Improving student performance through enhanced feedback

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A R T I C L E   I N F O

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A B S T R A C T

A first year core marketing module (300 students) suffered from a lack of engagement by students outside of the ‘lecture’ environment, limited opportunity for formative feedback, poor student evaluation of feedback and weak achievement in summative assessment. A number of changes were made to a first year core marketing module to see if an increase in formative feedback, facilitated by increased student engagement would increase achievement. These included: removing the ‘lecture’ content and replacing it with narrated Powerpoint presentations on-line; requiring students to prepare 6 discussion papers in advance of teaching sessions which were then peer reviewed, discussed in class and an anonymised sample being lecturer reviewed in detail and posted on-line; teaching sessions also utilised a series of quizzes based on ‘lecture’ content, which were done as group activities along with a series of other group tasks that involved apply knowledge and presenting results that were then responded to by staff.

1. Introduction

Despite extensive evaluations of research into the impact of formative assessment on achievement (Black & William, 1998), Dunn and Mulvenon (2009) argue that the lack of current research into the various forms of formative evaluation means that a potential opportunity for achievement enhancement may be being missed. Formative feedback improves student performance (Gibbs, 2003), particularly where the feedback is given without an associated grade (Gibbs, 2010), because it is acted upon whereas summative feedback may be overlooked (Taras, 2008: p. 390). Formative feedback works best where it is frequent and the students have the opportunity to review the comments in order to improve summative submissions (Gibbs & Simpson, 2004). However, opportunities for increasing the amount and quality of formative feedback may be constrained by the need to impart information and the potential for non-engagement by students with the material.

2. Context 1

A first year core business course module in marketing suffered from poor results with more than 50% achieving only C or D and 15% failing. It was also clear in delivery that students were not engaging with material between taught sessions and therefore not preparing adequately for seminars, which also led to very poor attendance. Consequently this limited the intended positive impact of this material in preparing students for summative assessment and, whilst the overall marks given in module evaluations were satisfactory, produced negative comments regarding the usefulness of the seminar contributions. In order to address this, the teaching team decided to focus on engagement and to reinforce this with a formal attendance policy.

It is clear that the notion of engagement is significant in relation to student achievement (Carini, Kuh, & Klein, 2006; Yakovlev & Kinney, 2008), not only just the amount of time spent on each task but also the way those tasks are then integrated...
into the learning environment (Salamonson, Sharon, & Everett, 2009). Carini et al. (2006) argue that student engagement is one of the strongest predictors of achievement and also has a positive impact on the development of critical skills. Salamonson et al. (2009: p. 129) clearly identifies time spent on directed study outside of the classroom as being a strong positive predictor of academic achievement. ‘Time on task’ is identified of one of the guiding principles of good practice in Higher Education (Chickering & Gamson, 1987) and providing a number of tasks for students to undertake during the teaching period helps them to manage their own time and provides more opportunity for feedback (Nicol, 2009). In order to improve engagement the students were required to submit a written, anonymised discussion paper prior to 6 of the standard teaching sessions which in turn covered all the topics addressed in the second assessment. Nicol (2009: p. 49) also proposes that giving students greater choice in assessment as part of a process of encouraging greater engagement and consequently the decision was made to offer the students the choice of either a written report or exam for the second, end of module assessment.

Attendance is not necessarily a good indicator of motivation (Durden & Ellis, 2003) but does seem to have a statistically significant positive impact on academic achievement (Chen & Lin, 2008; Collett, Gyles, & Hrasky, 2007; Halpern, 2003; Moore, 2006; Moore, Armstrong, & Pearson, 2008: p. 17; Stanca, 2006; Yakovlev & Kinney, 2008). Although there has been some research suggesting a neutral (Martins & Walker, 2006) or negative (Schmidt, 1983) effect. Chen and Lin (2008: p. 225) quantify the positive impact of attendance on exam performance as between 9 and 18% and go on to say that the more a student attends the more he or she gains. Bowen, Price, Lloyd, and Thomas (2005: p. 376) note the importance of attendance and the need for a robust monitoring and action system. In order to ensure that the teaching session inputs and thus the impact of enhanced feedback was as uniform as possible across the groups for the purposes of evaluating success, it was clear that attendance would need to be reinforced. Consequently a policy was introduced requiring students to communicate reasons for absence 24 h before or after the relevant teaching session. In order to enforce this, all absent students were emailed immediately after each teaching session. The penalty for failure to follow the procedure was that three such occurrences would be considered a withdrawal from the module and therefore no summative marks would be considered.

