Using assessment and reflexive teaching practices to inform and guide changes to the teaching and learning activities in Introductory Accounting

L P Bezuidenhout
L.Bezuidenhout@ru.ac.za
046 603 8201 / 082 787 5391
Department of Accounting
Rhodes University
Grahamstown

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Teaching accounting to first year university students in higher education institutions is becoming increasingly complex as we deal with increasing class sizes, increasing diversity and a student body which appears to be less inclined to study without external motivating factors, while to be successful in studying accounting requires more than passive learning.

Our aim was to make our students active participants in their accounting studies.

After studying established research into assessment and approaches to student learning, changes were made to our course to ensure increased and active participation from our students. Critical to this change was guiding students in making the shift from a surface approach to learning, to a deep approach to learning where they would engage with the subject matter in a manner more likely to result in truly understanding the concepts and principles being taught. An important part of implementing these changes was asking our students to evaluate the innovations after they had taken place.

Feedback received from our students resulted in the use of a new and unplanned innovation in the form of the setting of regular mini-tests. This was arguably the most successful of all the interventions introduced during the year and resulted in our journey being more exciting and less predictable than expected.

Key words: accounting, assessment, reflexive teaching, evaluation, surface and deep approaches to learning, peer assessment, mini-test.
INTRODUCTION

This paper is based on an assignment submitted as part of the requirements for the Assessment module of the Post Graduate Diploma in Higher Education at Rhodes University.

Assessment practices in context in higher education

“Higher education is about complex learning” Knight (2001b:369) while complex learning is about integrating “knowledge, skills and attitudes… and the transfer of what is learned to daily life or work settings” (Merrienboër, et al 2003:1). The process of complex learning is necessarily dependent on the effective assessment of that learning through formative assessment which guides learning processes, and summative assessment which determines whether a student has achieved the required level of achievement. The evaluation of the teaching and learning activities (TLAs) which form part of the process of complex learning provides essential feedback for the reflective teacher and is used to guide and inform planning for the next cycle of teaching.

Formative feedback allows a student the opportunity for complex learning through reflection on an assignment submitted, resulting in a review of the assignment and an improvement in a subsequent submission, or the opportunity to defend an opinion. Summative assessment results in ‘feedout’, in the form of a certificate or a pass mark. Summative assessment is ‘high-stakes’ assessment, where success in a particular course or module is dependent on a student’s performance in an examination or test situation. For teachers the evaluations received from students provide part of the formative feedback on the TLAs for their course or module. Teachers too should be prepared to reflect on and make changes to TLAs, or if relevant, to defend a particular activity or approach.
While the content of a specific course may not have changed in decades, the approach of the students we teach – particularly at the undergraduate level - their preparedness for tertiary studies and their motivation for studying are changing rapidly (Tilling and Tilt, 2004).

In planning the TLAs for our courses, it is critical that we are aware of the importance of assessment in driving our students’ learning activities. It is also essential that we ask for and are prepared to act on feedback received from students to ensure that the teaching and learning opportunities which we offer are those most likely to result in the complex learning which will lead to the planned learning outcomes. Gibbs (1999:41) tells us that “[a]ssessment is the most powerful lever teachers have to influence the way students respond to courses and behave as learners”. While Ramsden (1992:187) suggests “[f]rom our students’ point of view, the assessment always defines the actual curriculum”. The value of assessment lies not only in it being used to determine a pass or a fail in a certain course, but also in the way it influences our students’ learning activities. Assessment should be used with deliberate intent to focus students’ attention on key areas within our teaching and learning practices.

These were some of the influential statements which became the driving force behind the improvements to the TLAs for the Accounting 1 course which were planned for 2007. While feedback received from students, through course evaluations, resulted in additional improvements to our TLAs beyond those which had been planned.

**Curriculum and context which shaped the initial assessment innovation**

The Accounting 1 curriculum had not undergone any significant revision over an extended period of time, while the composition of our student body had become increasingly diverse,
with the accompanying differences in student preparedness to undertake accounting studies at university. With our TLAs and planned assessment tasks remaining unchanged, serious tensions existed in this course between redress, and efficiency of the teaching practices utilised (Boughey, 2004).

According to Bellis (1999) curriculum has to do with identifying:

- your students (their needs, skills and abilities);
- the content to be taught (the syllabus);
- the desired outcomes (what students should be able to do to prove competency on completion of the course);
- TLAs which will help achieve the planned outcomes;
- how the outcomes will be assessed and finally;
- how the curriculum (in its entirety) will be evaluated.

**Our students**

Demographics within the class are varied, except in terms of age with only 1.1% of our students being older than 23 (2.2%)\(^1\). 10% (11.7%) of our students require University-administered financial aid to allow them to be at university\(^2\), 7% (6.5%) of our students are repeating the Accounting 1 course, 51.4% (43.5%) of our students are Black, 42% (46.3%) are White, 3.8% (3.2%) are Coloured and 2.7% (6.8%) are Asian. Of the Black students, 16.2% (21.4%) are receiving financial aid and 35% (34%) attended schools which could be termed ‘disadvantaged’\(^3\). While the gender split is fairly even, 56% (60%) of our black

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\(^1\) 2007 figures are provided with 2006 figures in brackets

\(^2\) There will be some students who have been awarded full bursaries or scholarships and who would not require the University-administered student funding, but who would not have been able to attend university without their sponsor’s funding.

