Good Practice Guide in Learning and Teaching

Quality Unit
Aston BusinessSchool
December 2003

Produced with support from the
Centre for Staff Development

CONTENTS

EDITOR'S INTRODUCTION **1**

HELEN HIGSON **1**

WORKSHOP ON BUSINESS ETHICS **3**

CAROLE PARKES **3**

WHY THE WORKSHOP? 3
THE NATURE OF BUSINESS ETHICS 3
DELIVERING THE TEACHING OF BUSINESS ETHICS 3
THE WORKSHOP 4
WHAT WAS THE OUTCOME? 4
ADVANTAGES 5
DISADVANTAGES 5

ENCOURAGING NON-ASSESSED PARTICIPATION IN CASE PRESENTATIONS **6**

PAULA JARZABKOWSKI **6**

INTRODUCTION 6
THE EXISTING APPROACH 6
THE NEW APPROACH 6
THE OUTCOME 7

TACKLING STUDENTS' LEARNING PASSIVITY: DEVELOPING NEW PRACTICES **8**

JOSEPHINE KELLY **8**

THE NATURE OF PASSIVITY 8
THE NEW APPROACH 8
CONCLUSION 10
BIBLIOGRAPHY 10

SIMULATING A HOSTILE MEETING **11**

DUNCAN SHAW **11**

THE BACKGROUND 11
THE FIRST MEETING 11
THE SECOND MEETING 12
OBSERVATIONS 12

USING QUICK CHECKS QUESTIONS TO ENHANCE STUDENTS' LEARNING OF MANAGEMENT ACCOUNTING **14**

OMNEYA ABD-ELSALAM **14**

INTRODUCTION AND CONTEXT 14
QUICK CHECK QUESTIONS 14
WHAT IS DIFFERENT? 15
OUTCOME 15

TYING ASSESSMENT TO THE ABILITY OF STUDENTS TO ASK QUESTIONS DURING PRESENTATIONS HAD A POSITIVE IMPACT ON CLASS PARTICIPATION. 16

TIM WATTS 16

THE BACKGROUND 16
THE APPROACH 16
CONCLUSION 17

'GOING LIVE': USING THE INTERNET IN REAL TIME DURING LECTURES 18

NICK LEE 18

THE CONTEXT: 18
THE APPROACH 18
SOME POTENTIAL PROBLEMS: 20

USE OF BLACKBOARD™ TO SUPPORT TEACHING 21

NELSON TANG 21

BACKGROUND 21
EXAMPLES OF USING BLACKBOARD™ 21

SHARING OF PRESENTATIONS USING BLACKBOARD 23

JOHN S EDWARDS 23

THE BACKGROUND 23
THE APPROACH 23
THE OUTCOME 24

USE OF FORUMS AND QUIZZES WITHIN BLACKBOARD™ TO PROVIDE EXTRA HELP AND FEEDBACK 25

GARY SIMPSON 25

BACKGROUND 25
THE INTRODUCTION OF DISCUSSION FORUMS AND QUIZZES 25
OUTCOME 27

USING ON-LINE QUIZZES 28

MICHEL J. LESEURE 28

CONTEXT OF USE: 28
WHY USE ONLINE QUIZZES? 28
HOW DOES IT WORK? 28
RESULTS AND COMMENTS 29
LIMITATIONS 29

EDITOR'S INTRODUCTION

HELEN HIGSON

The Quality Unit is very proud to present its first Learning and Teaching Good Practice Guide. Following our recent Quality Assurance Agency (QAA) Development Engagement we were asked to look at ways to disseminate and share the many examples of thought-provoking and innovative learning activities which were being carried out across the School. This publication is, therefore, produced to celebrate and promote such good work, to offer encouragement to those at the front line in challenging students' learning habits, and to put forward ideas that other lecturers might like to try.

Contributors to this Guide were not chosen because they are the best teachers in the School, although they are undoubtedly all exponents of enthusiastic and inspiring approaches to learning. The Quality Unit approached these individuals because they declared on their Annual Monitoring forms that they were doing something interesting and worthwhile which they thought others might find useful. Amongst those reading the Guide I am sure that there are many other staff who are trying to operate similar examples of good practice in their teaching, learning and assessment methods. I hope that this publication will provoke these people into providing comments and articles of their own, and that these will form the basis of next year's Guide.