A change in physical location of the Business School also lent itself to a re-evaluation of the teaching format and so a decision was made to change from a mass lecture followed by small seminar session to a simple 3 h teaching session, divided into an interactive lecture and a discussion paper. It had been noted that one of the areas of drop off in attendance was between lecture and seminar with students deciding that the seminars did not present sufficient learning value to warrant their presence. The discussion papers were intended to make the seminar session more useful by requiring students to prepare anonymised written answers in advance of attendance, to have the opportunity to review and discuss their own and other students work and to give and receive peer feedback on this work as well as tutor comment.

According to Lim and Rodger (2010: p. 576) lecturers are often faced with the problem of how to provide formative feedback to large groups with limited teaching teams and short periods of time between input and assessment. Lecturers often deal with large groups and a standard semester may only be 12 weeks long. One proposal for overcoming the large numbers was the use of peer assessment (Beaumont, O’Doherty, & Shannon, 2011: p. 675), however students express concern about other students’ ability to make appropriate judgements of their work. Topping (2005: p. 640) notes that whilst peer assessment can assist in the development of self-critical faculties it can also demand skills that students do not feel they have, or do not feel able to apply and as a consequence the quality and quantity of the feedback can be very limited, with often generic or only positive comments being offered which provide limited scope for improvement. Boud and Falchikov (2006: p. 204) suggest that lecturers need to help their students develop the skills for self-evaluation in order to improve their use of formative feedback and thus to be able to provide credible feedback to their classmates.

Gibbs (2003: p. 125) argues that it is essential for students to be set work which is not necessarily formally marked in order to encourage a sufficient level of engagement. He goes on to say that giving the students the opportunity to assess examples of good and bad work improves the amount and value of their own studying and supports the use of peer feedback as one method of achieving this. Hassanien (2007: p. 137) identifies a number of benefits inherent in group work, including exchanging information leading to greater breadth and depth of knowledge as well as a shared experience which reduces concerns relating to assessment. Van den Berg, Admiraal, and Pilot (2006: p. 34) see evidence that students appreciate peer feedback as providing useful assistance in preparation for assessments.

2.1. Method

The students completed two evaluations of the new format focusing on the importance of the assessment choice and the helpfulness of the discussion papers. They also completed the standard University Module Evaluation, which specifically mentions the usefulness of feedback. The results for both summative assessments and the overall module scores were then compared across years.

2.2. Results and discussion

2.2.1. Attendance

The overall level of attendance was 89% and there was no drop in numbers between the first and second half of the teaching session. There were very few ‘unauthorised’ absences from class and most of those were made up from students who had withdrawn from the module for various reasons. Students responded well to follow-up emails and anecdotal evidence...
confirmed that leaders of other modules also noted increased attendance and student communication to indicate reasons for absence.

However, the qualitative feedback made it clear that there were still significant perceived problems such as: too many lecturers; poor peer feedback; discussion paper clash with assignment hand-in; link between discussion papers and assessment was unclear; lectures too long; lack of assessment guidance.

2.2.2. Module evaluation

The students were clearly positive about the importance of having a choice of second assessment (Fig. 1), despite only 18% choosing to do the exam instead of the report even though in the preliminary research it was clear that more students were used to doing exams and more students preferred to do exams rather than reports.

The students were quite positive about the helpfulness of the discussion papers (Fig. 2) despite a roughly equal number of positive and negative comments regarding them.