\(^3\) Differentiating between schools is complicated and there is no existing basis at Rhodes on which these can be examined. What the writer has done is to take both former “Model-C” schools and private schools within South
students are female, while 36% (33.7%) of our White students are female, only 2.6% (3.2%) of our White students are receiving financial aid, while the few who attended schools which were classified as ‘disadvantaged’ were attending ‘finishing schools’ or schools not listed amongst the university’s list of known schools.

Of the students who registered for Accounting 1 in 2007 about 5% do not have Mathematics as a matriculation subject, while some 45% did not take Accounting as a matriculation subject. Some students have no interest in continuing into Accounting 2, but need an Accounting 1 credit as it is prescribed as a first year credit for their commerce degree\(^4\), while some students take Accounting 1 as a first year credit as they feel it would add value to their Science or Humanities degree.

As a result of this, in a class of 450 students, one encounters a huge variation in ability, expectations, attitudes and motivation, while to succeed and to truly benefit from the course requires from the student a significant amount of “time on task” (Chickering and Gamson 1987 as quoted in Gibbs 1999:44) spread evenly over the duration of the course (Biggs, 1999).

**The course content**

There is little freedom in deciding on course content for Accounting 1. As this is the first step towards for the Post-graduate Diploma in Accounting (Honours) year, and ultimately the

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\(^4\) At Rhodes University Accounting 1 is prescribed for the Bachelor of Commerce, Bachelor of Business Science and Bachelor of Economics degrees.
South African Institute of Chartered Accountants (SAICA) Board examinations, we need to ensure that we provide a satisfactory general introduction to accounting principles at NQF Level 5 so that those students who proceed into Accounting 2 are equipped with the necessary knowledge and skills for this second year. Within this context the course content and the TLAs are as laid down by the textbook and tutorial bank used.

**The course outcomes**

There are overall course outcomes, as well as outcomes for each chapter. These would be articulated at the beginning of each chapter and examinations and tests would be set based on these outcomes.

**Teaching and learning activities**

Teaching consists of three forty five minute lectures every week; due to class size each lecture is repeated. Most teaching is transmission based, using slides for teaching theory and overheads for going through examples. A compulsory ninety minute tutorial is held every week and students use this time to go through assignments and examples and to ask questions of their tutors who are generally third or fourth year students. There are usually between twenty and twenty five students per tutorial group.

**Evaluation**

To ensure that what we think we are achieving concurs with what the students believe we are achieving, student evaluations in the form of questionnaires are undertaken regularly, generally on a termly basis. Students are usually asked to rank their answers to the questions posed, from strongly agree to strongly disagree. During 2007 evaluations were conducted after each intervention and although ranked answers were sometimes used, the most common
A source of feedback was through non-directed, open-ended questions where qualitative feedback was sought.

**Reflective Teaching**

Prior to presenting any course, a committed teacher is likely to spend many hours planning the curriculum for a course. This will include setting the course outlines and planning the content, together with appropriate TLAs, according to the context in which the course is to be delivered. Some of these activities can be decided with student input, but this is often done by the teacher in advance of presenting the course. To ensure that the course is meeting the planned outcomes, it is essential that feedback from students, tutors, colleagues and
professional bodies is actively sought. The teacher should reflect on this feedback and identify suggestions which could add value to the curriculum, while identifying areas of strength and weaker areas which need revision and improvement.

ACCOUNTING 1 TEACHING AND LEARNING PRACTICES PRIOR TO 2007

To succeed in accounting requires practical application of the accounting principles learnt to ensure that they are thoroughly understood and that they can be applied in changing circumstances and scenarios. This means that students need to work through the exercises given in lectures and to complete the assignments set for tutorials to acquire and internalize these principles and the practical application thereof.

Brown (2001:4) asserts that “[a]ssessment defines what students regard as important.” Prior to 2007, the Accounting 1 students’ semester marks were obtained purely from the test which was written once a term counting 7.5% (two were written per semester) and the examination which was written at the end of the semester counting 85%.

The minimal 7.5% weighting placed on each of the tests meant that the students did not see this form of assessment as important. They were interpreting the low mark allocations for the tests as an understanding that this part of their learning activities did not hold much value. As a result of this they did not allocate much time for preparation for tests and did not see the mark they obtained or the feedback they received as having much importance. Additionally a student could achieve, for example, 5% in a test and still be allowed to write the examination. There was no incentive to prepare for or perform well in the tests.
As the tutorial work and assignments did not count towards their final marks, students did not see these as valuable learning activities and very little attention was paid to these tasks and they were submitted with a minimum of thought and effort. These activities with the vast potential they had for providing opportunities for a deep approach to learning, were seen by many students and tutors as a waste of time. While studying should have been taking place continuously throughout the term and the year, for some students the only work taking place was a short-term, surface approach to learning, in a stressed environment, for the high-stakes summative assessment of the final examination.

Biggs (1999:57-58) explains the difference between surface and deep approaches to learning, when he says that students who show a ‘deep’ approach to learning, have “clear academic and career plans”, come to lectures prepared and with questions needing answers – according to Biggs these students “virtually teach themselves”. Students with a ‘surface’ approach to learning are simply there to “obtain a qualification for a job” and hear the lecturer’s words as “just another brick to be recorded” and who believe that if they record sufficient ‘bricks’ this will be enough to assist them in the exam process.

