasp the fundamentals quickly. Coupled with the cyclical fashion creative design process—where the concept is developed through research, then designs are done and developed until completion—the Concurrent Cycle Instruction (CCI) teaching method frees up time to focus on repetition through exercises that improves students' skills set against their own discipline.

To elaborate, CCI (Fig. 2) is an integrated dual cycle. The student enters the *black cycle* as a beginner at the same time as entering the *red cycle*. The *black cycle* is the instruction of the software program and the *red cycle* is the actual work that the student will complete. The students acquire their first skill set while compiling their trend boards, then revise the first skill set and learn the second skill set while doing the mood boards. This continues until the students have learned the entire program, simultaneously completing all design elements for their project. Not only is this integrated method fashion-specific and easier to understand and follow, but the students complete their instruction with actual (not subjective) proficiency.

Moreover, students know how and for what purpose to apply tools and functions and the majority of the students complete their instruction at a similar skill level. In addition, the majority of irrelevant Photoshop program functions and applications (such as web and video editing) are not included in instruction. Students are taught only what they need to start with at the fundamental level and from there build on until they reach proficiency.

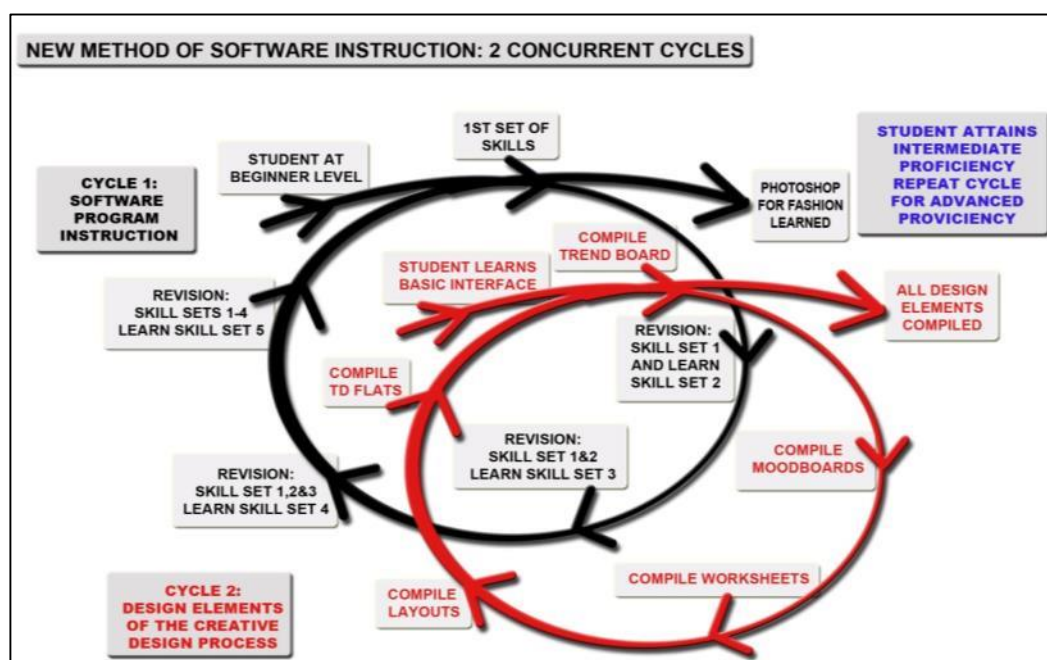


Figure 2: Concurrent Cycle Instruction (Van der Merwe, 2012).

Using CCI as opposed to TSI appeared to address the students' inability to recall and apply the software program to project work and exercises after learning to use the program. It also focused on relevant, fashion-specific teaching and attempted to eliminate as many of the problems students experienced in the classroom as possible. Ideally, CCI potentially made Photoshop software teaching simpler, faster and more efficient.

Description

Paradigm and Methodology:

Due to the nature of the inquiry, the qualitative paradigm was chosen as it revolves, for the most part, around “human behavior, opinion, and experience — information that is difficult to obtain through more quantitatively-oriented methods of data collection” (Guest, Namey & Mitchell, 2012:1). The methodology selected was Design Research and it can be described as creating interventions through conducting research within the natural environment in order to elicit new ideas, concepts and applications based on experiences in this natural environment (Barab and Squire in Van den Akker *et al.*, 2006:4; Design-Based Research Collective, 2003:8). Adding to this, “the merit of a design is measured, in part, by its practicality for users in real contexts” (Nieveen *et al.*, 2006:5).

