Understanding Tax: An Evaluation of Online Assessment and Feedback as an aid in improving Postgraduate Student Learning

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Abstract

It is widely accepted that students value timely and targeted feedback on their assessment tasks however this is also the area where they are most critical when it comes to their teaching and learning evaluations. These criticisms can be grouped into three categories. These are first, where feedback is not easily accessible to the student. In other words it is not timely, not legible and not in a format that makes it easily accessible eg they are part-time and not able to access the campus to collect hard copy feedback. Second, the feedback is not targeted to the particular problems that the student has demonstrated. Finally, the feedback is hard for the student to understand. This may be due to poor expression on the part of the marker, difficulty in understanding by the student or a combination of both. In 2006 Nicol and Macfarlane-Dick set out seven principles of good feedback practice in their research arising from their experiences as part of the Centre for Academic Practice, University of Strathclyde, Scotland. These principles are based on a synthesis of the literature on assessment and feedback and provide a good model on which to benchmark feedback practices.

This paper discusses the use of online assessment and feedback used in the School of Taxation and Business Law at the University of New South Wales (UNSW) when teaching taxation law to postgraduate coursework students. It is divided into an introduction and four parts. The introduction provides an overview of the drivers in the higher education sector which have led to the use of online assessment practices. Part I introduces the educational theory that supports the use of assessment and feedback as part of the learning process and the seven principles suggested by Nicol and Macfarlane-Dick. Part II describes four online assessment and feedback tools that are used to teach postgraduate taxation law courses at UNSW. Part III evaluates the use of these tools both from the educational theoretical
perspective and the student perspective. Part IV draws certain conclusions regarding the usefulness of online assessment.

**Introduction**

If we look at assessment issues in the 21st century specifically in the context of higher education we can see that there are a range of influences. The accrediting of student learning remains a key function of higher education however around the world there is a reduction in government funding for higher education which is mirrored in Australia.¹ This is putting pressure on existing staff, both academic and administrative, who are working harder and often longer hours but in environments where budgets are reduced. Infrastructure developments, including technology implementation and updating are also threatened due to these budgetary limitations. There is additional pressure on Australian universities to admit more students as some government caps on student numbers have been reduced² together with an increasingly diverse student body. This diversity results in learning and teaching pressures on academics who are required to interact with students with different English language skills, a range of cultural backgrounds and who may also have different levels of ability. This latter issue is particularly problematic in courses where student numbers have been increased in order to raise additional university funds.

These challenges arise in an environment that requires increasing levels of accountability for academics and university managers by universities and by government.³ It is also coupled with the infiltration of technology into our society, workplace, educational environment and the impact this has on student expectations. Students now come to university with knowledge of technology and expectations that the university environment will be technologically up to date.

¹ See for example Organisation for Economic Co-operation and Development ‘Education at a glance 2013’.


³ Eg Australian Government, Australian Research Council, Excellence in research for Australia (ERA). The website states that ERA ‘aims to identify and promote excellence across the full spectrum of research activity in Australia’s higher education institutions. ERA evaluates the quality of the research undertaken in Australian universities against national and international benchmarks.’
The role of universities as accrediting student learning means that there is an increased focus on the importance and role of assessment of students. The increase in student numbers and the diversity of their backgrounds has also resulted in a greater focus on every aspect of assessment. Good quality assessment must be timely and transparent but it must also be suitable to deal with the ever increasing student numbers and able to cater for a range of student learning needs and capabilities.

The above factors put in context the drivers for the use of electronic assessment and feedback. In the School of Taxation and Business Law (TBL), University of New South Wales (UNSW) there has been the practical advantage to the use of electronic submission of assignments due to the fact that the majority of taxation law courses are taught in flexible delivery mode. Electronic submission is a practical way of handling the lodgement of assignments by students who are studying at a distance to the university. But is it also practical for on campus students, as it ensures that students can lodge their work from wherever it is convenient. This process has been available to TBL students for several years. However the ability to return assignments electronically has only recently been developed. This feature has the advantages that students artefacts are returned safely ie not lost in the mail, are actually returned to the student in that academics are not left with unclaimed assignments at the end of semester and are returned to the correct student as opposed to students incorrectly claiming another student’s work.