Contributors span all Subject Groups within the School, and the articles include examples of teaching and learning methods for undergraduate and postgraduate students in both mass lectures and small groups. Although the approaches presented are very diverse there is a remarkable similarity in the main themes which they address, and maybe these form the very spirit of the high quality approach to learning offered at Aston Business School. To begin with, many of the methodologies aim to bring 'real life' work-based learning examples into the classroom. This is done via the involvement of practitioners (real and fictious), of up-to-date examples, and by the creation of tasks which mirror those functions which students will meet when they start work.

Secondly, and linked to the first theme, the contributors seek by their enthusiasm and reflection to develop students' personal as well as their academic and subject-specific skills. As well as demonstrating that they are constantly reviewing and reflecting on their own teaching, these lecturers are also challenging students to think about their own learning processes. They are confident enough to involve students in the discussion and evolution of the modules they teach, even to the extent of development a kind of learning contract with the student. Realising that the school curriculum often leads to a passive approach to learning, staff are taking on the mission to re-educate their audience with a range of learning strategies – to reading, thinking and arguing, for example. In our promotional literature we have often said that ABS encourages a student-led learning culture. It is pleasing to find evidence across these articles that this is undoubtedly true. The Aston approach, if these contributions are anything to judge from (and I think they are remarkably representative) is to help students to take control of their own learning and, as one contributor states, change "the mode of students from recipients into participants."

In approaching these themes the contributors demonstrate the awareness that different students have different learning needs. A Combined Honours undergraduate, for example, will demand a different approach from a part-time MBA student. These lecturers are, therefore, showing their awareness of the School's diverse student population, but also of the balance between high quality learning experience and large numbers which has had to become a major preoccupation of all staff in recent years.

Finally, three of the articles involve the use of the Blackboard™ virtual learning environment. Most ABS staff are now using this medium, but most of us, it must be admitted in a somewhat passive way to provide handouts and other learning materials. The contributors to this Guide have taken the use of the VLE further to create more interaction, more immediate feedback and also to mirror more effectively diverse student learning needs. What the staff are doing could easily be used in other contexts. They have experimented and are very open about their experiences.

May I thank the contributors for taking time out of their busy schedules to write the articles this summer, and to Julie Green for putting our diverse approaches into a coherent and publishable form.

Dr Helen Higson
H.E.Higson@aston.ac.uk
Director of Quality
Aston Business School

The Centre for Staff Development is pleased to support the publication of this Good Practice Guide. Sharing of good practice is an important strand in implementing the University's commitment to the enhancement of quality of learning and teaching within the institution, and this publication is therefore being made available to all teaching staff and to others involved in supporting learning. I commend to you the ideas captured in these case studies for perusal in relation to your own teaching; I would hope that they will help you to reflect on your own teaching practice, and that you will try out many of the ideas for yourself. By the summer of 2004 the institution will have established a Learning and Teaching website as a focus for disseminating good practice, and I hope that in due course we will be able to read of your good experiences!

Dr Ann Morton
A.P.Morton@aston.ac.uk
Head of the Centre for Staff Development

WORKSHOP ON BUSINESS ETHICS

CAROLE PARKES

Workshop on Business Ethics in conjunction with external business professionals from the Birmingham Centre for Business Ethics (BCEO).

Why the workshop?

The BH3302 module, Managing Problems and Conflicts in Organisations, includes ethical issues within the content of the module and the workshop was organised in January 2003 as a supplement to the lecture sessions. The workshop stemmed from discussions with BCBE about the nature of business ethics and its inclusion in the curriculum.

The nature of business ethics

Ethical considerations arise in all aspects of business activity, and in all sizes and types of organisation. Personal morality and business ethics inter-twine but they are not the same thing. Likewise legal frameworks and codes of practice are important in shaping ethical behaviour but at the heart of any civilised society is the need for individuals to accept responsibility for their own actions. Ethical issues are seldom black and white and business schools have an important role in promoting an appropriate ethical ethos across all business activities.

Delivering the teaching of business ethics

Ethics is an area of the curriculum that is difficult to 'teach' for a number of reasons.