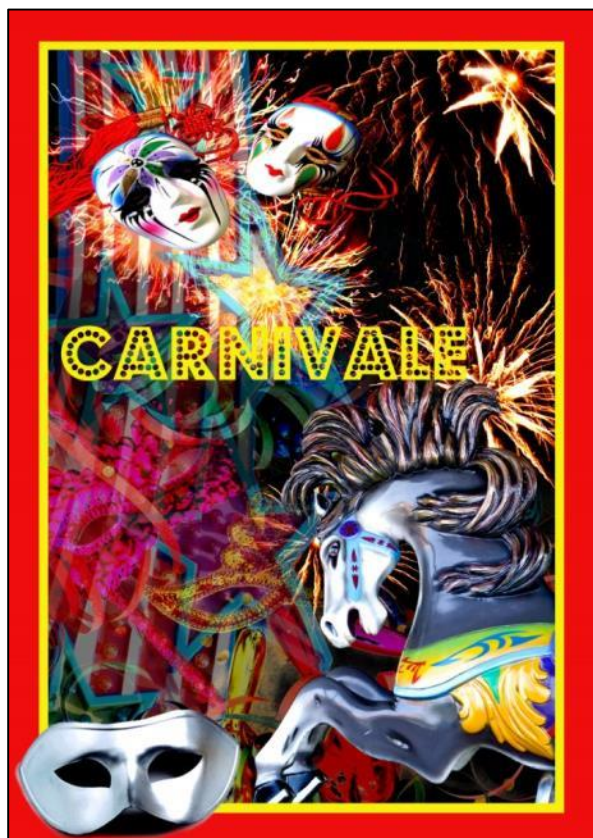
The research design focused on the structure provided by the methodology and the three outlined phases of conducting a “design experiment” (Brown & Collins in Collins, Joseph & Bielaczyc, 2004:15) delineated by Gravemeijer and Cobb (2006: Chapter 3). This three-phase, Design Research framework (Gravemeijer & Cobb, 2006) was used as the basis for the research design for the smaller scale *design experiment* as a pilot study.

Larger sample sizes are traditionally encouraged, but only because of the statistical validity of the data they generate – an entirely quantitative concern, not a qualitative one. The goal of the small-scale *design experiment* was “to explore, probe, and investigate in an experimental educational setting” (Gravemeijer & Van Eede, 2009:513). The scale was also a secondary consideration provided it generated sufficient data and information to give adequate insight into the efficacy of the new teaching method. Sampson (2004:383) also states that “pilots ...have greater use still in ethnographic approaches to data collection in foreshadowing research problems and questions, in highlighting gaps and wastage in data collection, and in considering broader and highly significant issues”.

The Research Design:

The total sample of six voluntary student participants selected over two Higher Education institutions (BA Degree students from the Design School Southern Africa and National Diploma students from the F Wilson Fashion Institute) consisted of only first-year students. Imposing this limitation ensured them having minimal to no Photoshop skills. This was important as the efficacy of CCI had to be tested on students with no prior Photoshop experience or skills. They were allocated participant numbers that allowed them to participate anonymously. Additionally, the pilot study included participant observers and an instructor. All three of these individuals had industry and teaching experience at Higher Education level as part of their backgrounds and had been involved either within fashion or another related design field.

It is also important to discuss *what* the students did during the training. As the CCI teaching method is intended to teach the software program while the students apply it to a design element, in this case it was a mood board. As part of the study the participants completed two mood boards – an instructional mood board (Fig. 3) and a post-instructional assignment mood board (Fig. 4).

Figure 3:**Figure 4:**

Mood Board 1 (Van der Merwe, 2012). Mood Board 2 (Van der Merwe, 2012).

Mood board1 was used as the initial board to be completed and mood board2 was completed as the assignment directly after the training session. Despite both boards being visually different from each other, both are technically almost identical. By providing the students with similar boards, the tools and techniques used during the compilation of mood board1 were repeated during mood board2. Theoretically, mood board2 was completed without the participants making the obvious association of the learned tools and functions based on the visual images.