This may have been because though the students were positive about the directed nature of the study and the assistance to time management, they were disappointed at the quality and quantity of peer feedback that was provided as well as a perceived lack of lecturer feedback. There was also a specific clash with a piece of summative assessment on another module. Students seemed to suggest that for the effort that they put into the discussion papers they did not generate sufficient value in terms of feedback or enhanced summative marks. They also didn’t seem to associate the changes from seminar papers to the discussion papers with enhancement in feedback; the satisfaction for this dropped from 84% to 64% (Fig. 3).

The students also didn’t seem to make the connection between the discussion papers and the second assessment, which seems to explain the continued calls for more guidance regarding the assessment.

2.2.3. Assessment results

The results for the assessments showed that, although more As were given for both the group presentations (Fig. 4) and the report (Fig. 5), the general trend was a slight negative one. While in both cases non-submissions were eliminated this was almost certainly due to a new University policy regarding payment for re-takes due to non-submission. Overall the module marks distribution moved from a standard curve with just over 50% getting Cs and Ds to a progressively negative range, with 75% of students getting Cs and Ds (Fig. 6). However, there was a small improvement at the top end and there was a substantial decrease in the number of fail grades, so our efforts have clearly had a positive impact on the weaker students.

2.3. Conclusions

The students like having a choice of format for the second assessment, but this choice had not helped improve module marks; though it seems to have been a factor in reducing the number of fails. The students acknowledged the potential benefits of the discussion papers but did not seem to make or even recognise an explicit connection between the feedback available and the second assessment. A difficulty seems to lie in the students’ abilities as an evaluator of their own and others’ work.

A second issue associated with the impact of summative feedback arose because the majority of students simply don’t collect assignments and consequently miss out on the opportunity to learn from the feedback and thus improve subsequent performance. Those students who did collect their summative assessments appeared to only be interested in the grade and thus ignored the feedback, except where they felt aggrieved at the mark their work had received and were attempting to challenge the basis upon which it had been awarded. As Bailey and Garner (2010: p. 199) confirm, the problem with feedback

Fig. 1. How important was it to have a choice of second assessment?
associated with summative assessment is that students only pay attention to their grades and thus the learning opportunity associated with feedback is lost. They also suggest (p. 195) that the value of feedback is diminished by inconsistency between working terms of the amount, quality and consistency of feedback relative to the mark given. Boud and Falchikov (2006: pp. 407–408) make it clear that there is a “need to consider separating comments from grades because grades distract from engaging with feedback”, that students should discuss feedback in groups and that there needs to be a process by which feedback directly influences the way students undertake further learning activities.

It is clear that students place a high value on feedback that they perceive as helping them to improve their work (Hyland, 2000; O’Donovan, Price, & Rust, 2004) as long as that improvement applies to their immediate performance (Beaumont et al., 2011: p. 684). However, according to the National Student Survey (2011) only 60% of students on full-time courses in English HEIs felt that the feedback they received on their courses helped them to clarify their work.

Gibbs and Simpson (200: p. 17) indicate that for feedback to be most effective it needs to be frequent and to be applied to small sections of material. Gibbs also indicates that students will pay more attention to feedback if it is provided without a grade. Even with summative assessment Taras (2001) recommends providing a grade only after feedback and student self-assessment have been completed. As she points out,

“A distinguishing feature between summative and formative assessment is that feedback is used by the learner in the latter.” (Taras, 2008: p. 390)

It was clear that there was a need to focus on improving formative assessment and ensuring that the students understood the occurrence and value of this feedback. It is recognised that for feedback to be most useful it should provide students with information that they can directly use to improve subsequent work. The clearest way to do this, rather than asking students to carry forward feedback to future modules, is to provide formative feedback that can be used to help enhance summative assessments (Gibbs & Simpson 2004). Formative assessment enables students to address issues related to their own learning development and have a better understanding of the assessment requirements, as well as providing the opportunity for peer and lecturer support (WestEd 2010: p. 21).

Dunn and Mulvenon (2009) demonstrate that formative assessment has many positive impacts on both students and staff, including higher student achievement. Gibbs (2010: p. 165) identifies that those universities with high levels of feedback

<table>
<thead>
<tr>
<th>Question</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>N/A</th>
<th>Total Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>I was provided with helpful feedback on my progress during the course of the module</td>
<td>2009</td>
<td>10</td>
<td>42</td>
<td>8</td>
<td>2</td>
<td>84%</td>
</tr>
<tr>
<td></td>
<td>2010</td>
<td>20</td>
<td>74</td>
<td>44</td>
<td>3</td>
<td>5</td>
</tr>
</tbody>
</table>

Fig. 2. How helpful were the discussion papers?