Good assessment practices also require academic integrity in the process as the academic should be accountable for their feedback and for the grade awarded. Furthermore they should accurately record this grade for accountability and accrediting purposes. Electronic assessment has the advantage of recording the academic’s input into the assessment process and the mark awarded.

A significant driver in the assessment environment at TBL was therefore the importance of an efficient grade recording system for staff, both academic and administrative whilst at the same time maintaining high quality feedback. Electronic assessment was viewed as having the potential to improve readability of feedback (as long as the academic can type accurately) and also the value of and quality of feedback to students.

This paper discusses the use of online assessment and feedback used in TBL when teaching taxation law to postgraduate coursework students. Part I introduces the educational theory
that supports the use of assessment and feedback as part of the learning process and highlights the seven principles of good assessment suggested by Nicol and Macfarlane-Dick. Part II describes the four major online assessment and feedback tools that are used to teach postgraduate taxation law courses at UNSW. Part III evaluates the use of these tools. This evaluation is focussed on the educational theoretical perspective however academic and student views are also canvassed. Part IV pulls together the themes that have arisen from this evaluation and draws certain conclusions regarding the future and effectiveness of online assessment.

Part I

The Role of Assessment in Learning

When academics and teachers think of assessment we often think of a range of activities including testing, rating of performances, observation and feedback. However when we think more deeply about assessment we argue that assessment is an ongoing process. It involves a lot of input by the academic that includes planning, discussion, consensus building, reflection, measuring, analysing and improving. These activities revolve around a learning objective and the data gathered from and about this objective. However as part of the process of assessment it is important to remember that not only is assessment about measuring and testing student learning but is also one of the key ways that students learn. To put it another way, ‘the methods we use to assess students are one of the most crucial of all influences on their learning’.

Although we will always have to grade students in some way so that their progress in a certain area of learning can be summarised and articulated to the student, to the university and to external stakeholders assessment is more than this summary of results. Assessment can be viewed as a way of teaching more effectively through helping the teacher and the student to understand what they know and what they don’t know. So assessment has two major

4 Donald Orlich, Robert Harder, Richard Callahan and Harry Gibson, Teaching strategies: A guide to better instruction (Houghton Mifflin, New York, 2004).

5 K Martell and T Calderon, ‘Assessment of student learning in business schools: What is it, where we are, and where we need to go next’ in K Martell and T Calderon, Assessment of Student learning in business schools: Best practices each step of the way (Association for Institutional Research, Tallahassee, Florida, 2005) 1.

functions. It is about reporting on students’ achievements and also about teaching them better through expressing to them more clearly the learning goals of the curricula with which they are engaged.\(^7\) This latter aspect will in turn aid the student in improving the quality of their learning.

There are several important functions or aspects of assessment. Assessment impacts on the affective processes of increased effort and motivation of learners. It also influences student cognitive processes of restructuring knowledge. A further significant role of assessment is that learners (particularly those studying at a distance) require reassurance that they are heading in the right direction and assessment coupled with quality feedback provides this guidance. Furthermore, constructive feedback often results in improved student performance.\(^8\)

According to Nicol and Macfarlane-Dick formative assessment and feedback should be used to empower students to become self-regulated learners.\(^9\) When they refer to formative assessment they mean assessment that is specifically intended to generate feedback on performance to improve and accelerate learning.\(^10\) Their reference to self-regulated learners refers to the degree that students can regulate aspects of their thinking, motivation and behaviour during learning.\(^11\) The capacity to be self-regulated learners will, they argue, improve student learning. Nicol and Macfarlane-Dick consider that students generate internal feedback as they monitor their engagement with learning activities and tasks and assess their progress towards their learning goals. They argue that those students who are more effective at self-regulation generate better quality internal feedback when they complete an assessment task or are more able to use the feedback they generate to achieve their desired goals. Self-

\(^7\) Paul Ramsden, *Learning to Teach in Higher Education* (Routledge, 1992) 182.


\(^10\) Ibid.