Often, a person remembers how to do something based on the cognitive association of the function to the specific image as opposed to actually having learned and thus recalling the function in order to apply it to the new image. This is problematic as images constantly change in real life and once this happens one is no longer able to apply the tool or function. Mood board2 provided insight into whether they had indeed learned the tools and functions as opposed to associating them with the images. As they completed the assignment they were forced to problem solve their solution to the second mood board as they could not rely on image-based association or instructor assistance.

By conducting the training according to lessons in a structured format, the instructor worked through the training as if through a tick-list ensuring that all the theoretical aspects were covered. At a fundamental level, many of the initial tools and functions must be explained against the underlying theory/ principles in order for the students to learn to use the program effectively – something often omitted during software training.

Explanation of the outcome

One of the main data gathering methods was a checklist completed by each participant as they proceeded through the training. The participants were prompted to complete the checklist as soon as possible after completing a section, while their memories of what they had done were still fresh. In the checklist, each question asked for a response on how the student felt or thought they had performed. An open-ended feedback section was provided as well. Uneven question numbers were response questions and even question numbers were open-ended feedback sections, resulting in 26 actual responses. Where technical issues outside of the participants' control were experienced, responses were waived. All checklists were collated and could be checked and triangulated against the participant observers' field notes and the video recording. The focus was related to whether the outcomes had been reached or not despite the use of percentages used to indicate success rates.

The initial training session of the pilot study was completed over five hours, which can be considered a very short time. The checklists provided a positive view on the completion of mood board¹ during the initial training session. The verified participants' checklist responses (Table 1.1) indicated that 77% of the sections the participants had completed were completed first time. Only 12.83% of the sections were completed where the participants had to try twice and just 9.5% of the participants needed help while completing some of the sections. This could be seen as a reflection of the instructor's ability, but the instructor was following the CCI lesson plans. Only eight out of 156 responses were waived due to software or technical issues.

Table 1.1: Checked Participant Responses.

TOTAL RESPONSES	156 - 8 technical response waivers = 148 actual responses	
	Checked and Triangulated Responses	
Response	Actual responses	% of responses
1. Yes no problem, I managed first time	114	77%
2. Yes, but I had to try twice	19	12.83%
3. I struggled but eventually came right	1	0.67%%
4. I needed help	14	9.5%
Technical issues not related to the student's ability	8/156	5.4% waived

The assessment of the participants' mood boards also indicated positive results. The boards completed by the participants (Fig. 5 to 7) can be compared against the original examples (Fig. 3 and 4). Mood board1 (Fig. 5 and 6) showed that the participants had completed their boards with very good scores ranging from 93.1% to 97.7% where 25% was the poorest and 100% the best score that could be attained. It was logical that this would occur as this was the board the participants had completed with assistance from the instructor. Despite these positive results, mood board1 could only be used to indicate that the participants had reached the outcome by accurately completing the board – it did not indicate whether they had learned the fundamentals of the program outright.

The completion of the second mood board, however, did. As the participants were required to complete mood board2 (Fig. 7 and 8) on their own without guidance, the results from the assessment of the second board can be used to indicate whether they had, in fact, learned the program fundamentals in the five-hour training period. As the scores ranged from 97.7% through 93.1%, 86.4%, 79.5%, 70.5% to 59% it was clear that the scores were still well within an acceptable range. It clearly indicated that the ranges of the scoring system placed four out of six of the participants in the top 75%-100% range and only two of the participants into the second highest range of 50%-75%. As a result, the participants had to use their knowledge from the training session and not only their memories in order to complete the second board and the scores are thus a positive indication that they had, in fact, learned the program fundamentals. Despite small creative visual discrepancies, the participants still completed the required steps that were required. If one had to translate the final scores allocated for the assignment mood board as percentages onto a larger group, the supposition could be made that around 67% of the group would score within the top 75%-100% range and the remaining 33% in the second best 50%-75% range.