A surface approach to learning will not provide a student with the tools for success in accounting. It is only through a deep or complex approach to learning; preparation for lectures and tutorials and through paying attention to and preparing thoroughly for tests, that students are able to take the accounting principles learned and apply these successfully to the varied and changing scenarios provided in tests and examinations. We needed to change our students’ approach to learning and according to Brown, Bull & Pendlebury, as quoted in
Wilson, (2002), “[i]f you want to change student learning, then change the method of assessment”.

**CHANGING OUR TEACHING AND ASSESSMENT PRACTICES TO GUIDE OUR STUDENTS’ LEARNING ACTIVITIES**

**Term 1 - Aligning formative and summative assessment with teaching and learning activities**

Biggs (1999) speaks about there being teacher focussed teaching strategies, (Level 2 teaching) where the focus is on what the teacher does to get the teaching across to the inexpert student, while in student focussed teaching strategies the focus is on what the student does to achieve understanding (Level 3 teaching). Shuell (1986:429) in discussing the required outcomes of students learning - as quoted in Biggs (1999:63) – says, “the teacher’s fundamental task is to get students to engage in learning activities that are likely to result in their achieving those outcomes”.

Knight (2001a) suggests that formative assessment could be more useful to a student than summative assessment, while according to Gibbs (1999:47) the main functions of formative assessment are:

- capturing student time and attention;
- generating appropriate learning activity;
- providing timely feedback which students pay attention to and
- helping students internalise the discipline’s standards and notions of quality.
In Accounting 1 we were not fulfilling any of the functions of formative assessment and this “extremely powerful contributor to student learning” (Knight, 2001a:8) was not being managed in any effective way. Our teaching was focussed on just that, teaching. Learning activities and assessment tasks were seldom enforced and while the teachers were working hard, our students were not being required to participate. For the sake of our students, things had to change.

Using set assignment tasks effectively – one of our most important learning activities – and providing timely feedback

The change introduced during the first term was that assignments were to be handed to tutors who would mark their tutlings’ assignments and return them to the students within two days. Gibbs (1999:46) tells us that the “quality of feedback may… be less important than its frequency and timing”. Tutors would check that the required work had been completed satisfactorily and would provide feedback to the student on how they could improve their performance.

Feedback had not previously been provided on assignments; the assignments had simply been placed in a pigeonhole, the student was noted as having submitted the assignment and the assignment, together with a solution, was returned to the student.

Effective feedback is the core of formative assessment. Formative assessment is used as a tool to guide a student’s learning process, to “identify what learners need to do in order to improve their work” (Knight, 2001a:7). For feedback to be effective it should challenge students, through questions and comments, to re-think their work according to the criteria

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5 A “tutling” is a member of a tutorial group, sometimes known as a ‘tuttee’.
provided. This process encourages the deep and complex learning which “distinguishes university study from school study” (Knight, 2001b:369). Feedback should also be prompt (while the work is fresh in the student’s mind), constructive and specific (using non-judgemental comments or questions addressing areas of improvement which the student can do something about).

With this small change in our TLAs we would be starting to move towards capturing student time and attention, as well as generating appropriate learning activities and providing timely feedback. We were moving from Level 2 teaching to Level 3 teaching, shifting our focus from what the teacher does, to what the student does.

**Term 1 Evaluations**

**Students**

Students were asked to complete an evaluation form towards the end of the first term and within a week of the students completing their evaluations, the writer would have gone through each form. Even though the evaluations would not yet have been captured and statistics would not have been available on the responses, the students could be provided with feedback on:

- what they had said;
- what it was that we could address;
- what couldn’t be changed and why and finally;
- what could be changed, but not within the current academic year.

In evaluations completed at the end of the first term, students seemed happy with teaching and administration quality overall, but reservations about the textbook which we were using
were noted and students additionally asked for extra lessons, or Academic Development Programme (ADP) classes. The students’ concern with the workload is also reflected in the responses that:

- the workload was too heavy (50%);
- lectures were moving too fast (44%);
- there was not enough contact time (35%).

However, with 55% of our students having studied accounting up to matriculation level at school, we also had to deal with responses of:

- teaching contact time being ‘about right’ (59%);
- the workload being ‘about right’ (45%).

The first term of teaching Accounting 101 is always a complicated balancing act as lecturers try to meet the academic needs of students who have never before studied accounting, while trying to maintain the interest of those students who may have achieved excellent marks in their matriculation accounting examinations.

**Tutors**

In evaluations completed by our tutors, 67% said they felt that students had benefited from the handing in of assignments and obtaining feedback on their work, although 20% noted that there was still a problem with students not collecting their folders, and not receiving the feedback given, while 40% said they felt the new system had been received negatively by their students – as the students were now being ‘forced’ to complete the planned learning activities (this was of course seen by the writer as a positive outcome) while another 40% said that the additional marking workload was time-consuming.
**Reflection**

Our students’ and tutors’ comments and concerns were noted and a summary of their feedback was provided to them. Comments about the quality of the textbook which we used, and the request for ADP classes, were of great concern as these areas had not been seen as being problematic. In response to the request for ADP classes it was agreed that a ‘revision clinic’ would be held prior to tests in the first semester to provide students with an additional opportunity for revision and consultation. The criticism of our textbook meant that the writer became highly sensitised to possible shortcomings in the textbook and in due course aware of the reality of these concerns.

**Term 2 - Introducing Peer-Assessment**

While we were now providing our students with timely feedback, were our students paying attention to this feedback? Secondly, had they internalised the discipline’s “standards and notions of quality” (Gibbs, 1999:47)?

