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Strategies for promoting active learning in tutorials: Insights gained from a first-year accounting subject

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Abstract

This paper provides a description of the experience of, and reflection on, employing authentic learning and teaching activities to encourage participation and active learning in tutorial classes in a first-year accounting subject. The lack of student participation and engagement in tutorials is recognised as an issue by many academics. Student's interest in developing accounting knowledge is further dampened by a perceived lack of relevance between textbook theories and practice. Using an action research model, this paper therefore describes and analyses strategies for dealing with these problems and stimulating student interest in learning.

Keywords

Active learning, learning and teaching activity, promoting participation, accounting tutorials.

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1. Introduction

The introductory accounting subject in university courses is the most common preliminary exposure to accounting for many business majors, including accounting major students. The learning outcomes derived from this subject therefore play an important role in influencing their perception of, and interest in, accounting.

Because of a widespread problem of lack of student participation in tutorials (Keddie and Trotter, 1998; Biggs, 1999; Ramsden, 2003), the author decided to carry out research into how to improve the conduct of accounting tutorials. One possible cause that was identified was students' pre-conceived ideas about the content and purpose of tutorials: they simply wanted to be given solutions to tutorial questions rather than discussing those questions and participating actively in learning. To deal with this problem, the author introduced authentic learning and teaching activities in the tutorials of a first-year accounting subject, Accounting 1: Information for Business. The aim of these activities was to encourage participation and stimulate student interest in the accounting tutorials.

The author's research, which focused on the positive learning experience in accounting tutorials, is a work-in-progress that forms part of a long-term project on incorporating constructive alignment between curriculum design, policy and practice.

The resultant paper commences with an introduction to the literature on the role of accounting tutorials, associated problems, and the prospective contribution of promoting active learning and deep learning as strategies to address these problems. The next section of the paper outlines the use of action research as the framework for the project. This is followed by a description of four authentic learning and teaching activities that were employed in tutorial classes. An

analysis of the impact of these learning experiences on student participation and interest in the accounting tutorials is then presented. The paper concludes with reflections on the teaching and learning experience and the notion of alignment between curriculum objectives, teaching and learning activities, and assessment tasks.

2. Literature review

Many educators have recognised the problem of students' lack of participation in tutorials (see for example, Biggs, 1999; Ramsden, 2003). This problem is also recognised by accounting educators and students (Keddie and Trotter, 1998; Marriot and Marriot, 2003).

The causes of the problem seem to be inter-related and can be analysed on two fronts. From the teachers' perspective, the most frequently quoted negative experience was that students 'are often silent and ill-prepared, and the tutor often finds himself giving a lecture' (Collier, 1985, p.7); and that students want to be given solutions to problems rather than discussing them (Keddie and Trotter, 1998). From the students' perspective, the reasons for non-participation included their perception that 'the tutors talk too much and are giving lectures rather than conducting dialogues' (Ramsden, 2003 p.149).

A study carried out by Mladenovic (2000) also showed that negative perceptions of accounting were common among introductory accounting students. Buckmaster and Craig (2000, p.375) further comment that perceptions such as 'accounting is dull in content and unadventurous in mode' can discourage students from participating in accounting tutorials.

There have been numerous concerns expressed by various sources about the relevance of current accounting education practices for preparing students to face the challenges of a rapidly changing business and professional

environment in the new century (AECC, 1990; Mathews, 1990; Williams, 1993; Albrecht and Sack, 2000). For example, the Accounting Education Change Commission advocates that 'students must be active participants in the learning process, not passive recipients of information' (AECC, 1990, p.309).

Adler and Milne (1997a, p.273) state that 'active student learning involves learning tasks which embody generic skills and attitude development, as well as the acquisition of a knowledge base, and in which the learners take some control and responsibility for their own learning.' In other words, active learning enhances the positive learning process experienced by students and can thus be considered a strategy that complements the fostering of deep approaches to learning.

Four key elements associated with the fostering of a deep approach are of particular relevance to tutorials: motivational context, learner activity, interaction with others, and a well-structured knowledge base (Biggs, 1989). Various studies have also discussed employing techniques such as group-work (Tempone and Martin, 1999), case studies (Boyce, Williams, Kelly and Yee, 2001) and hands-on conceptual models (Kern, 2002) to stimulate student interest and enthusiasm, and enhance their learning of accounting concepts. In an introductory accounting subject where students are exposed to fundamental accounting concepts such as the accounting equation and double entry system, accounting educators therefore need to design and implement strategies to make the learning of such concepts relevant and meaningful for both business and accounting students.