Additional ideas that could support the elimination of the identified problems overall could include:

- By extending the time period during which the training is done it could be completed over two days and divided into shorter sessions over longer periods, making the training more easily digestible.
- Adding additional exercises where, e.g. the easier first one can be completed by everyone and a second more difficult exercise can be completed by the faster students. The second exercise would prevent them from feeling bored while waiting for the instructor to continue, especially where the instructor must intermittently assist less capable students. This could also be completed by the less capable students later as additional practice.
- A third training session intended to revise the concepts initially completed could also be included, potentially not later than one week after the initial training session. The exercise or content covered could be tailored to allow students to problem solve solutions.



Figure 5: Student Participant Instructional Mood board – Mood board1 for Participants 002, 003 and 004

PCSP005

PCSP006

PCSP007



Figure 6: Student Participant Instructional Mood board – Mood board1 for Participants 005, 006 and 007

PCSP002

PCSP003

PCSP004

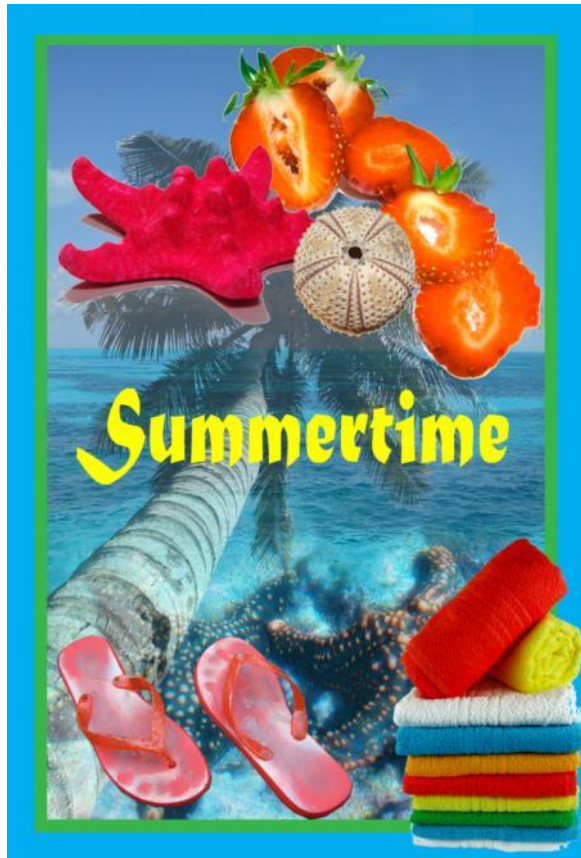


Figure 7: Student Participant Assignment Mood board – Mood board2 for Participants 002, 003 and 004

PCSP005

PCSP006

PCSP007



Figure 8: Student Participant Assignment Mood board – Mood board2 for Participants 005, 006 and 007

Overall, the feedback was positive and the participants felt that they had gained something from learning the program. Their answers exuded self-confidence as many indicated that they enjoyed the training and found it easy. Again, this is integral as problems and difficulties with their initial learning could have them lose confidence and interest in learning the program. The corroborated checklist and the assessment of both the completed mood boards provided a very good overview of the efficacy of the CCI method. Overall the collation and the corroboration of the gathered data and information yielded positive results.

Conclusion

It can be argued that CCI brought about “authentic learning” (Lombardi, 2007:2) where some of the points relate directly to the basic structure of the CCI method whereas others occurred as the training took place. The 10 points indicated by Lombardi (2007:3–4) were included in the training where:

1. “Real-world relevance” was established as the design elements created were purposefully based on the replication of the industry-standard fashion creative design process.
2. “Ill-defined problems” were resolved through individual resolutions in terms of problem-solving evident in the mood boards (especially mood board2), as noted by the participant observers (Tselepis, 2013:50).
3. “Sustained investigation” related to the continual learning that took place during the resolution of design-specific work as it was never completed but relied on a principle of addition and revision as skills improved.
4. “Multiple sources and investigation” can be incorporated through the use of software-based and manual execution techniques, which will be more evident at an intermediate level of proficiency.
5. “Collaboration” cannot be incorporated from the immediate onset of the training cycle as fundamental knowledge should first be put in place. Once this happened, however, the students were collaborating by assisting each other – this was also noted by one participant observer (Tselepis, 2013:46, 50).
6. “Reflection” was noted by the participant observers as the participants were starting to learn from their mistakes and complete repetitive sections correctly. The checklist also forced them to reflect on their performance.
7. An “interdisciplinary perspective” was incorporated as part of the CCI method structure as the participants created design elements related to the fashion creative design process. CCI can, however, be adapted to serve various design disciplines by simply changing the focus.
8. “Integrated assessment” took place as each step of the design development process relies on the preceding steps. The CCI method is also used in a similar, cyclical manner that allows for the subsequent steps to build on the steps that came before.
9. The “polished product” was developed as a mood board. The CCI method will allow students to create each design element needed towards their total project from start to finish. The process might be similar for creating each element but it will result in a stand-alone design element each time.

