Submit Action Research Report

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1 TITLE

An Investigation into the Implementation of an Online Tutorial System for Taxation 1 in an Endeavour to Increase Pass Rates and the Quality of Students Through the System

2 CONTEXT

There are several factors that work in unison to affect the performance of a student. Be it their individual learning style, motivation or ability to access study material, generally students have retrogressed some what in their ability to study effectively, when left to their own devises. The current status quo experienced within the Faculty of Accounting is a de-generation of the quality of learner, partly due to the fact that commerce itself is a practical subject matter and without proper practical experience having been attained via the completion of tutorials no student can attempt to achieve a successful career in the working world. The reasons for this have not been explored in this paper, and can be the subject matter of a study on its own merit. However, one area that will be extrapolated is the possible evolution of the current generation of learner, co-existing in this “E-generation” of never ending upgrades of electronic devises.

To this end, if a student is requested to complete a set of homework to be discussed at the next lecture period, in most instances approximately only 5% of the group of students would have attempted the work, which leaves 95% of students staring at the lecturer having already fallen into an “abyss of uncertain”. Changing the dynamics of the situation and allocating marks as a DP requirement for tutorial submissions and the tables turn. Experience has dictated that now approximately 90% of students attempt the required work.

Well before, we can shout our “hallelujahs” the problem is the administration of this process. At second year level we are dealing with approximately 800-900 students shared amongst 3 or 4 lecturers, who also lecture additional subjects. Tutorials are attempted on a weekly basis and in order to effectively manage this DP requirement the attempt of approximately 200 students per lecturer needs to be marked. In addition before the lecturer can mark the tutorial he or she has to collect all these attempts within the one hour lecture period. In an ideal world tutorials should be conduct in smaller groups; however several factors come into play. Firstly, venues to accommodate groups of 30 and adequately trained and skilled tutors are required.

At the SAAA Conference, Kruger. A, had indicated that the University of
KwaZulu Natal implemented a tutorial system within the Taxation 3 module of providing smaller class sizes, more interactive learning, more tutor training and better feedback to students. The resultant impact was a 24% increase in the pass rate of students. The cost of this achievement was in the region of R 1 000 000, which was sponsored once off by South African Institute of Chartered Accountants.

It is evident that the phenomenon experienced at Durban University of Technology is not unique to this institution. However, being a University of Technology our marketability in the work place is achieving a graduate who can “hit the road running” having achieved a qualification that has provided a higher practical element to the theoretical framework.

If we lose this trait there are serious ramifications for our students and the institution as a whole. This paper seeks conceptualise a web based classroom as a mechanism to administer a tutorial programme with the Taxation 1 classroom.

3 CHALLENGES

Challenges that lie in the current system are fraught with frustrations from a lecturer and student perspective.

Students are lectured in a medium that is a second language to majority of the learners. Taxation in itself is highly fluted with terminology that presents a problem with English first language speakers. The content of the module is governed by legislation contained within the Income Tax Act. The language within the Act has several interpretation issues and simple key words like and or can change the entire understanding of a particular section of legislation. Students are required to take the theory contained within the act and convert it into the practical application of the subject matter which ultimately results in the calculation of taxation due and the completion of statutory returns. It is this problem that creates one of the major obstacles experienced by students because they fail to visualise or make the connection between the construct of theory within the act, which can be subjective by it’s very nature due to interpretation to the calculations presented by the actual rands and cents.

The groups of students are too large to enable an interactive class. Current phenomenon present in classroom when asked if students understand a particular concept is reciprocated by a “deadly silence”. Students would rather remain in a state of confusion rather than request help. Student would rather ask a question on a one on one basis as opposed to discussing a question in an open forum.

The sole mechanism in delivery of lectures is reliant on auditory stimulus. Poorly equipped lecture theatres in terms of overcrowding and auditory systems impact the student’s ability to benefit from a lecture.
Part Time students have a limited interaction in the classroom due to time constraints; consequently it is impractical to attempt a tutorial session as a result of this.

Copious volumes of marking and time constraints placed on lecturers negatively impact on the feedback system, required by students to facilitate their understanding.

Multiple lecturers, lecture to groups within the subject. This presents problems in that different lecturers have different lecturing styles and it is difficult to speak to all students with “one voice”.