Firstly, what is the aim of such sessions? Are we engaged in 'moral' education or are we trying to prepare students to seriously wrestle with ethical quandaries, difficult disagreeable tradeoffs between efficiency and justice and moral contradictions encountered in everyday life? The role of education can be described as the encouragement of the proactive self, thinking and independence of thought, inquiry and debate and this should be the approach to the teaching of business ethics. Indeed, the Institute of Business Ethics suggests the following aims for education:

1. To foster awareness of ethical components of managerial decision making;
2. To legitimise the ethical components of managerial decision making;
3. To provide conceptual frameworks for the analysis of the ethical components;
4. To aid the individual to become confident in the use of such frameworks and help students apply these ethical analyses in day to day business decisions

The last aim can be considered to be the most difficult of all. However well intentioned, it can be difficult for new employees in junior positions to apply such frameworks when confronted with ethical dilemmas. Leadership, culture, climate and peer group pressure all play a part in the acceptability of actions in the workplace and it is therefore vital that these areas are not taught only through

knowledge transfer but that students should have the opportunity to explore the issues in a more personal way.

One way to achieve these aims is to use experiential learning to supplement classroom education based on making students aware of ethical and social dimensions of the business making process i.e. learning that involves emotion and not just rational learning. The workshop approach was designed to achieve these aims.

The workshop

The workshop was run in the evening to enable the BCBE guests to attend and we had 100% turnout from the 30 students who had signed up to attend. The students work in groups within the module and steps were taken to ensure all groups from the module were represented at the workshop.

The workshop ran for two hours and the business professionals presented the importance of ethical consideration in business from their specific experiences. They then proposed ethically laden case studies for the students to discuss in groups. Each group presented their thoughts and conclusions on the given dilemmas and these were considered in plenary session at the end of the workshop. The emphasis through out was on self reflection, consideration of decisions within given frameworks and reasoned argument.

What was the outcome?

The business people taking part were very impressed with the quality of discussion and consideration given to the dilemmas by the students and the feedback from students about the event was excellent. Indeed, one of the students wrote a report for the BCBE newsletter in which she commented;

"Ethics is one of those topics where there are no clear-cut answers, and similarly, the proposed case studies offered no easy solution, but as neither were of a morally extreme nature unlike the much-publicised Maxwell or Enron scandals, both were relatively tangible, highlighting conceivable dilemmas management face on a daily basis, challenges we may ourselves be confronted with in the future.
The seminar was beneficial from both a personal and academic perspective. The discussions were informal and interactive, encouraging contribution to the interesting debates. The case studies identified issues you otherwise would not directly attribute with ethical concern, expanding awareness of the diverse circumstances where ethic and moral competences need to be employed in an organisational setting. Overall, the BCBE constructively presented a fascinating, critical business topic, a worthwhile experience for any student aspiring to enter the world of management."

The students who attended the workshop helped to run a feedback session with their groups at the following weeks lecture. The other students were also given the opportunity to confront the dilemmas provided by the business professionals.

It is intended to set up a similar workshop for the students on the module next year and the BCBE are now hoping to work with other Universities in a similar way following the success of the event at Aston.

Advantages

1. Experiential learning enabling students to work through situations and make their own decisions.
2. 'Real life' examples discussed with those who had experienced the situations first hand. Students enjoyed the opportunity to meet practitioners.
3. Students felt it was of benefit to them for their future careers, beyond their degree studies.
4. Success of workshop has led to repeat of workshops for next year and possibility of expansion to other Universities.

Disadvantages

1. Workshop runs outside lecture hours because of attendance by external visitors.
2. Limited number of students could attend (limited to 30 because of group size and level of discussion). Mechanism had to be put in place to share experience with other students on the module.

Carole Parkes
C.L.Parkes@aston.ac.uk
Work and Organisational Psychology Group
Example used with undergraduate students
BH3302: Managing Problems and Conflicts in Organisations

ENCOURAGING NON-ASSESSED PARTICIPATION IN CASE PRESENTATIONS

PAULA JARZABKOWSKI

Introduction

The case-based method is a justifiably popular teaching technique in business schools, since management is an applied discipline in which knowledge should not only be theoretically important but also have links to practice. Case studies can provide practical illustrations that serve as the basis for classroom discussion of complex theoretical topics. Through the critical analysis of a case study, students not only become more familiar with analytic techniques and theories, they also have the basis to evaluate critically these theories and techniques.