10. “Multiple interpretations and outcomes” were reached as each participant completed a similar, yet uniquely different, mood board as part of the training cycle.

In other words, the new method could be described as a learner-centred pedagogical approach that relies on real-world application and also simulates the professional working environment.

Participant Feedback:

Instead of further testing within a full-scale design experiment, the positive results have led to CCI being used as the teaching method for the Photoshop CAD third-year training in the Fashion Design Department of the Design School Southern Africa. The success of this curriculum integration has, in turn, led to the curriculum for both the second and third-year Fashion Design modules integrating CCI in its entirety as of the onset of 2014. Prior to that, CCI had been used from the middle of 2012 already, albeit in a less formal structure for the Fashion Illustration module at second year level.

Following the completion of the second board with the 2014 second year group, the three DSSA participants who had taken part in the training cycle mid-2013 (PCSP005, PCSP006 and PCSP007) were asked whether they would provide feedback via a form regarding their retention of the program. This was to be completed over the first three classes of Photoshop training (identical to the instructional cycle completed during the pilot study), where each class consisted of two hours over a three week period. The feedback form they completed focused on what they could or could not do during the new training cycle; what they could remember from the previous training; whether they had experienced any difficulties; whether they had used the program in the six months since the initial training; and if they had any additional comments.

All three students could complete their tasks (all indicated *yes*) with no difficulties at all (all indicated *no*). PCSP005 ticked that she could remember all the sections from before except for *resetting essentials*. PCSP006 stated that she had only forgotten two sections from the previous training: *resetting essentials* and *resolution*. PCSP007 – who had been one of the participants who had struggled the most during the pilot study and finished with the poorest score for her mood board² – had forgotten the *tool preset bar*, *resolution*, *resetting essentials* and how to *select inverse*. It seems though that once she started using the program she could remember as she also indicated that she had experienced no difficulties. PCSP005 and 007 indicated that they had not used the program since the pilot study, whereas PCSP006 stated that she just needed a refresher and that she could remember everything since she had used the program since 2013. PCSP007 added that she could understand and remember everything better the second time as they had had more time and everything was shown more slowly. Interestingly enough, both the pilot study and the actual class training sessions consisted of approximately six hours in total, but the progression of the class time over three weeks rather than as a single session seemed to make a positive contribution to the training.

Based on this feedback, retention levels appeared to be positive. All three required no assistance and the new training done as part of their studies appeared to have served as a refresher. Despite the fact that only one of the three students indicated that she had used the program during the six-month period following the initial training, all three were well ahead of their peers. They completed their activities first but more importantly, accurately, and without assistance. If the CCI method used during the pilot study had not been efficient, the students' retention level would more likely have been poorer and they would have experienced far more problems during the second round of training, especially for the two who had not used the program since 2013.

The Adobe ACE instructor who facilitated the training for the pilot study provided feedback in an interview where he pointed out that "the content of the lessons themselves was well-conceived and prepared" (Van der Merwe, 2013:1). The first specific comment he made regarding the use of the CCI method indicated that "[d]espite their lack of exposure to Photoshop, the students managed to come to grips with the interface and tools in a surprisingly short time" (Van der Merwe, 2013:1). He indicated that "much less information is given to students over a longer period to ensure retention. This method [referring to CCI] seems to manage their intake far better" (Van der Merwe, 2013:1). Secondly, he found that the "'real-world' application to an actual fashion-based project was a very nice touch" as many of his students have in the past "struggled to understand how a specific function could be applied in an industry context" and that the "longer initial/ introductory session" was something he would be "keen to incorporate" in his "own teaching in the future" (Van der Merwe, 2013:1).