\(^11\) Ibid.
regulated learners also actively interpret external feedback that they receive from teachers and other students in relation to their internal goals.\textsuperscript{12}

The Seven Principles of good feedback practice (by teachers to learners on their work) as determined by Nicol and Macfarlane-Dick are:

- helps clarify what good performance is (goals, criteria, expected standards);
- facilitates the development of self-assessment (reflection) in learning;
- delivers high quality information to students about their learning;
- encourages teacher and peer dialogue around learning;
- encourages positive motivational beliefs and self-esteem;
- provides opportunities to close the gap between current and desired performance; and
- provides information to teachers that can be used to help shape the teaching.\textsuperscript{13}

\textbf{Part II}

\textbf{The online teaching, assessment and feedback tools used to teach postgraduate taxation law courses at UNSW}

Academics who teach postgraduate taxation law courses at UNSW predominantly use the Blackboard software learning platform. This platform allows academics to use a variety of online teaching and assessment practices. This paper will confine itself to a discussion of the four major learning practices that the author has engaged with over the last five years as a full-time academic within TBL. First, every course has a Blackboard website developed that provides a shell for the input of materials and information such as course notes, PowerPoint teaching slides, links to relevant WebPages, the Webinar functions and discussion forums.

\textsuperscript{12} Ibid 200.

\textsuperscript{13} Ibid.
Blackboard online Webpage for each course

Each assessment task in a postgraduate course at TBL is published in the course materials. Until semester 1, 2013 these materials had been printed and a copy forwarded to each student by mail. The electronic version of the materials was also uploaded to the Blackboard website. From semester 2 the course materials are only available electronically via the Blackboard course site. This decision was due mainly to budgetary constraints.

The course notes not only provide all details of each assessment task including the assessment question or problem and due date but also the assessment criteria and the link to the course objectives of each aspect of the assessment. Complete assessment details are provided at the beginning of each semester. This early advice and clear description of each assessment task and the criteria for each task helps learners clarify what good performance is. In addition, many academics post on the Website examples of good work either prepared by them or from a good past student submission. For example, in the course ‘Taxation of Trusts’ a prepared example of one assessment task (in a different course) and a good student example taken, with the student’s permission, from another course are uploaded onto the site to provide exemplars to students.

Below is a typical Blackboard course Home Page.
Down the left hand side of the screen are all the function keys that open into the different spaces and enable students to access learning materials, their grades, the webinar forums and assignment lodgement. Each course has certain standard documentation icons such as links to UNSW plagiarism information and notes on research and writing together with links to webinars and discussion forums if the academic chooses to use these capabilities.

**Webinars**

Many taxation courses now use the Webinar function of Blackboard in order to teach students. Commencing 2013 in a standard postgraduate course six Webinars are timetabled at regular intervals throughout each semester. Each Webinar is of one and a half hours duration. The Webinar function enables the academic to upload Powerpoint slides or other materials onto the screen so that students can see this information whilst the teacher speaks. Students can interact with the academic and other students either verbally by using the microphone, by typing into the chat box which appears on the screen or by using the icon keys such as smiley faces, green or red hands and so on. Even though students’ are not in a face to face environment there is still the ability for them to interact with the teacher and also with each other. They can all hear the academic and any student who speaks and also see what each
student types. In this way they interact dynamically with the other students as they can reply via the chat box even while the academic or another student is speaking. The comments in the chat box can also be downloaded and printed thus enabling the teacher to revise the students learning during the class and answer any questions subsequently. Students login into the Webinar and therefore a record of their attendance is maintained. This can assist the academic to follow student progress (or lack thereof) and enables them to answer student questions individually and privately where appropriate.

**Electronic lodgement of assignments through Turnitin**

The third form of electronic assessment is that all students are required to lodge their written assignments via the Turnitin function of the Blackboard site. They are able to reload their assignment into the Turnitin platform as many times as they wish prior to the due date of the assignment. Each time the assignment is lodged the student can see a report which advises them of the similarity between their assignment and other web based materials. The aim of Turnitin plagiarism detection is to promote student understanding of how to write without unintentional plagiarism. As already mentioned students are free to submit and resubmit to Turnitin. This resubmission process also encourages better writing as by submitting drafts students are revising and rewriting which assists them to learn academic writing. The plagiarism function is also important because norms of referencing vary internationally so it assists students to understand the Australian university standards.