From assignments and test answers it was apparent that some students still had no idea what was expected from them in terms of format and presentation and where marks were allocated. Students clearly needed assistance in this area and it was felt that the innovation planned for implementation in the second term of 2007 should be that students would be required to peer-assess assignments.

Race (2001:21) informs us that the “real reason for involving students in their own assessment should be to deepen students’ learning”, this would be moving towards the complex learning which is required of students in higher education. The introduction of peer-
assessment was important because “students pay attention to feedback which has a social dimension” (Gibbs, 1999:46). Feedback provided confidentially by a lecturer sometimes has less impact than feedback provided by a peer.

According to Brown, Rust and Gibbs (1994:23), in peer-assessment “[s]tudents benefit from:

- seeing the preferred solution, with the weighting of an examination marking scheme explained;
- seeing the variety of approaches taken by their peers;
- increased practice at working on problems and the associated feedback.”

However, according to Snowball and Sayigh (2007) the greatest benefit could possibly be seen to be from “…being the assessor and having to provide feedback.” This is because the act of marking created an “appropriate learning activity” (Gibbs, 1999:46) as the marker needed to know and understand the standards expected. If peer-assessment was introduced successfully, we would be addressing all four functions for formative assessment:

- capturing student time and attention;
- generating appropriate student learning activity;
- providing timely feedback which students pay attention to and
- helping students internalize the discipline’s standards and notions of quality. (Gibbs, 1999:47).

As our tutors were already struggling under the burden of marking assignments and providing feedback to students on their assignments, this would relieve them of some of their duties, but more importantly, the learning experience would be passed to the students.
Using peer-assessment as a tool to

- provide timely, formative feedback to Accounting 1 students;
- requiring the students to be the teacher and
- as a result requiring them to know the discipline’s standards;

should result in a win-win situation for both tutors and students.

Peer-assessment was initially introduced in a very simple manner. Students were required to submit two assignments weekly, one was marked by their tutor, the second assignment would be marked by a peer, during the tutorial session, using a model answer which would be provided.

Evaluation after the introduction of peer-assessment

Students

In open-ended questions posed in questionnaires, students were not immediately clear about the benefits of peer-assessment and the end-of-term course evaluations elicited many spirited responses such as ‘Stop it now!’ ‘Hasn’t helped me! Not a little bit!’ ‘Don’t understand the need for it.’

There is no method by which we can track the context in which these responses were made. It is however probable that for students who were attempting to manage their accounting studies with as little input as possible, the need to have to contemplate the exercise given to them to the extent that they would be able to mark it, required more effort than they were prepared to put into a tutorial. Equally it could be that those students who adopted a deep approach to learning would not see the need to be forced to go through someone else’s work, they would have taken the time to go through their own work, once they had the tutor’s
comments and the model answers. This is supported by Snowball and Sayigh (2007) who suggest that peer-assessment may be most beneficial to ‘mid-range’ students, as students who pay attention to criteria and motivate themselves are less likely to need this type of external motivation.

The result of the responses received to the open-ended question of “comment on your experience of peer assessment as a learning tool”

<table>
<thead>
<tr>
<th>Impact of peer assessment</th>
<th>Ineffective</th>
<th>Beneficial</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>35.67%</td>
<td>20.70%</td>
<td>4.46%</td>
</tr>
</tbody>
</table>

When looking at responses from students saying that they had not benefited from peer-assessment, the following responses should be borne in mind as students who felt that peer-assessment was not benefiting them, were often still benefiting from this learning activity although they may not have been aware of it:

‘I did not see the benefit of peer assessment except that by going through the solutions with the tutor I understood more and I was able to ask questions.’

‘The only positive side is it is inspiration to do well’.

From comments in other evaluations it was clear that using peer-assessment was beneficial:

‘It makes us do the work.’

‘I spent more time on the topic than I would have individually.’

These refer to the functions of “capturing… time and attention” as well as “generating appropriate learning activities” Gibbs (1999:47) as well as spending time on these tasks (Chickering and Gamson, 1987).
The following comments showed that we were meeting our goal of helping students understand the “discipline’s standards and notions of quality” (Gibbs 999:47).

‘Helped me understand exam marking techniques.’

‘It is helpful to know the mark allocations and to find out where the marks go in a test.’

‘It is a good strategy, it showed how examiners mark and also what is expected of us.’

Or as one student put it, simply ‘Peerfect!’[sic].

Finally, some students commented on the distress they felt at receiving negative comments from peer-assessment with one student saying, ‘Some of the comments we receive are really discouraging and wounding.’

In response to an open-ended request for comments on other areas requiring attention, students again asked for a teaching at a slower pace or ADP classes while others again asked for a different textbook. Interestingly, students also asked for more tests to be set.

**Tutors**

In more directed open-ended questions 33% of the tutors said that their tutlings learnt from seeing each other’s mistakes, 60% felt that the students learnt from seeing how marks were allocated while 20% revealed their concern that students could be too generous when marking the work of their friends.