The existing approach

A case can, however, only be of benefit for classroom discussion if the students have read it! Like most people, I have struggled with ways to encourage students to read cases in advance of the lecture. Where cases are assessed or must be presented by a particular syndicate group, there is little problem with getting the presenting group to undertake the necessary work, but their efforts are largely lost on classmates who have not prepared by reading the case. The result is bored students, low motivation for the presenters and a lost learning opportunity. Over the years I have attempted to combat this problem in various ways, each of which has different problems. For example, assessing participation is fine in small seminar groups, where individual participation scores may be noted. In large classes, however, this becomes unfeasible. Alternately, expecting the whole class to prepare a presentation and then choosing only one or two to present is unfair in terms of workload on busy students.

The new approach

Last year, I tried a new approach. Each week that there was a presentation, on the day of the presentation I would draw ‘participation groups’ out of a hat and require them to ask the presenting groups questions about their presentations. While the presenters were informed at the start of the term about their due presentation dates, no group knew until the class whether they might have to be the inquisitors. Since good questions require a group to know the case study, all students needed to read the case in order to be prepared for their name to be drawn out of the hat. I also provided time in class for groups to get together and think about the relevant questions they might want to ask on any specific case study. Having to ask questions thus required students to engage with the case material and also with the presentations.

The outcome

Overall, this was much more motivating for the presenters, kept the audience attentive and provided the basis for class discussion since the questions did have the desired effect of generating participation. So, overall I thought the technique worked. Nonetheless it was not without its drawbacks from the students' perspective. The feedback indicated that some students found this technique helpful for stimulating them to read the cases. Others suggested, however, that the 'on-the-spot' nature of the exercise, drawing participants from a hat, was too confrontational. I can see that for some students, having to question peers might be seen as potentially threatening to their peers, which could cause some reservations. On reflection, I plan to use this technique again but explain to the students much more clearly the rationale behind it and seek their consensus on the technique as a means of ensuring their own participation in classes. I cannot say that this is an example of best practice, so much as an example of a practice I have tried that has had mixed success. I welcome others' illustrations of how they deal with the problem of classroom participation in case exercises, particularly where this participation is not assessed.

Dr Paula Jarzabkowski
P.A.Jarzabkowski@aston.ac.uk
Strategic Management Group
Example used with postgraduate students
BSM900B: Strategic Management

TACKLING STUDENTS' LEARNING PASSIVITY: DEVELOPING NEW PRACTICES

JOSEPHINE KELLY

The nature of passivity

A number of factors contribute to undergraduate students' learning passivity. Before reaching higher education surface learning strategies may be sufficient for success. When they reach university factors such as time and curriculum constraints on higher education teachers can unintentionally compound students' preferences for surface learning and to eschew deep learning strategies (Biggs, 1999). The insufficiencies of surface learning strategies usually first surface for undergraduate students when they attempt the diverse range of assessments used in universities. For the student, different forms of assessment require diverse skills and a range of learning strategies if they are to demonstrate their newly acquired knowledge and understanding.

Paradoxically as factors that produce students' learning passivity increases, other pressures reduce opportunities for undergraduates to acquire and use deep learning techniques. Most notably, the traditional seminar has declined in importance, mostly because the increases in class sizes makes it difficult for universities to continue to provide the necessary resources. In the post 1992 sector, in addition to increased numbers, there is some evidence that pressure to adopt non-traditional forms of assessment has reduced the effectiveness of seminars (Brooks, *et.al* 1996). Regardless of the reason, the significance of the declining importance of seminars for student learning is that it reduces the space for students actively to explore their newly acquired knowledge and understanding in a supportive environment, with guidance on hand from a teacher.

These factors are well represented at Aston University. Pressures on students to achieve at 'A' level, encourage a form of learning that is ultimately unsuitable for study at university. The Combined Honours programme presents a special challenge to lecturers who are ambitious to cover a wide syllabus, whilst the size of most classes has burgeoned, a consequence of multiple pressures on finite resources. Time constraints, restricted tutor contact time and large classes makes it impractical to offer students the arenas were they could present and discuss their own recently acquired knowledge and understanding similar to those enjoyed by previous generations.

For level two students taking modules on the public policy stream of the Combined Honours programme these factors are compounded by their 'common sense' understanding of the marginal worth of the year's modules to their final degree class, and many voiced their conclusion that they could afford to 'coast'. Nevertheless, the level two syllabuses provide essential core theoretical and practical material, which they need to draw on during their final year.