The implementation of web based learning would seek to alleviate these challenges in following ways:

1. Bridging the gap between the construct of the theory and practical aspect of Taxation would be facilitated by the ability to design the content of the material to reference the act to the practical aspect, in terms of hyperlinks, which generally students tend to get lost when you flip from one transparency to the next. Also by completing online assessments the students receive feedback to their responses which is catered to the individual where as in the normally classroom scenario students merely receives a solution, however the student does not receive the reason why the desired answer is correct.

2. There are possibilities that students would be less intimidated to use the discussion tool in an online classroom than to raise their hand in a physical classroom.

3. Feedback is not only required by the student but it is also vital from a lecturer perspective in that lecturers can detect areas of poor understanding and attempt to tackle different mechanisms to bring the issue across to the student to enhance understanding. There are several possibilities that exist like webquests that can be used by a lecturer. Generally, it is taken for granted that online classrooms are interesting and fun from a student perspective, but the excitement of an online classroom spills over to the lecture as the is now a myriad of possibilities from an delivery mechanism.

4. The system also enables the ability to cater for different learning styles, by incorporating the visual stimulus as a support to the auditory stimulus.

5. Time constraints experienced in a part time group can be alleviated by the complete online tutorial system.

6. Greatest invention of an online system is no marking from a lecturer and immediate feedback to students.

7. An online system makes it possible to address all students within the subject, ensuring that there is consistency in the message delivered. If an area is not covered by a lecturer it presents problems for the entire group, an online system would address this problem area.
There are numerous education theories. As such it is difficult to narrow down the theories as several theories co-exist together. Dunn, R indicates that it is logical to believe that college students know how to study. The natural deduction is that if this assumption were not true, how could the student have succeeded well enough in high school to warrant admission into college? The response to this assumption is that: High school teachers tend to spoon feed their students. They feel that if they "don't cover the curriculum," their students won't learn it! One outcome appears to be that at least 25 percent of freshmen fail or are placed on probation when, for the first time, they need to:

- listen to a lecture and intuit "what is important";
- listen to a lecture and take notes for studying for the test;
- listen to a lecture and remember three-quarters of what they hear;
- read and intuit what is important;
- read and take notes for studying for the test; and
- remember three-quarters of what they read.

The physical classroom adopts a policy of "one size fits all" and does not account for individual differences in learning styles. In addressing this phenomenon, research indicates that matching students' learning-style preferences with educational interventions compatible with those preferences is beneficial to their academic achievement.

Ring and Mathieu (2002) suggest that online learning should have high authenticity (i.e., students should learn in the context of the workplace), high interactivity, and high collaboration.

Learners should be motivated to learn. It does not matter how effective the online materials are, if learners are not motivated, they will not learn. The issue is whether to use intrinsic motivation (driven from within the learner) or extrinsic motivation (instructor and performance driven). Designers of online learning materials should use intrinsic motivation strategies (Malone, 1981); however, extrinsic motivation should also be used since some learners are motivated by externally driven methods. Keller proposed a model (ARCS—attention, relevance, confidence, satisfaction) for motivating learners during learning (Keller & Suzuki, 1988).

Knowledge construction is facilitated by good interactive online instruction, since the students have to take the initiative to learn and to interact with other students and the instructor, and because the learning agenda is controlled by the student (Murphy & Cifuentes, 2001).

Hirumi (2002) proposed a framework of interaction in online learning that consists of three levels. Level one is learner-self interaction, which occurs within the learner to help the learner monitor and regulate their own learning.
Level two interaction is learner-human and learner-non-human interactions, where the learner interacts with human and non-human resources. Level three is learner-instruction interaction, which consists of activities to achieve a learning outcome.

5  METHODOLOGY

The research methodology used in this study, is Action Research. Action research is true to it’s name, it entails action and research or act and review, then act and review. Put simply, action research is “learning by doing” - a group of people identify a problem, do something to resolve it, see how successful their efforts were, and if not satisfied, try again. While this is the essence of the approach, there are other key attributes of action research that differentiate it from common problem-solving activities that we all engage in every day. Action research is used in real situations, rather than in experimental studies, since its primary focus is on solving real problems. It can, however, be used by social scientists for pilot research, especially when the situation is too ambiguous to frame a precise research question. Mostly, though, in accordance with its principles, it is chosen when circumstances require flexibility, the involvement of the people in the research, or change must take place quickly or holistically.