Another point he made was that by "completing an actual project in a limited time, the students gain confidence that they would not have if they had only completed small, isolated tasks" (Van der Merwe, 2013:2). Confidence while using the program had been brought up in many of the discussions in this study, especially as it was identified as one of the main problems that could result from poor software instruction.

Finally, he stated that "the change in focus from the software itself to the students' performance makes far more sense in terms of vocational preparation. Keeping the content relevant to the specific design discipline and removing unnecessary content also makes sense" (Van der Merwe, 2013:1).

The feedback from two of the participants included in the study provided opinions based on their industry and education related experiences. It was also important to use their feedback from the point of view that they were present during the pilot study and as a result observed the application of the CCI method in the natural environment.

Based on her experience as a participant observer in the pilot study, the second participant observer Ms M. Olivier (2013:1) indicated that she was impressed by the speed at which students grasped the fundamental skill set taught. She also expressed surprise at the fact that she herself had learned new skills while observing the pilot study.

In her official capacity as the Head of Department of Interior Design at the Design School Southern Africa, Ms M. Olivier (2013:1) stated an interest in adopting CCI as the preferred method of delivery for Photoshop training for her students as well. The Presentation Drawing module, at second-year level, includes a strong emphasis on digital rendering that bears many similarities to the Fashion Design course or, more specifically, the fashion creative design process (Olivier, 2013:1). She felt that a minor revision of the later lesson content – in terms of the fashion-related images used, not the technical processes employed – would make the CCI method used in the pilot study appropriate for Interior Design as well (Olivier, 2013:1).

From the onset of 2014, the curriculum for both the second and third-year Fashion Design modules at the DSSA integrated CCI in its entirety, as the initial pilot study structure had been expanded to include the creation of all the design elements (from image boards to final design work). The concept of CCI has been retained yet accommodation has been made as the laboratory times and access to the computer laboratory remained a problem as a result of it being a shared space, reliant on the institutional timetable. Instead of focusing on a longer time period (as with the pilot study) spent training in a single cycle, the cycle was broken up into shorter time periods over multiple training cycles and, thus, a longer period of time.

Fundamental training started with the second-year students and as the third-years had received the fundamental training the previous year, they could continue with additional training at an intermediate level. For the second-year curriculum, provision was made through the division of the module's notional hours (total time allocated for the module for the year based on the module credits) into four hours' ongoing manual studio classes and two hours' laboratory time per week. This was allocated for both the first and second semester of twelve weeks each. Any exercises completed during the course of the first semester were assessed as an incentive, based on the outcomes reached, and not towards their final semester mark.

The second-years completed the fundamental training (completing mood board¹) over 12 hours and a period of six weeks. The boards were actually completed over the first four weeks, which allowed for two weeks. The following six-week, 12-hour period was used for the completion of mood board² and additional smaller exercises relying on the tools they had been taught as part of the fundamental training session. In the last three-week period, intermediate-level exercises relying on similar and more advanced application of the same tools, were added. Each section of the training was completed and revised before moving to the next and as a result they obtained a much higher skill level to enter their third year with. As educators it was also imperative to aim for a close-to-ideal scenario, where the students could be accommodated for shorter but more intense as opposed to longer periods of time, as it could only benefit the students.

Additionally, Adobe has also implemented numerous usage incentives for their products. They have become focused educational providers as they have recognised the need for students to have access to their products as driven by the respective design industries. One example includes the purchasing of a year-long licence for a specific platform such as Photoshop at a massively reduced cost. With the rolling out of Adobe Creative Cloud, even more options have become available to students, educators and institutions alike (Adobe Systems Software Ireland Ltd, 2014). Continuous incentives such as these can only serve to make the Adobe products more affordable and well-supported mid-range alternatives.

In closing it should be recognised that many problems are inherent to the process of learning software programs and that some of these problems are outside the scope of single individuals' ability to prevent or change. It does, however, become the daily task of educators to attempt to do so and often the only possible solution is to find methods to overcome these problems.