Fig. 3. Comparison of feedback results from University module evaluation.
satisfaction are often the ones that have large amounts of formatively assessed work and thus provide the greatest opportunities for students to practice, learn and apply.

3. Context 2

It was decided that, in order to give more time in the teaching sessions to discuss and opportunities to undertake assessment, evaluation and feedback, the purely information focussed ‘lecture’ input would be moved from the physical teaching environment. To achieve this we edited a set of Powerpoint slides, to remove activities that could still be used in class, and posted narrated versions of these on the University VLE module site. Although Hammonds (2003) shows that increasing internet support can lead to worse attendance, Hove and Corcoran (2008: pp. 93–94) found that lecture presentations posted on-line can have a positive effect on student achievement and did not negatively affect attendance rates. Grabe and Christopherson (2007: p. 8) note that students who attended lectures also made greater use of on-line materials. It was felt that the advantage for the students of this format was that they would be able to access the material at a time that was convenient to them, could take breaks whenever they wanted and would have the opportunity to go back over material that they either missed or had difficulty absorbing. In order to encourage engagement with the material for most of the sessions there was a short, group quiz held at the beginning relating to the information on the slides. It was also intended that students should use the results of these quizzes as feedback on their progress.

The second change was to make more explicit the opportunities for feedback by including an interactive session in the first taught session. Students were invited to consider what feedback was and where it occurred. There was then lecturer reinforcement of the notion of formative feedback, an indication of where it would occur and how it was intended that this should help students to improve their performance.
Thirdly, the discussion papers were aligned more explicitly with the elements of the second assessment and, as well as the peer and tutor feedback in class, two discussion papers for each topic were selected randomly from free-choice electronic submissions and provided with detailed feedback that was posted on the module Blackboard site.

3.1. Method

As before, the students completed two evaluations of the new format focusing on the importance of the assessment choice and the helpfulness of the discussion papers. They also completed the standard University Module Evaluation, which specifically mentions the usefulness of feedback. The results for both summative assessments and the overall module scores were then compared across years.

3.2. Results and discussion

3.2.1. Attendance

The attendance continued to be monitored on a weekly basis and all students who did not inform the module leader of their absence within the 24 h +/- of the teaching session being emailed for an explanation. The attendance level remained at 89%.

3.2.2. Module evaluation

The number of students who felt it was important to be able to choose the assessment format for the second assessment was marginally higher, but the number for whom this was very important fell from 70% to 56%, although the number who felt it was not at all important dropped to zero (Fig. 7).

![Fig. 6. Comparison of overall module results 2009/2010.](image)

**How important was it to have a choice for the second assessment?**

![Pie chart showing the results for the importance of having a choice for the second assessment. Not at all: purple, Not much: red, Somewhat: green, Very: blue.](image)

**Fig. 7. How important was it to have a choice of second assessment?**
The number of students who thought the discussion papers were helpful dropped proportional across responses, with positive values falling from 77% to 67% and the number who didn’t find them at all helpful rising from 3% to 7% (Fig. 8).

This was despite the teaching team indicating that each discussion paper related directly to a section of the second assessment; that each student had the opportunity to compare their work with that of another student; that each student had the opportunity to discuss their discussion papers with a small group of their peers; that a number of students had the opportunity to offer their answers in class and that feedback was given by the lecturer in class; that students were given the opportunity to comment on the work of another student and consequently received peer feedback on their own discussion.

Fig. 8. How helpful were the discussion papers?

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</tr>
<tr>
<td>2010</td>
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<td>64%</td>
</tr>
<tr>
<td>2011</td>
<td>27</td>
<td>111</td>
<td>96</td>
<td>20</td>
<td>23</td>
<td>50%</td>
</tr>
</tbody>
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Fig. 9. Comparison of feedback results from University module evaluation.