3. Research Method

Action research provided an appropriate framework to consider the impact of learning experiences on teachers and students because it focused on reflecting and improving teaching practice. Action research is a term that describes

approaches to inquiry that are participative, grounded in experience, and actionoriented (Reason and Bradbury, 2001). An expansion of this view is offered by Mills (2003), who considers action research to be systematic inquiry conducted by teacher-researchers for the purposes of gaining insight about how they teach and how well their students learn, developing reflective practice, and improving learning outcomes.

Action research is a process of self-education for the practitioner, which often proceeds through a spiral of planning, acting, observing and reflecting (Kemmis and McTaggart, 1988). Its objectives are improvement in three areas: the practice, understanding of the practice by its practitioners, and the situation in which the practice takes place (Carr and Kemmis, 1986). In this paper, the above objectives were translated into improving the author's teaching practice, understanding of her approaches to teaching, and the quality of learning outcomes for students in tutorials.

4. Learning and teaching activities

This section describes four learning and teaching activities that were designed and implemented in accounting tutorials to stimulate students' interest in learning accounting and encourage participation in tutorials. These activities were designed along the theme of authentic learning and teaching strategy that provides relevance between textbook theories with real life application so as to promote active learning, deep learning and enable the development of personalised knowledge.

4.1 Promoting active learning - Accounts classification activity

Glasser (1988) asserted that:

being active while learning is better than being inactive. Most people learn only 10% of what they read, 20% of what they hear, 30% of what they see, 50% of what they see

and hear, 70% of what they talk over with others, 80% of what they use and do in real life and 95% when they teach someone else (Glasser, 1988 cited in Biggs 1999, p.78).

The concept of the accounting equation and classification of different accounts into their respective asset (A), liability (L) and owners' equity (OE) categories are essential building blocks in an introductory accounting subject. Using a hands-on activity can encourage student participation as well as help students to understand this important concept in a fun and easy way.

For example, when students in a tutorial came up with different answers to a multiple-choice question about what a debit was used to record, the author decided it would be more effective for the students to discover the solution themselves through participating in an account classification activity. This activity was similar to a puzzle exercise and involved the preparation of 30 accounts in strip pieces.

The tutorial class was divided into three groups of A, L and OE, with each being responsible for identifying those accounts that belonged to their group. The groups were also required to draw up T-accounts on butcher's paper and 'post' their entries (strip pieces) to the normal balance side of the T-account. They were assigned ten minutes for this activity, followed by five minutes for presenting their findings to the class.

After dividing the students into three groups, the author walked around the class offering a few hints, especially with regard to some of the expense items as some students were confused about the nature of expenses versus liabilities. When they returned to the multiple choice question after this activity, the students were able to visualise when and where to debit/credit, based upon their joint efforts recorded on butcher's paper that was pinned to the wall for reference.

The outcome of the activity validated the author's belief that the role of a teacher is not about transmission of information but making learning possible (Ramsden, 2003). This was achieved by finding out about students' misunderstandings and creating a learning context for them to construct meanings and discover knowledge themselves. Prosser and Trigwell (1999) asserted that students learn far more if they discover things themselves rather than being told facts or conventions to learn.

There was a mixed response to the activity. While some students enjoyed this type of hands-on activity, as evidenced by one student's comment after the class that the activity reinforced her understanding of what she had read in the textbook, a few mature-aged students commented that it was 'veggie maths' – it was too simple for them. What the author learnt from these comments was that each student had a different learning style and she could not please everyone. While there was a small number of mature-aged students in the tutorials, the majority of the class was comprised of first year students who had just finished their Higher School Certificate. Consequently, the author's teaching style and learning and teaching strategies needed to accommodate the needs of the majority of the class. This simple hands-on activity could be seen as a warm-up for developing more challenging activities as the semester progressed.

4.2 Increasing learning by proceeding from the opposite direction – Forensic accounting activity

Gardner (1999) suggested that teaching in different ways may trigger multiple intelligences and thus increase learning. In particular, Gardner (1999, p.176) asserted that:

by going beyond analogies – indeed proceeding in the opposite direction – teachers and students can seek to make representation as accurate and comprehensive as possible. And insomuch as each representation necessarily highlights certain features of the topic while minimising others, the ultimate goal is to synthesize the various representations as comprehensively as possible.