List of Images

Figure 1: Van Der Merwe, N. 2012. Traditional Software Instruction [.jpeg].

Figure 2: Van Der Merwe, N. 2012. Concurrent Cycle Instruction [.jpeg].

Figure 3: Van Der Merwe, N. 2012. Mood Board 1 [.jpeg].

Figure 4: Van Der Merwe, N. 2012. Mood Board 2 [.jpeg].

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Seventh Annual IIE Celebration of Teaching and Learning

2015 Celebration of Teaching and Learning

Standing Tall on Yesterday!

Submitted by: Ransom Quao

Introduction

Given the opportunity, our classroom experience for students and lecturers would be a much better place if lecturers took the time to think back or reflect on their lectures or lessons. The Lecturers' ability to think back on what or how a planned session went is quite noble since this indicates, to a certain extent, some kind of dedication and love for one's work. The idea of thinking back or reflecting on a lesson or lecture is not at all new to the teaching and learning space. Reflection as described by Saperstem (2015:142) is the expertise –enhancing, metacognition, tacit process whereby personal experience informs practice. For one to know how one learns or teaches is crucial to growth and therefore given the opportunity for lecturers to reflect, should be welcomed as an opportunity to enhance their expertise in the field of teaching and learning. It is up to teachers or lecturers themselves to upskill their teaching, to innovate, to do research in their classroom and to identify learning needs of their students. How is this possible if we, the lecturers, do not take time to reflect on what actually goes on in our classroom? Kathy Jones (2004) suggests several ways in which in which to reflect and become a reflective practitioner:

- Set aside regular time to reflect on your experiences;
- Establish a structure to assist your reflection;
- Use a learning journal to record your experiences and focus your reflections;
- Consider engaging a mentor or peer to assist your reflective practice;
- Create a blog or online discussion group focusing on the development of best practice in teaching in your discipline.

This paper will attempt to link how the above relates to or affects our practice at Rosebank College Sunnyside.

Body:

Set aside regular time to reflect on your experience:

As part of the peer review process, upon completion of a peer review, the lecturer being peer reviewed is given a document upon which to reflect on his or her delivery for the day. The document would require the lecturer to answer a couple of closed ended questions and then afterwards come and sit with the reviewer for discussions. Some of the points the lecturer has to reflect on are as follows:

- I was prepared for class as opposed to ready.
- I engaged with learning outcomes effectively.
- I made students aware of what to expect.

Based on the above points, one could perhaps think that answers to all the above should rather be subjective if we consider the relative settings upon which all lecturers are peer reviewed. What is the difference between being ready for class and being prepared for class? The Oxford Advanced learner's dictionary defines prepared as, ready and able to deal with something and ready as fully prepared for what you are going to do. Clearly, the two words speak to one another with having conferred the same meaning. However, it is my opinion that, when a lecture is prepared for class, he or she should consider several factors before a class; for example, the duration of the class and the tasks that need to be given to the students.

After one of my Business Practice lectures, which had gone rather badly, I took some time off my lunch break to reflect on what had happened in my class. In the course of me pondering, it occurred to me clearly that I had not given much thought preparation before the class. I had assumed that just because my students then were certificate students the lecture would go smoothly. On the contrary, it was not to be. The exercises and activities that I had always used before then were not understood by the certificate students. Upon reflecting on why this had happened, it clearly occurred to me that I should adopt exercises or activities to fit my current students.

Establish a structure to assist your reflection:

In their article: On becoming a reflective teacher, Grant and Zeichner (1984:108) point out that reflection, which is directed toward the improvement of classroom practice, does not necessarily need to take place within the classroom to have an input on classroom practice. The pressures of work every day indeed does not afford one the opportunity to sit quietly after a class in the classroom or lecture room to reflect on issues that may or may not have gone well. However, one is not restricted regarding where one would like to reflect. You could choose to do your reflections anywhere which suites you. The notion of reflective practice has been central to any successful teaching since when one fails to look back at what makes one successful, one would always have to start from the beginning which, in turn, retards progress in the teaching and learning space. What then makes reflective teaching a success? It is my opinion that the characteristics of reflective teaching bear a lot of answers to this question. The characteristics of reflective teaching as stated by Pollard (2002: 12-13) are as follows:

1. Reflective teaching implies an active concern with aims and consequences, as well as means and technical efficiency.
2. Reflective teaching is implied in a cyclical or spiralling process, in which teachers monitor, evaluate and revise their own practice continuously.
3. Reflective teaching requires competence in methods of evidence ess, in which teachers monitor, evaluate and revise their own practice continuously.effective teac
4. Reflective teaching requires attitudes of open-mindedness, responsibility and wholeheartedness.
4. Reflective teaching is based on teacher judgement, informed by evidence pen-mindedness, responsibility and wholeheartedness.