Below is a standard electronic assignment submission page that incorporates Turnitin.
Grademark as a marking and feedback tool

The final online tool that this paper discusses is the use of ‘Grademark’ which is part of the Turnitin software package. Once a student’s assignment has been electronically lodged the academic can open it in Grademark. The academic views the Turnitin plagiarism report and also sees the percentage of similarity between the assignment and any other internet material. The academic can see whether the similarities are merely due to appropriate quoting and referencing or whether there is a plagiarism issue. Once this is checked the teacher can undertake marking of the assignment online. The Grademark function allows for comments to be typed onto the screen which appear as a speech bubble to the student and then opens up into the typed comments. These comments can be accurately placed on the assignment wherever the teacher considers relevant. Comments can be customised to suit the individual student issue or saved as general comments (Quickmark) so that they can be used repeatedly. The Quickmark function in Grademark enables the academic to save commonly used comments and quotations so that marking is quicker and more efficient, and most importantly, of better quality. There is also the ability to incorporate marking schemes or rubrics. Below is a copy of the Grademark webpage outlining its functions.
Part III

An evaluation of the online teaching and assessment tools through the lens of the seven principles of good feedback practice

Each of the four online teaching and assessment tools used at TBL will be evaluated using the seven principles suggested by Nicol and Macfarlane-Dick.

1. Clarification of Good Performance

Good performance in an assessment task is usually easy to identify however it is not always easy to define. The educational literature provides a number of suggestions for how to make good performance clear to students prior to their engaging with the assessment task in order to hopefully, improve the assessment outcome. These include use of assessment rubrics,14

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clear criteria, and providing examples of good performance. But once the assessment task has been completed it is important for students to understand how they might have fallen short of the ultimate goal of good performance. Comments such as ‘poor effort’ and ‘could do better’ are examples of unclear feedback that do not offer anything substantive and do not assist students in understanding where they went wrong. Vague feedback can lead to students having no true understanding of their limitations and how they can improve. This can result in the student being unable to apply their learning to their next assessment task. Another frequent complaint is that ‘handwritten feedback is illegible, rendering it almost useless’.

The Blackboard online webpage allows the academic or instructional designer to place on the site any relevant information that may assist in clarifying good performance. This includes assessment criteria, rubrics, good student examples and model answers. The advantage of an online site is that it is accessible to students from any location, can be referred to regularly, is not easily lost like printed out information provided to students in class and all students can access it. This last point is important as some students are not able to attend on campus classes and the provision of all relevant information via an online site overcomes their inability to access information in a timely manner.

Grademark also has the capacity to provide students with relevant information that should improve their performance. Marking schemes or rubrics are easily incorporated into the Grademark system. Of additional importance is that detailed and sophisticated comments can be provided through the use of Quickmarks and that these and individual comments are, unlike handwriting, always legible. As one student commented on the use of Grademark ‘Quick...constructive...you actually had helpful comments and I could actually read them’.

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19 Student comments ‘Principles of Australian Taxation Law’ Webinar semester 1, 2013.
2. Facilitates the development of self-assessment (reflection) in learning

In 2005 Martell and Calderon highlighted that effective assessment involves a process. This process includes not only the assessment task but also identifying improvement opportunities and reflecting and making changes.\textsuperscript{20} The assessment process is often represented as a continuous cyclical process, or rather, a loop. ‘Closing the loop’ is a phrase that is regularly used and which has been defined by Martell and Calderon as an ongoing process that uses assessment data to improve student outcomes.\textsuperscript{21} This data is not just for the academics and university administrators, the reflection process as part of the cycle of assessment can enhance student learning and lead to better assessment outcomes in the future. Students consider ‘that feedback needs to be an integral part of the learning experience not just a one-off exercise that assesses the student’.\textsuperscript{22} In this way students are encouraged to reflect and develop in order to improve their academic achievements.\textsuperscript{23}