Learning how to record transactions by journal entries can be made more challenging by 'proceeding in the opposite direction' (Gardner, 1999). Based on this premise, the author designed a group activity around a question that contained incorrect journal entries. Students were then asked to locate mistakes and make corrections. Because students needed to identify what had gone wrong in that business, this exercise was named 'Forensic Accounting Activity'.

To promote peer learning, the author again divided the students into three groups for the categories of A, L and OE, with each responsible for identifying wrong entries that related to their group. The groups were given a copy of the journal question and an overhead slide on which to record corrections. A group was then asked to present its findings while the other groups verified their own findings.

This activity enabled students not only to learn the concept from a different perspective but also through different sense modalities (Biggs, 1999). Within the groups there were lively discussions concerned with solving the task, with some students teaching others why certain entries were incorrect. This was an effective activity that promoted the use of multiple intelligences, provided an opportunity for active and interactive consideration, and promoted communication and interpersonal skills.

4.3 Promoting deep learning – Analysing the world's most profitable money machine

One of the key elements associated with the fostering of a deep approach to learning is the motivational context which incorporates the involvement in what is to be learnt, how it should be learnt, and the emotional climate of learning (Biggs, 1989). A motivational context can be constructed through the use of cases, whereby real-world scenarios are presented as the basis of study. This provides a connection to the external world with which students interact, thereby

stimulating their interest and enthusiasm and enhancing learning (Boyce *et al.*, 2001).

Once a motivational context is established, students are more likely to adopt a deep approach to learning because it is a more satisfying way to study (Biggs, 1999; Ramsden, 2003). Such an approach:

... allows students to use academic knowledge to control and clarify the world outside academic knowledge... [and] achieve superior learning outcomes such as the making of an argument, the novel application of a concept, mastery of relevant detail and relating evidence correctly with conclusions (Ramsden, 2003, p. 60).

The author applied the principle of deep learning to a topic on using ratio analysis to assess business performance. To overcome learning problems that first-year students often experience in analysing and interpreting formulas (Ramsden, 2003), she designed an activity that involved working on a real case. This case study was based on a *Business Week* article about Louis Vuitton Moet Hennessy, titled 'Inside the world's most profitably money-machine'.

The author printed the financial statements from Louis Vuitton's 2003 Annual Report and distributed them to four groups in the class. The groups were then asked to analyse this powerful company in terms of financial health and performance, using ratio analysis techniques such as the current ratio and inventory turnover.

In contrast with conventional tutorial exercises, where financial data are given, this activity required students to locate the financial data from the relevant section of the annual report and calculate the appropriate ratios for analysis. When students worked out inventory turnover, which happened to be very low (a three-year average of 1.2), they speculated why such a low turnover could result in the company being so profitable. This task again provided an opportunity for peer learning when some students realised, and then explained,

that the high price tag of the company's products, such as handbags, would result in a lower inventory turnover than that of a grocery store.

This activity promoted deep learning as it required students to interpret and apply ratios in assessing the company. The use of a case study encouraged active involvement in the learning process by promoting judgement to resolve uncertainty, and thereby generated deeper understanding (Boyce *et al.*, 2001). Consequently, students' understanding of the meaning behind the formulas was enhanced when they analysed the trends and argued the causes behind the contradicting ratios. The case study was therefore an effective teaching method for providing a connection to the external world so that students could become aware of the ambiguities and complexities of real-world decision-making.

4.4 Enabling personalised knowledge – Developing a cash budget for the semester

Some educators have suggested that learning takes place when students study a topic in depth and approach it from a number of different perspectives. By integrating newly gained knowledge into their own worlds through comparison and contrast, they are able to personalise knowledge (Marton and Booth, 1997; Biggs, 1999).

With the aim of providing a meaningful purpose for studying the topic on cash flow and managing cash using cash budgets, the author designed an activity where students could apply the accounting concepts into their everyday life. Coincidentally, the Federal Budget was released that same week, which allowed her to demonstrate how the topic was relevant to the real world. For example, the author showed the class what a government budget looked like, and generated discussion on budgeting as an accounting technique used widely among individuals, businesses and governments. She also reinforced the idea that everyone can apply accounting knowledge to manage finances and promote long-term wealth management.