The number of students who thought the discussion papers were helpful dropped proportional across responses, with positive values falling from 77% to 67% and the number who didn’t find them at all helpful rising from 3% to 7% (Fig. 8).

This was despite the teaching team indicating that each discussion paper related directly to a section of the second assessment; that each student had the opportunity to compare their work with that of another student; that each student had the opportunity to discuss their discussion papers with a small group of their peers; that a number of students had the opportunity to offer their answers in class and that feedback was given by the lecturer in class; that students were given the opportunity to comment on the work of another student and consequently received peer feedback on their own discussion.

Fig. 10. Comparison of assessment 2 results (individual reports).
papers; that all students had the opportunity to look at the detailed feedback provided to two anonymised discussion papers that were posted on the module Blackboard page.

Worse, the satisfaction rating for the module evaluation question (Fig. 9) “I was provided with helpful feedback on my progress during the course of the module” fell from 64% to 50% meaning a total fall in satisfaction from 2009 to 2011 of 34%.

This figure is even more baffling when taking into account that the regular quizzes had provided regular feedback to students on their progress, clearly indicating their engagement with the ‘lecture’ material. Taking the ‘lectures’ out of the teaching sessions had allowed more discussion, application and questioning in class, which also increased the continuous informal formative feedback that the students received throughout the course.

3.2.3. Assessment results

However, the achievement of the students in both the second assessment (Fig. 10) and the overall module mark (Fig. 11) clearly increased with more As and Bs as a percentage of the total marks and a substantial shift from Ds to Cs as well as a substantial drop in fail grades.

Interestingly the marks for the presentation (Fig. 12) changed much less with more Bs being converted to As but otherwise the marks just producing a more regular distribution curve.

3.3. Conclusions

It would appear that students struggle to understand the process of learning in Higher Education and this could well be because of the differences in culture between the secondary and tertiary systems. According to Beaumont et al. (2011: p. 680)
Students, who were very happy with the support and guidance that they had received in school, were dissatisfied with the levels of support and guidance offered at university and that this dissatisfaction occurred within the first few months (p. 677). They go on to say (p. 678) that students expressed a general difficulty in grasping the different requirements between ‘A’ levels and degrees, exacerbated by a lack of specific features such as feedback on draft assignments (p. 676). In particular students seem unable to link a lack of critical thinking and analytical skills with poor marks (Amin & Amin, 2003: p. 555).

According to Lim and Rodger (2010: p. 584) formative feedback is particularly important for first year students as a method of helping them to adjust to a different learning environment with new requirements and expectations. It is most effective when it is perceived as being enjoyable and useful. Poulos and Mahony (2008: p. 145) also identify that feedback is essential in helping first year students make the transition from school-type study to that required in higher education, in particular study requirements, presentational processes and evaluation standards.

It is clear that students require a greater and more explicit introduction to the processes and requirements of Higher Education learning and this will be part of the next set of changes to the module. It also seems clear that students who only have 8 weeks experience of the higher education learning process are probably not qualified to evaluate these processes because they have little to compare them to other than their school and college experiences which are likely to be substantially different. At the very least this suggests that module evaluations for first year, first semester modules should occur after the final results have been released and possibly not until the evaluations are underway for the second semester. It might even be better at this stage not to ask students to evaluate modules in isolation but as part of a complete first year experience.

The new approach to delivery has improved the student achievement. However, it should be possible to provide more online support and in a greater range of formats. Currently there are narrated slides, digitised chapters and e-books. For the coming year it is intended to add self-test quizzes, videos, web site links and other sources to the module Blackboard site. It is intended to make even more explicit where formative feedback is provided and to assist the students in developing their critical skills by including a session on discussion paper marking that offers two exemplar pieces for the students to practice on. The students will also be encouraged to develop their own criteria for discussion paper feedback. The discussion papers will also be simplified so that students need to consider depth rather than breadth. It is also intended that students provide personal examples to illustrate points to demonstrate understanding and to reinforce the process of learning by application.

References


Moore, R. (2006). Class attendance: how students...