Electronic feedback may encourage student reflection in a number of ways. The most obvious is the use of the originality check in Grademark. Students are able to lodge draft assignments as many times as they wish prior to the submission date and time. When they do this they see a detailed originality report. This identifies to them any similarities between their own work and other sources that are available electronically. The sources include everything that is available electronically on the university site, the World Wide Web and also the students own work or that of other students. This provides them with the opportunity to ensure that sources are properly referenced and quotes are identified. It also provides them with encouragement to go back, revise their paper and resubmit in cases where there is a significant degree of overlap with other work. If students take advantage of this capability then they are engaging in one form of self-assessment and making changes for the better. They are also reflecting on

\textsuperscript{20} K Martell and T Calderon, ‘Assessment of student learning in business schools: What is it, where we are, and where we need to go next’ in K Martell and T Calderon Assessment of Student learning in business schools: Best practices each step of the way (2005, Association for Institutional Research, Tallahassee, Florida) 1.

\textsuperscript{21} Ibid.

\textsuperscript{22} National Union of Students, United Kingdom, ‘The Great NUS Feedback Amnesty’ (2008) 13.

and revising the drafts of their assignments. Preparing, revising and resubmitting drafts are an important way of improving academic writing.\textsuperscript{24}

The use of structured assignment as part of electronic lodgement and feedback is another way that reflection is encouraged. It is common in the author’s school to require postgraduate students to lodge a plan of their research paper prior to the final paper. Customised comments and Quickmarks available on Grademark ensure that marking this assessment item is fast and the feedback informative and legible. Students are then in a position to reflect on timely and helpful feedback and incorporate it into their final paper.

3. **Delivers high quality information to students about their learning**

Good quality external feedback is information that assists students identify problems in their own performance and self-correct.\textsuperscript{25} Lunsford argues that feedback that is effective this way shows how the reader perceived the argument rather than providing a judgement.\textsuperscript{26} As stated earlier in this article customised comments and Quickmarks available on Grademark enable the teacher to provide clear and detailed information to students about their assessment performance. These comments can be drafted in a way that is considered the most appropriate and helpful by the teacher. Quickmarks allow the academic to develop a bank of standard responses to commonly arising problems eg lack of appropriate headings, omission of an abstract or bibliography when required, incorrect citation of sources and problems with grammar. Other comments can be customised so that they are relevant and personal to that student and their own work. Placing the comment over the place where the student has written also means that the comments are focused. As one student commented ‘it was good you could put comments in the spot it related to’.\textsuperscript{27} This can also benefit the academic. A colleague recently pointed out ‘thanks for singing the praises of electronic marking – have


\textsuperscript{26} R Lunsford, ‘When less is more; principles for responding in the disciplines’ in M Sorcinelli and P Elbow (eds) Writing to learn: strategies for assigning and responding to writing across the disciplines (Jossey-Bass, San Francisco, CA, 1997).

\textsuperscript{27} Student comments ‘Principles of Australian Taxation Law’ Webinar semester 1, 2013.
just started and it is so much easier. Not just logistically, but conceptually – by now, my brain is more wired to think better when I type.²⁸

4. **Encourages teacher and peer dialogue around learning**

Feedback is often given at the end of an assessment task to simply record a student’s achievement. This approach doesn’t always provide developmental advice which will allow a student to progress.²⁹ Dialogue about learning can be encouraged through teacher and student interactions both face to face and electronically. In the electronic environment Webinars can be used effectively to encourage engagement with the assessment task whilst it is underway and to discuss the quality of student performance at a general level. Webinars are not limited to the delivery of teaching materials and discussion can be facilitated through the chat room function where students type in their comments and everyone can see them. This also facilitates conversations between students. Furthermore, general comments and feedback on assessment tasks can be posted by the academic on the Blackboard site.

The Blackboard site also enables teacher student dialogue through email and discussion forums. The author uses regular email to, for example, remind students of the upcoming Webinars, notify them of recently posted materials on the Blackboard site and to make comments about assessment tasks.