The group activity involved students in developing personal cash budgets for the semester. They worked in groups to estimate their cash receipts (source of income) and cash payments (expenses) and presented their budget to the class. This cash budget showed whether they would be in surplus or deficit for the semester. The presenters were also asked to discuss how they would go about investing the surplus or financing the deficit.

Some students were particularly enthusiastic about this activity, although a few others were concerned about disclosing their finances. The first presentation was by a female team and the second by a male team. Students appreciated the types of expenditure based on gender – it appeared that there were some noticeable distinctions in terms of spending on alcohol and skin care products.

This activity helped students to personalise the knowledge by promoting an appreciation of accounting concepts based on relevant, real life examples. It also provided an opportunity to develop students' generic skills such as teamwork, communication and presentation skills within the context of the accounting discipline.

5. Analysis and outcomes of these learning and teaching activities

The impact of these learning and teaching activities was analysed with reference to students' feedback and peer evaluation. The literature suggests the importance of evaluation in the process of improving teaching and student learning and as a continuous process during and after a course (Ramsden, 2003).

Informal evaluation, using the Harvard one-minute paper^a, provided feedback immediately after conducting two of the learning and teaching activities. Two senior colleagues accepted invitations to observe and comment on the author's classes on separate occasions. At the end of the semester, student evaluations of tutoring were also conducted by the University's Centre for Enhancing Learning and Teaching (CELT).

The first Harvard one-minute evaluation was carried out after the forensic accounting activity. It posed three questions for students to answer:

- 1. What is one aspect of my teaching that you find helpful in your understanding of the topic?
- 2. What point in today's tutorial was the least clear to you?
- 3. Any other comment.

The activity seemed to be welcomed by most students, as evidenced by their feedback, such as:

Hey it is fun, relaxed and enjoyable! And you learn stuff at the same time!

I like the way we do group activities and you really explain everything until we understand. Everything is mostly clear to me.

Fun, easy going helps me understand a lot better. Positive teaching helps (which is what you do).

Very well organised. All explanations are very clear. I did enjoy and get a lot out of the group work that we did.

Students' feedback was mostly positive on the one-minute papers. There were, however, some students who viewed the forensic accounting activity as too complicated, but they did not record their comments. Instead, a student studying Human Movement and Marketing chose to stay after the class and questioned why he needed to be bothered with all these details. The author

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^a The Harvard one-minute paper is a set of short questions asked at the end of a tutorial or other teaching session to gain immediate, written feedback from students about the quality of teaching.

then explained how he could use this accounting knowledge in operating a business – he would need to know where the accounting information came from in order to make sound business decisions. Other students commented that, in addition to group activities, they would like to do more practice tests in the tutorial, particularly in the lead-up to the final examination.

The generally positive feedback from the two tutorial classes indicated that the author's teaching approaches and design of group activities, thus far, had been helpful to students' understanding of the subject. This motivated her to continue experimenting with authentic learning and teaching activities in tutorials.

The second Harvard one-minute feedback was conducted after the cash budget activity. The following questions were asked:

- 1. What was the muddlest point in today's tutorial?
- 2. What is the one thing I do when I teach that you would like me to change/discontinue because it doesn't help you/it confuses you/it distracts you?
- 3. Write down one idea that you believe will make these classes more interesting.

Some comments included:

- 1. Current assets, current liabilities. 2. Your teaching style suits me very much so there is nothing I would like you to discontinue. 3. More presentations: we actually open our mouths \odot
- 1. Don't use the word "muddiest". 2. No, but very good so far...3. Sometimes the wording of explanations can be a little confusing (but that is a language/culture thing) your effort shows. PowerPoint are clear (could use sounds)!!
- 1. When you provide definitions etc. allow time to write it down as we can have a summary type thing of the topic. 2. The rest is all good! Thank you!
- 1. The muddiest point was breaking into groups. 2. Nothing, I found the tutorial very encouraging and your presentation clear. 3. I found the tutorial well set out and very clear. Keep up the good work!
- 1. After each tutorial I understand a lot more. 2. There was not anything that I did not understand today. 3. I really like class activities and presenting our ideas to the class.
- 1. Classes are more active, no real problems. 2. More depth to questions is good. 3. Enjoying accounting finally.