It is often the case that those who apply this approach are practitioners who wish to improve understanding of their practice, social change activists trying to mount an action campaign, or, more likely, academics who are aware of a problem requiring action research.

Susman, G (1983) distinguishes five phases to be conducted within each research cycle. Initially, a problem is identified and data is collected for a more detailed diagnosis. This is followed by a collective postulation of several possible solutions, from which a single plan of action emerges and is implemented. Data on the results of the intervention are collected and analysed, and the findings are interpreted in light of how successful the action has been. At this point, the problem is re-assessed and the process begins another cycle. This process continues until the problem is resolved.

Action Research is more of a holistic approach to problem-solving, rather than a single method for collecting and analyzing data. Thus, it allows for several different research tools to be used as the project is conducted. These various methods, which are generally common to the qualitative research paradigm, include: keeping a research journal, document collection and analysis, participant observation recordings, questionnaire surveys, structured and unstructured interviews, and case studies.
6 DESIGN

The vision

The vision is to incorporate a practice of blended learning within the discipline of Taxation by effectively incorporating a formalised online tutorial programme, aimed at increasing student interaction with the subject matter thereby successfully increasing the pass rate and quality of students entering the job market.

6.1 The online classroom is a new frontier enabling engagement with the “E-generation” of learner and the possibilities that lie ahead are an endless, untapped area of investigation to infinity and beyond....

....possibly the evolution of the all inspired generation of the “E-Teacher” tackling technology and appreciating the jewels that lie within!

Active learning

Learning should be an active process, ensuring students conduct activities which facilitates students processing information, thereby creating an environment where the student can personally conceptualise the subject matter. Tutorials are a depiction of real life scenarios. Currently, students do not complete weekly tutorials unless it is a DP requirement. An online tutorial programme will enable the students to submit tutorials online, for it to be marked and feedback provided immediately. By learner participation in this programme students would be able to engage with the practical aspect of the course. In addition the lecture would be able to understand shortfalls in the student’s answers and seek mechanism to take corrective measures in addressing student’s misunderstandings. Generally this is only established after and examination and at this stage is too late to address with the learners, timeously. With the premise that students are to “hit the ground running” these issues are never addressed with the student and the student is faced with learning these issues the hard way, while on the job.

Working smart

A life with limited marking is an absolute dream come true for any academic. This efficiency in time affords the lecturer more time to be responsive to the needs of the student. As well, not having to be tied down to the confines of time for both the student and the learner remove limitation previously placed on a classroom. The online classroom removes the administrative nightmare of ascertaining which students have complied with tasks and identifying non-compliant students, in addition it also assists in the problem of submission deadlines and a penalty system.
for late submission which are difficult to enforce in practice. If the implementation of the online system goes according to plan then it would remove most of the pitfalls associated with the profession and make my life a pleasure and ultimately give me the time and the mental capacity to be more creative in my teaching styles.

**Blended learning**

Blended learning by it’s mere name indicates a mixture of face to face interaction with online interaction. The goal of blended learning is to provide the most efficient and effective instruction experience by combining delivery modes. This environment presents a student with the benefits of engaging with textual, visual and verbal information, thereby endeavouring to cater for the learner’s individual learning style.

Watson, G explains that, firstly, there is no single type of blended education, and over time we can expect all the spaces along the continuum from fully online to fully face-to-face to be filled. Online curricula will evolve as a ubiquitous component of classroom instruction. At the same time, an increasing number of programs that are primarily distance-based may include a face-to-face teaching component. Programs designed to use a blended approach from the outset are still in a learning mode, and experience and data will provide guidelines, but absolutes will be hard to find.

Second, in the same way that online teaching is recognised as different than face-to-face teaching, blended learning is also unique and requires new methods of instruction, content development, and professional development. Online program leaders know that they cannot simply use face-to-face teaching methods in an online class, and vice versa. In addition, as content delivery becomes increasingly digital and online, assessments will need to be designed to test for content presented in various formats.

The use of computers and online learning in education requires a much larger shift in thinking than simply adding a few computers to classrooms. Truly blended learning requires that teachers approach their role differently, as guides and mentors instead of purveyors of information.