5. **Encourages positive motivational beliefs and self-esteem**

Criticism when poorly expressed or delivered can damage students’ self-confidence and lead to a lack of motivation. An important benefit of online feedback is that it can be viewed by the student wherever and whenever they choose. This provides them with privacy thus preventing comparisons and negative comments from other students which can damage self-esteem. In addition, customised feedback comments can be crafted so that they send the appropriate message mixing criticism with encouragement by the teacher. Quickmark comments can be designed by academics to encourage students in a way that is appropriate for the discipline and student cohort. The Quickmark function means that the teacher has time to draft and revise the comments to ensure that they are expressed tactfully as well as being helpful.

²⁸ Email from colleague dated 6 September 2013.

6. Provides opportunities to close the gap between current and desired performance

Online technologies such as those described in this paper can be used to provide students with the opportunity to close the gap between their performance in the assessment task and their goal just as traditional assessment can. These technologies however also have the additional benefits described earlier in this article such as timely, legible and targeted feedback which enables students to reflect on their performance and improve for the next assessment task.

The capacity of academics to use online technology to provide feedback in a timely manner ensures that students have the opportunity to quickly rectify their drawbacks and omissions and apply their new knowledge to the next task whilst the feedback is still at the forefront of their minds. The ability to access this feedback where the students are located also means that they are not waiting for the next class to obtain important information.

External feedback should however support two processes. It should help students to recognise the next steps in learning and how to take them. The electronic submission of research plans described earlier is one way of providing feedback on work-in-progress thus encouraging students to plan various strategies that they might use to improve their final research paper. Furthermore, if students use the originality report offered through Grademark this will provide them with feedback on their level of originality and correct use of references prior to submission.

7. Provides information to teachers that can be used to help shape the teaching

Feedback is not only about providing relevant information to students it is also about improving the quality of teaching. As one researcher points out ‘[t]he act of assessing has an effect on the assessor as well as the student. Assessors learn about the extent to which they [students] have developed expertise and can tailor their teaching accordingly.’


A range of reports can be generated by online technologies that enable teachers to track student activities and performance. The originality check discussed earlier clearly shows the academic which sources have been commonly used by students and how they have been used. This is important when setting research papers and other high level essay assignments as it assists the teacher to identify important references that students are accessing and also highlights to them if students are overlooking other important reference materials.

The Blackboard site can generate reports that identify not only the students who actually participate in Webinars but also those that download and play these classes subsequently. In this way the academic can track which students and the number that are engaged in the classroom activities. This can ultimately be compared to student performance to enable review of teaching and assessment activities to ensure that they are meeting the students’ educational needs. Other reports can be generated that track how many and how often students access other material on the site such as notes and reference materials. This assists academics in managing their uploading of materials and deciding which materials are perceived as most worthwhile by the students.

**Part IV**

**Conclusion**

This paper has described how four different online strategies are used in teaching postgraduate students taxation law. It has analysed these strategies through the lens of the seven principles of good assessment identified by Nicol and Macfarlane-Dick. Although it is not suggested that online teaching and assessment will cure all assessment defects this article has demonstrated that the strategies described can be used effectively to provide high quality feedback.

Furthermore, it has shown that there are certain unique advantages to the use of online assessment over more traditional formats. These advantages include the timeliness of online feedback, its legibility and that this type of feedback can be accessed when and where the student chooses. This means that not only are the students able to view and interact with their feedback quickly but that it is certain to reach them and they are able to view it privately without fear of comparison and criticism from their peers.
Of the seven principles of good assessment discussed in this article encouraging the student to reflect on their feedback and use this new knowledge in the next stage of their learning has been highlighted as one of the most important aspects of effective assessment. This is possible through online assessment. The article has provided two examples of how this can be encouraged. First, electronic submission of research plans prior to the final research paper is one way of providing feedback on work-in-progress thus encouraging students to plan various strategies that they might use to improve their final paper. Because online feedback is so timely this feedback can be provided with sufficient time prior to the submission of the second stage of the assessment to enable students to apply it to their final assignment. In addition, the use of the originality report offered through Grademark ensures that students have feedback on their level of originality and correct use of references prior to submission and encourages resubmission of drafts. This reinforces the idea of drafting and rewriting as a way of improving academic writing.