The response to the open-ended question to the tutors for comments on the benefits and problems experienced in the implementation of peer-assessment:
**Benefits and problems experienced on introduction of peer-assessment**

<table>
<thead>
<tr>
<th>Students learn from each other's mistakes</th>
<th>Students learn how marks are allocated</th>
<th>Bias when marking friends' work</th>
</tr>
</thead>
<tbody>
<tr>
<td>33.33%</td>
<td>60.00%</td>
<td>20.00%</td>
</tr>
</tbody>
</table>

**Reflection**

Peer-assessment had been introduced on the assumption that tutors would see, understand and want their tutlings to benefit from this innovation, the advantages of which were so clear to the writer. This was an oversight as the introduction of peer-assessment should first have been workshopped with our tutors, they should have been informed of the purpose and likely benefits thereof and their total commitment to this method of assessment established, before it was introduced to students. The negative feelings of some of the tutors, which only became apparent towards the end of the term, could have impacted negatively on their tutlings. The negative impact on the tutorial groups - possibly as the tutors became a little bored with the process Snowball and Sayigh, (2007) - can be seen in the raw data. As the forms were captured according to tutorial group, the clustering of similar themes and comments in the data suggests that many of the negative comments on aspects of teaching and learning practices could be as a result of these issues not being managed in the tutorial environment. Ballentyne et al as quoted in Snowball and Sayigh (2007) state that “[t]utors need to take responsibility for, feel ownership of, and be prepared to defend the process, regardless of what they might actually feel about it … if staff are not prepared to commit to the process, it is highly unlikely that their students will.” It is important for the success of any tutorial activity that students feel that their tutors support these innovations (Race, 2001).

From the feedback received the writer realised that it would be important in future to workshop specific changes with our tutors, prior to these being introduced, to ensure that the
tutors have an improved understanding of our aim in implementing the innovation. Additionally it is critical that we are certain of our tutors’ complete commitment to these changes. Future tutor training workshops would also include a session on providing effective feedback to students. This feedback should be constructive and specific and where relevant, based on the criteria provided. When peer-assessment is introduced in future, tutors should be in a position to assist their tutlings in providing effective feedback which is beneficial to their peers.

The request from students that additional tests be set was initially seen as a tongue-in-cheek comment, but on further reflection the benefits of setting mini-tests became apparent. Additionally this activity had been successfully implemented in subjects like Theory of Finance as well as English Language and Linguistics.

**Term 3 - Innovations introduced during the second semester 2007**

The first principle of guiding strategic change in assessment is generating enough time on relevant learning activities, (Chickering and Gamson, 1987) and distributing it evenly (Biggs, 1999). This was what we needed to be achieving and this was what directed the changes implemented in the second semester 2007. The way we went about this was through changing the composition of the semester mark and changing the DP\(^6\) requirements for the second semester of Accounting 1.

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\(^6\) At Rhodes University students have to meet minimum course requirements to obtain a Duly Performed Certificate to be permitted to write their examination. This is commonly known as the student having (or losing) a DP.
Changes to Accounting 1 second semester 2007: marks, dp requirements and innovations

The final mark for the second semester would now contain a 5% tutorial mark for each term, the tests (one per term) would now count 10% each, while the end-of-semester examination would be the final 70% of the semester mark.

From July 2007 the semester mark for the Accounting 102/112 modules would consist of:

- Formal Test 1 10%
- Formal Test 2 10%
- Term 3 tutorial mark 5%
- Term 4 tutorial mark 5%
- Examination 70%
- Total 100%

There was a definite shift from the emphasis being on the high-stakes, summative assessment, to more emphasis being placed on the formative assessment processes, tutorials and the formal tests. Whilst it may appear that this is not a significant change with the exam mark decreasing from 85% to 70% of the final mark; from the perspective of the value of formative assessment increasing from 15% to 30% of the final course mark, this component of the final mark will have doubled – this may not be as high as it should be, but regardless, this was significant change indeed.

The DP requirements for Accounting 1 were revised. Students were now required to obtain a minimum of 35% for each of their formal tests in the second semester in order to meet their DP requirements. This means that students would need to pay significant attention to these
tests as a poor performance could result in them not being able to continue their Accounting 1 studies for the year.

As almost half of our students have not taken Accounting at school, it would not be fair to introduce this minimum test mark for the test in the first term. First time Accounting students would be allowed an opportunity to get to grips with the course, however this requirement will in future be in effect from the second term of the year. Research has shown that while having studied accounting as a matriculation subject does impact on a student’s performance in Accounting 101\(^7\), this impact is not likely to be significant during the second semester (Rowlands, 1988.) Essentially, the advantage of having taken accounting at school is minimal after the first semester.

We were showing our students that they needed to be focussing time and attention on the learning activities which were critical to the successful completion of their Accounting 1 year.

*Innovations introduced - discussion based questions: Combining Peer-Assessment, Group work and feedback on work-in-process using Criterion-Referenced Assessment (CRA)*

Almost 30% of the final examinations students write before they qualify as Chartered Accountants – the ‘Board Examinations’ – consist of discussion based questions. This was introduced by SAICA as it was felt that while students were adequately trained to prepare the required Financial Statements, they were not equipped with the language or communication skills required to produce professional reports or other written documentation.

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\(^7\) For an Accounting 1 credit, students take Accounting 101 in the first semester and in the second semester they choose between Accounting 102 (if they want the option of continuing into Accounting 2) or Accounting 112 (if they wish to exit with a non-continuing Accounting 1 credit).
To address this, as well as to encourage group work amongst students taking our course, it was decided to introduce a longer task which would require a couple of weeks’ work from students. This task would require our students to use and hone their language and computer skills, and it would require them to work as a member of a group. All of these are essential skills in an accounting environment, as well as being part of the critical cross-field outcomes for Accounting 1 and the BCom degree at Rhodes University.