Students' one-minute feedback allowed the author to find out their misconceptions about some topics and take prompt, corrective action. This ranged from explaining certain concepts again in subsequent tutorials to providing clearer instruction on the forming of groups for tutorial activities. By responding to students' feedback, such as the suggestion to allow time to write down the summary, the author conveyed her intention to develop and improve her teaching practice to meet their learning needs.

In addition to students' feedback, peer evaluation by colleagues from both within and outside the accounting discipline provided an opportunity for validating the author's teaching practice. The comments from the educational designer and the lecturer in psychology indicated that the group activities were successful in engaging student participation and stimulating their interest in the topic under study.

A customised survey was also conducted in the final teaching week of the semester. The survey aimed to evaluate the author's teaching in terms of promoting active and deep approaches to learning, encouraging student participation, and generic skills development. There were 15 questions in the survey (see Appendix 1), with 21 respondents from a population of two tutorial classes totalling 36 students, yielding a response rate of 58%. The responses were mainly from those students who had consistent attendance over the semester and those who attended the final tutorial.

The results of the student survey were consistent with the feedback from the Harvard one-minute papers, and indicated that the author had clearly explained concepts (mean 6.23, range 0-7); stimulated students to think and feel involved in the classes (mean 6.23); encouraged students to express their views on the topic (mean 6.05); motivated students to think critically (mean 6.0) and, in general, appeared enthusiastic in her teaching (mean 6.76).

6. Conclusion

The problem of lack of student participation in tutorials can be overcome by employing authentic learning and teaching activities that promote active learning. As Posser and Trigwell (1999, p.7) asserted, 'we as teachers can do something about learning – not by changing the students, but by trying to change the context experienced by the student'. This echoes with the notion of critical engagement (McMillan and Cheney, 1996, cited in Buckmaster and Craig, 2000), and is consistent with the style of teaching proposed by Buckmaster and Craig (2000, p.382), whereby the classroom dynamic ensures that 'students are not distanced from the educational process; rather they are engaged and included as co-creators of their educational experience'. In other words, accounting educators can promote student participation in tutorials by creating an active learning environment.

The experience of designing and implementing authentic teaching and learning activities in accounting tutorials validates and reinforces the author's belief that the role of a teacher is not about transmission of information but facilitating student learning. By providing a motivational context and authenticity that link textbook theories with real life scenarios, accounting educators will be in a better position to encourage students to adopt deep approaches to learning.

It is recognised that the learning experience derived from tutorial participation only forms part of a subject's learning outcomes. It is therefore the author's intention to learn about the notion of constructive alignment as curriculum objectives, policy and assessment tasks are inter-related with the design of learning and teaching activities in tutorials and are all important in shaping the learning outcomes experienced by students.

The author hopes that the learning and teaching strategies and activities described in this paper may be of help to other teachers who are experiencing problems with lack of student participation in their tutorials, as well as to those teachers looking to renew and revitalise their teaching practices so as to enrich students learning in tutorials.

Appendix 1

Student Evaluation of Tutoring, Autumn 2004

ACC100 – Accounting 1: Information for Business

- 1. The tutor clearly explained concepts during tutorial sessions, which I found difficult in lectures.
- 2. The tutor explained any difficulties I found in pre-tutorial activities clearly.
- 3. The tutor stimulated me to think in her sessions and made me feel involved.
- 4. The tutor clearly explained things I found difficult about assignments.
- 5. The tutor provided feedback that facilitated my learning.
- 6. The tutor dealt with topics in a manner that stimulated my interest.
- 7. The tutor encouraged me to express my views on the topic in her sessions.
- 8. The tutor used a variety of appropriate methods to involve me in learning the subject.
- The tutor's approach helped develop my confidence in tackling unfamiliar problems.
- 10. The tutor introduced stimulating ideas about the subject.
- 11. The tutor's approach helped develop my problem-solving skills.
- 12. The tutor's approach helped improve my oral communication skills.
- 13. The tutor's overall approach helped me develop other skills (eg. Analytic skills, time management skills, teamwork skills, general communication skills, etc.).
- 14. Overall, the tutor motivated me to do my best work that enabled me to think critically about issues pertaining to the subject.
- 15. In general, the tutor appeared enthusiastic in her teaching.

Scale:

7 = very strongly agree, 4 = neither agree nor disagree, and 1 = very strongly disagree.

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