5. Reflective teaching enables teachers to creatively mediate externally developed frameworks for teaching and learning.
6. Reflective teaching, professional learning and personal fulfilment are enhanced through collaboration and dialogue with colleagues.

The lecturer's prime responsibility is to ensure that teaching and learning is actively taking place. This is done by ensuring that the objectives and results thereof are met. The result of the class does not always have to be immediate – especially after a lecture. It can also be done after an ice-task or test. This will then grant the lecturer the opportunity to reflect the long term success of his class or lecture.

Use a learning journal to record your experiences and focus your reflections:
Your experiences in the classroom are valuable to your growth. The more experienced you are the better you tend to engage with students more appropriately. Many experiences go unrecorded and this indeed is a sad loss to teaching and learning. Experiences in the classroom can be a source of reflection for many aspiring young lecturers and those already in the field. Keeping a diary as suggested by Pollard (2002: 49) remains an excellent way of recording classroom or school experiences and ones feelings and perspectives on them. However personal that a diary can be or should be, it can also be a tool for record keeping of experiences which can be used as a source of data for purposes of reflection later. A very personal diary can provide clear and flexible accounts of ideas and feelings. It can offer a safe space to express the emotional side of teaching as well as more systematic attempts to analyse and reflect.

Imagine what it would be like to go over scripts that you had already marked just to get a feel of why students could have answered the way they did. Keeping records of students marks or scripts and attempting to remark and pondering on why students could have made the mistakes they may have made. This may look rather impossible with the fast paced academic life we have on campus – but by perhaps going over scripts that you would have marked, you could, at times, come up with a different opinion that you would have initially had.

Consider engaging a mentor or Peer to assist your reflective practice:
Never let go an opportunity to improve yourself. The more you improve the better you become at what you do. Opportunities are constantly being offered to lecturers upon completion of a peer review for development. These opportunities range from mentoring through to workshops. Lately, most of our new lecturers have all opted to learn the ropes of the trade so to speak through mentoring. The process requires all new lecturers to be paired with a senior lecturer. This is within the context of what Pollard (2002:27) advocates – that mentoring is a means of providing support, challenge and extension of learning of one person through the guidance of another who is more skilled, knowledgeable and experienced particularly in relation to the context in which the learning takes place. The process of mentoring and being guided by mentors gives an excellent opportunity for development of teaching skills and reflective understanding within a subject.

Discussions which take place between a mentor and mentee are recorded as minutes. This would then be kept by both mentor and mentee which, in turn, will be useful documents to reflect on.

Create a blog or online discussion group focusing on the development of best practice in teaching in your discipline:

Although ideal, blogging is quite a challenge for some lecturers, we rather decided to move from this platform to Whatsapp. A group of lectures who had been taken by the idea of reflective teaching had thought it well to sharpen their skills by picking one another's thought. They have had to put together a Whatsapp group for smooth correspondence. In their article, Wani and Rabah et.al (2013:502) clearly outline Whatsapp to be an early stage technology start –up founded to build a better short message alternative for smart phones. Using the Whatsapp platform, lecturers were able to share ideas and concepts as well as experiences with their mentors instantly. This platform provided opportunities for reflective teaching instantly and anywhere. New lecturers found this platform to be very useful in that, issues they would have brought out for discussion were participated in by quite a number of lecturers who also shared their thoughts and experiences.

Conclusion:

Lecturers can expect to raise their standard of teaching or lecturing by being more reflective in their practice. The suggested ways in this book in which to be reflective is rather subjective. One can only know of its' validity by attempting to practice at least one. The few that I have tried is what I have written on. I do hope that more lecturers would venture to do likewise in future.

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