During the third term of 2007 Accounting 102 and 112 students were given an assignment which was scheduled to run over three weeks. In this assignment, students were initially required to work on their own developing a scenario for a new business. They were then required to draw up a business plan for this proposed entity. Once this had been done students were to draw up a partnership agreement for their proposed business, based on the business’ specific requirements. This assignment would initially be peer-assessed on an individual basis. Once this initial task had been completed, students would be placed into groups of four or five tutlings and using the work already done and the feedback obtained, a group assignment would be put together for peer-assessment by another group. Groups would be given the opportunity to improve on their submissions based on the peer-assessment received for final submission for marking by a tutor.

At the first tutorial of the third term, students workshopped the criteria provided in the CRA Grid – according to which their assignments would be peer-assessed. These criteria had been previously been workshopped with the tutors. It was important to provide both tutors and students with the opportunity to amend the criteria, to ensure that they took ownership of the final criteria with which they were to assess the assignments. Tutors had been asked to workshop these criteria with their tutorial groups and to revise them if the group felt that they
were not appropriate. Out of twenty two tutorial groups only two groups found it necessary to make adjustments to the criteria.

This was the first opportunity we had had to work with CRA. Due to the nature of the subject, there are few opportunities to use CRA in introductory accounting and this task seemed ideal for this innovation. The use of CRA is highly beneficial in ensuring the validity of assessment. At the outset the outcomes are made explicit for both lecturer and student and what is required for the different levels of attainment (Ramsden, 1992, in Carlson, et al 2000.) This guides the lecturer in deciding on teaching and learning practices required for the topic and it guides the student in identifying the outcomes which are required, ensuring alignment between the outcomes, the TLAs and the assessment of the work. CRA promotes clarity for the student on what is required and how this will be assessed, and it offers an ideal opportunity for using peer assessment as a mechanism for student learning since it provides valuable guidelines for assessing the quality of work (Carlson, et al 2000.)

Experience in working in groups will provide students with skills which will be used beyond the classroom and once they venture into the workplace, the ability to work as part of a team, ‘chairing, organisation, group/interpersonal work and peer tutoring’. This will have provided students with a safe environment within which they can be more creative (Brown, Rust and Gibbs, 1994:25).

This was the first opportunity which we had to utilize CRA, allowing students the opportunity to judge their own performance. Students were able to discuss the criteria on which the assessment of their assignments would be based. This is a valuable aid to improving
academic performance in the short term, but which is again an essential tool in the workplace (Brown, Rust and Gibbs 1994).

*Innovations introduced - mini-tests*

During the third term, the second innovation introduced was the writing of mini-tests during the tutorial period. This innovation was introduced after requests from our students in order to generate appropriate learning activities (Biggs, 1999) and to increase “time on task” (Chickering and Gamson, 1987) as it was felt that students were still only applying themselves fully during a ‘high-stakes’ assessment. Shuell (1986, in Biggs, 1999:63) notes that “[i]t is helpful to remember that what the student does is… more important in determining what is learned than what the teacher does.” To meet these requirements and to ensure that we were meeting the four functions of formative assessment, it was decided that it would be beneficial to schedule mini-tests approximately once a fortnight, depending on what other tutorial work had been planned.

Writing additional tests was something which had been suggested by students in previous evaluations and as peer-assessment was not being conducted weekly we needed another learning activity to keep our students actively involved in tasks during tutorials. To ensure that they paid attention to the formative feedback which they received from these tests – and used this feedback to improve any future work – our students’ tutorial mark for the second semester would be made up of marks received from their weekly assignments, the discussion based question and the mini-tests. We were making it as clear as possible to students that we believed it was important for them to spend time on their tutorial work, and that what they achieved there was critical to their success in Accounting 1.
The introduction of mini-tests and discussion based questions as learning activities was exceptionally successful and the benefits appeared, with few exceptions, to be recognised and welcomed by the students. There was no doubt that formative assessment in Accounting 1 now as a matter of course met the four functions of formative assessment and we were eventually generating “time on task” (Chickering and Gamson, 1987), and distributing it evenly (Biggs, 1999).

**Evaluation of innovations during the third term 2007**

**Students**

In open-ended, directed questions 64% of our students said that they had spent more time on the topic as a result of the discussion based question, while 51% said they felt they had benefited from improved understanding of how questions were asked and how these should be answered. Another 28% said they had benefited from sharing ideas and 8% had benefited from seeing other students’ perspectives, while only 17% felt they had not benefited from the introduction of discussion based questions at all.

<table>
<thead>
<tr>
<th>Discussion-based Questions – Time on Topic</th>
<th>Discussion-based Questions – What benefit did you see in working in this way</th>
</tr>
</thead>
<tbody>
<tr>
<td>More</td>
<td>Less</td>
</tr>
<tr>
<td>64.34%</td>
<td>8.04%</td>
</tr>
</tbody>
</table>

In suggestions for improvements to future discussion based questions, 12% of the students said that they felt three submissions was excessive – a problem which we had already identified - while 15% said they felt the changes had been implemented in a satisfactory manner.

<table>
<thead>
<tr>
<th>Discussion-based Questions - Suggestions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fine as it is</td>
</tr>
<tr>
<td>15.38%</td>
</tr>
</tbody>
</table>
Students on the whole were very positive about their experiences in the tasks involving group work and a discussion based question. Their growing maturity (or perhaps understanding of how valuable their evaluations are?) shows in their responses, a couple of which follow:

“As difficult as it sometimes may be to find time where all group members are not busy, this really is beneficial as a variety of info is shared and debated.”