Classrooms must be redefined as flexible learning environments, in which students learn in a variety of ways, while communicating and collaborating with others who are outside their classroom. Learning should go beyond the classroom walls and the confines. For these changes to be successful they must be supported by professional development for existing lecturers, and pre-service education for future lecturers.
IMPLEMENTATION

Pilot activity

The online classroom was piloted to a group of BTech students. They were introduced to the functionality of the online classroom and thereafter requested to complete the online quiz. The online quiz will form the basis of the weekly tutorial interactions with students. The students were thereafter requested to provide feedback on their interaction within the online classroom. The student responses are detailed below.

Relevance

The expectations in terms of the online system were confirmed. The marking and feedback is nothing short of a miraculous invention. Students found the tools fun and exciting mechanism to enhance learning. They related to the content in the manner that it was delivered. Generally, I believe there is a greater expectation of problems being experienced with computer hardware and lack of availability of band width as well as adequate workstations as opposed to the software itself. As the saying goes “the proof is in the pudding”. The true test of the pilot will only be received once implemented.

Feedback

The BTech students that were involved in the pilot, completed Taxation 1 in their National Higher certificate. Their first response was that of jealous in that they were not afforded the opportunity to have had a online classroom available when they completed the course. They had indicated that the various tools available would have provided greater support to the learning process. The only resource available to them was their text book which posed problems, in terms of their understand because of the “high” language utilised. The overall site was perceived to be fun and they enjoyed the weekly motivational comic announcements. They further indicated that the site had given a starting reference point, which they battled with. The weblinks area was also seen to be an advantage in that they were able to source relevant information at easy and faster. Chat room was also a tool that they indicated would have facilitated peer interaction. They found this to be one of the exciting highlights. With regard, to the online quiz they found that feedback received was amazing. Firstly, the assessment was immediate and in addition the reason for the correct answer we provided. This was seen as vital as to the learning process as student were advised of the correct answer, but not always the reason for the answer under the traditional teaching system. Overall, they were pleased with what the system had on offer.
REFLECTION

Assumptions

Assumptions were based on the fact that approximately 90% of the students would actually complete the tutorials weekly. This assumption can only be effectively tested in the live pilot next semester. The other assumption is that the practical aspect of tax could be tested using multiple choice questions, true and false, and fill in the blanks types of assessments. This could suffice in the interim however more detailed assessments would need to be implemented to ensure students had the ability to be practical proficient in the discipline of Taxation.

Future adjustments

The type of assessments utilised with the quiz tool is multiple choice questions, true and false, and fill in the blanks. These assessments will be used in the interim. However, greater investigation needs to be made with regard to the extrapolation of more complex calculations. The nature of these calculations can be tested via the current functionalities, however in order to attain greater active learning students need to be able to read problem solving scenarios and attempt a question from scratch. Taxation is dependent on following several steps in order to get to the correct answer. The web-based tool used will be required to take these factors into account.

Impact

The impact of this intervention has re-invented the teaching and learning process for all parties involved including, myself, my learners, the curriculum lectured and the institution. The teaching and learning process is more interactive and seeks to engender a culture of learning amongst the students providing them with greater accountability with regard to teaching. Prior to this exciting software, students left the sole teaching process to the lecturer. Through the various tools it is now possible for the student to be an active participant.

Lessons learnt

It is possible for life to get better! Prior to the course my primary interest was to deliver a lecture effectively to my students. I had obtained a wealth of knowledge regarding the discipline of Taxation but knew nothing regarding education and the numerous theories that exist. I believe that this course has awakened a spiritual and philosophical side to teaching and learning for me and put me more in touch with trying to understand
the student and the learning process. I now believe that having gone through this process I am better qualified to stand in front of a classroom and lecture to students, previously my only understanding was derived from my own personal experience as a student. I am now able to put things into perspective and have a proper understanding and explanation for my experiences. Lastly, I have to add that one day I would like to aspire to be as great a teacher as Mari Pete. Her patience, understanding and compassion for her students foster an environment where a student can find a safe space to explore and discover ones self. Hopefully now that I will have more time due to the online classroom I will have the time to work on attaining those qualities. Thank you Mari and God Bless you, you are doing an amazing job!

9 BIBLIOGRAPHY