“Interactional, leadership and conceptual skills are developed simultaneously.”

“It impacts a lot as the more time spent on it, the more you remember it and you learn something new each time.”

“It gave me greater insight into the topic, would not have covered this much, so soon, if I didn’t have to.”

“It gave an in depth understanding of partnerships which tied in with what we are learning in Comm Law.”

Regarding the introduction of mini-tests, 51% of the students said they had been helpful and 43% said they had resulted in improved continuous learning. Bar a few negative comments like ‘40 minutes is not mini’ where the comment is directed at the length of the test rather than the mini-test itself, the responses to our questionnaire were on the whole very positive. These are some of the students’ responses to our request for feedback on the introduction of mini-tests:

“I feel that mini-tests are beneficial as it encourages me to learn more regularly instead of cramming before major tests.”

“It forces us to go over the work in more depth every week and in turn this should prepare us more for tests and exams.”
“I don’t feel it has impacted on my learning activities too much. It has made me more motivated to do my tuts properly though.”

“More effort would be put in b4 tuts because of the tests, they are great!”

“They test my level of understanding, makes me aware of the mistakes I make/would make in a big test or exam and which areas I should improve on.”

“I have benefited greatly from the tests. I believe that they are beneficial to my learning programme of accounting as a whole. My time management has improved!”

The quality of the textbook and ADP classes were again mentioned as being problematic.

_Tutors_

The feedback received from our tutors to open-ended questions set regarding the impact of the discussion based questions on time spent by the students on task was even more definite, 56% said they felt that the discussion based questions had improved their tutlings exam technique; 25% said they felt this had resulted in continuous learning, while 19% said this resulted in improved application of concepts.

<table>
<thead>
<tr>
<th>Discussion-based Questions - Impact on time on task</th>
<th>Benefit</th>
<th>Drawbacks</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Improves exam technique</strong></td>
<td><strong>25.00%</strong></td>
<td><strong>18.75%</strong></td>
<td><strong>12.50%</strong></td>
</tr>
<tr>
<td>Continuous learning</td>
<td><strong>56.25%</strong></td>
<td><strong>43.75%</strong></td>
<td><strong>25.00%</strong></td>
</tr>
<tr>
<td>Application of concept</td>
<td><strong>18.75%</strong></td>
<td><strong>31.25%</strong></td>
<td><strong>12.50%</strong></td>
</tr>
<tr>
<td>Student Negativity</td>
<td><strong>43.75%</strong></td>
<td><strong>31.25%</strong></td>
<td><strong>12.50%</strong></td>
</tr>
<tr>
<td>Tedious and easy</td>
<td><strong>31.25%</strong></td>
<td><strong>12.50%</strong></td>
<td><strong>12.50%</strong></td>
</tr>
<tr>
<td>Time Constraints</td>
<td><strong>12.50%</strong></td>
<td><strong>12.50%</strong></td>
<td><strong>12.50%</strong></td>
</tr>
<tr>
<td><strong>Good</strong></td>
<td><strong>25.00%</strong></td>
<td><strong>12.50%</strong></td>
<td><strong>12.50%</strong></td>
</tr>
<tr>
<td><strong>More time on topic</strong></td>
<td><strong>12.50%</strong></td>
<td><strong>12.50%</strong></td>
<td><strong>12.50%</strong></td>
</tr>
</tbody>
</table>

Regarding the impact of discussion based questions on students’ learning activities, 43% of the tutors said they felt this resulted in improved application of concepts; 43% said this resulted in improved continuous learning, 21% said this resulted in improved team-work, while 7% said this resulted in improved examination technique.
Impact of Discussion-based Questions on students’ learning activities

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Drawbacks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application of concept</td>
<td></td>
</tr>
<tr>
<td>Continuous learning</td>
<td></td>
</tr>
<tr>
<td>Improves teamwork</td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td></td>
</tr>
<tr>
<td>Improves exam technique</td>
<td></td>
</tr>
<tr>
<td>Time constraints</td>
<td></td>
</tr>
<tr>
<td>Student negativity</td>
<td></td>
</tr>
<tr>
<td>42.86%</td>
<td>21.43%</td>
</tr>
<tr>
<td>42.86%</td>
<td>21.43%</td>
</tr>
<tr>
<td>21.43%</td>
<td>7.14%</td>
</tr>
<tr>
<td>21.43%</td>
<td>14.29%</td>
</tr>
</tbody>
</table>

Finally regarding the impact of mini-tests on students’ learning activities, 79% of the tutors said they felt this resulted in improved continuous learning while 50% said it resulted in improved examination technique.

Impact of Mini-Tests on students’ learning experiences

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Drawbacks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous learning</td>
<td></td>
</tr>
<tr>
<td>Improves exam technique</td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td></td>
</tr>
<tr>
<td>Application of concept</td>
<td></td>
</tr>
<tr>
<td>Student negativity</td>
<td></td>
</tr>
<tr>
<td>Student preparedness</td>
<td></td>
</tr>
<tr>
<td>78.57%</td>
<td>50.00%</td>
</tr>
<tr>
<td>14.29%</td>
<td>7.14%</td>
</tr>
<tr>
<td>14.29%</td>
<td>7.14%</td>
</tr>
</tbody>
</table>

**Reflection**

In the evaluations received on this section, we received comments from our students on the difficulties they had experienced in trying to find time to meet as a group, requests for more input from the lecturer on how work should be distributed within a group, and comments from students wanting more direction on the topic. It was explained to the students that part of the learning experience in working in groups was that they are expected to be able to make decisions about how the work should be distributed within a group and who should be appointed group-leader should they decide they require a group-leader. With any similar task in the future, this will be articulated at the outset.

Our aim of the students spending more time on their learning activities, spread evenly across the duration of the course was being realised, (Biggs, 1999; Chickering and Gamson, 1987) even if students did not always see this as a benefit. Additionally some students were articulating the benefit of internalising accounting standards and understanding how questions
would be marked. Students were gaining additional exposure to the pressures of the examination environment, but outside a high-stakes scenario, and on the whole they welcomed this challenge.

It took a fairly long time for our students to understand what was required of them regarding deciding on the criteria for the assessment task, and some students (and entire tutorial groups) engaged with this process more than others, possibly as a direct result of the level of enthusiasm of their tutors. The more involved the students were in the process of debating the criteria the more they would have understood what was required of them in this exercise.

Setting the discussion based assignment to run over three weeks, was too much of an expectation for the type of question set. Before the students had reached the final stage of this assessment, the writer realised that this task had been taken one stage too far. Two submissions should have been the limit, with the tutors assessing the assignments after the second submission. The third submission had resulted in both students and tutors becoming frustrated and bored with the process. From the feedback received however, the benefits of this intervention still outweighed this drawback.

Receiving and reflecting on this round of evaluations was very rewarding although there were still areas of improvement. We would in future not have a discussion-based, peer-assessed assignment run over three weeks, and we would keep mini-tests relatively short. Despite some students not seeing the full benefit of what we were doing, it was apparent that we were achieving our goal of meeting the main functions of formative assessment.
CONCLUSION

Mini-tests had not been part of the changes planned for the Accounting 1 TLAs at the beginning of the year, but were brought about as a direct result of feedback received from students, however, it would be fair to say that this was arguably the easiest and yet the most effective innovation introduced during 2007.

When first suggested in student evaluations, the writer’s initial reaction was that students were not being serious in this request. From personal experience of a student studying English Language and Linguistics the writer was aware that students were often ‘busy learning for a Linguistics test’ (every Linguistics lecture started with a quick test) while it transpired that every Theory of Finance tutorial session started with a mini-test. Our students were being serious; they recognised the value that mini-tests would add to their learning activities, even if their lecturers didn’t yet see that value!

Investigating a new textbook had not been contemplated at the beginning of 2007, yet after so many comments and requests during 2007 it has become a reality in 2008 and to date not one student has criticised the content of our new textbook.

The ADP classes which could not be contemplated at the beginning of 2007 are scheduled to run fortnightly during the second term of 2008. The numerous changes to the course during 2007 meant that it was just not possible to introduce ADP classes as well, but ‘revision clinics’ had been introduced to provide students with some level of support. Should the students indicate that they would like to see ADP classes introduced in the first term of the year, this is something we would consider for 2009. Although students seem to feel the need
for these classes after receiving the results of the first test of the year (towards the end of the first term) so additional classes earlier in the year might not be of much benefit.

Implementing these improvements to the TLAs at first year accounting level, has been a beneficial journey for all participants. For our students this was a journey which started with resistance to the idea of change, moving to tolerating the changes, to finally appreciating and valuing the changes which were implemented. For our tutors, the journey was one of firstly questioning the need for change, this shifted towards being resistant to the additional workload that the changes required, to a realisation of the positive impact that these changes made on their tutlings’ approach to learning. However the tutors’ evaluations must be viewed against a backdrop which remained constant, this backdrop was their appreciation of the value which was being placed on work undertaken by students before and during tutorials and the feeling that the TLAs for introductory accounting were now being taken seriously. As a teacher, the writer’s journey moved from uncertainty and trepidation as the changes to be implemented were planned after researching theoretical scenarios, to cautious excitement once students started sharing the results of the innovations introduced (which showed that we were starting to fulfil the functions of formative assessment), to a sense of a journey shared when students’ suggestions added value to the proposed changes.

Assessment determines which activities within a course are important for our students. It also determines the time and attention which students will devote to these activities. It is important therefore that assessment tasks are planned to generate continuous learning opportunities which are aligned to the course outcomes. Realising these outcomes will only occur as a result of intentional alignment of the planned TLAs and the formative and summative assessment practices.
To improve students’ learning activities, and making use of past research and student suggestions, several innovations were made to the tutorial and assessment aspects of the Accounting 1 course in 2007:

- feedback was provided to students within two days of submission of an assignment
- DP requirements were changed to ensure that students paid attention to tutorial work which forms the basis of their learning practices;
- mini-tests were introduced to ensure that students spent sufficient time revising for accounting and that this time is spread evenly across the course;
- discussion based questions incorporating group work were introduced to ensure that students started learning how to produce professional documentation and how to work in a group, while also ensuring that students spent time on appropriate learning activities and
- compliance with the DP requirements was ensured through improved tutor input.

These innovations have resulted in a shift from Level 2 teaching to Level 3 teaching where the emphasis shifts from what the teacher does to what the student does with a resulting shift from a surface to a deep approach to learning. With a continued awareness in subsequent academic years of using assessment to drive the focus on the student’s learning activities, this should result in significant long-term improvement in our students’ understanding of and approach to studying accounting.

The task of improving the assessment and teaching and learning activities within a course can never be said to be complete. Ideas for innovations are gained from feedback received from students, tutors or colleagues; or from research. In this way the reflective teaching cycle continues.
REFERENCES


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