The new approach

To address these issues, I designed a learning and teaching strategy that used the existing constraints to maximise students' activity by using small group discussions around questions provided by the lecturer. These questions were similar to those I would ask students to consider in a traditional seminar. The form of the two-hour session would comprise of 45-55 minutes introduction to the topic, followed by 40-45 minutes work in small groups, concluded by a 15-20 minutes plenary session.

In addition to writing questions around the topic, and to encourage the students to investigate further, the pedagogic objectives were:

1. To encourage students to develop deep learning by providing opportunities for them to explore their newly acquired knowledge and understanding by discussing core themes with their colleagues.
2. To provide a frame by which they could encounter and explore aspects of the syllabus typically assessed by examination.
3. To provide a focus for their independent learning.
4. To provide a resource which they could draw on in other aspects of their degree programme.

Formatted: Bullets and Numbering

Overall, the students' reactions to the discussion groups were mixed. Classroom observations found that the students responded broadly in similar ways;

Positive:

1. They acknowledged the benefits of having a framework upon which they could intellectually build through their private study.
2. They enjoyed the challenge and opportunity to discuss their understanding of the topic with their peers and the lecturer.
3. They welcomed the opportunity to apply and contextualise their knowledge and understanding to different situations within a supportive environment.

Formatted: Bullets and Numbering

Negative:

1. Several students expressed their concern that they were not receiving 'sufficient' information from the lecturer. They suggested that the time spent on the small group discussions should have been used as a lecture, where they would obtain more information. Interestingly, there was some correlation between those students who expressed this opinion, yet were poor attendees.
2. Students were anxious having their learning passivity challenged. This was especially the case for those students who were successful in spite of their surface learning strategies.
3. There were a number of students who were worried about their perception of having only a poor understanding of the topic and feared loss of face in front of their peers.
4. Some students found it difficult to focus and would act to distract the group away from the task.

Whilst the groups worked on the discussion points, I spent time with each of them. It was noticeable when I visited the groups, several students continued to demonstrate their learning passivity by looking to the lecturer to 'provide the correct answer'. Others, however, began to look for thematic connections between the discussion points, the lecture and the recommended reading for the topic. Though informal discussions, most of the students' concerns were discussed with the lecturer, however, in the context of their degree programme there was limited opportunity to encourage the students to consider to greater reflexivity towards their learning.

By providing a supportive environment, which dealt sensitively with their anxieties and provided the means by which their confidence could be developed, at the end of the academic year, most students welcomed the discussion points approach and acknowledged the benefits to them of deepening their

learning. Yet more significantly, students were able to demonstrate their improved understanding of the subject. Nevertheless, there remain students who continue to use surface learning strategies, illustrated by their over reliance on lecture notes, class handouts and the core text-books.

Conclusion

This is one approach that aims to address the issues discussed earlier. It is predicated on a model of teaching and learning that privileges active student participation and seeks to foster their active involvement, as a corollary, it also seeks to encourage students to adopt deep learning strategies.

Bibliography

Brooks, J.T 1999 with Farwell, Spicer & Barlow 'Seminars and Examination: Students' Perceptions of the Seminar in their Examination Revision Strategy'*Innovations in Education Training International* (36.3).

Biggs, 1999 *Teaching for Quality learning at University* Open University Press/SRHE

Race, P 199 9 *2000 Tips for Lecturers* Kogan Page

Dr Josephine Kelly
J.T.Kelly@aston.ac.uk
Public Management and Sociology Group
Example used with undergraduate students
BP2233: Strategic Management for Public Services

SIMULATING A HOSTILE MEETING

DUNCAN SHAW

Ever had to collect data from an unhelpful and hostile person who is suspicious of your intentions, suspicious of his/her boss's intentions, and openly challenges and feels threatened by your presence? This is a description of the person who is the only source of information for this final-year undergraduate group project.

The background

The assignment (50% of marks for BN3324 Simulation module) requires the development of a discrete event simulation model for a factory that builds dinghies. The assignment is handed out in Week 14 and submitted in Week 23. The students are organised into groups of 4-5 'consultants' who have been hired by the organization to advise on how to improve manufacturing operations.

Each student group has two 30 minute meetings with the foreman of the factory (in Weeks 15 and 20). Students are told that the first meeting is to collect data to build their simulation model, and the second is to demonstrate a pilot model and receive feedback. In reality the first meeting is to give students only enough information to build a 'rough and ready' first model and to provide enough contradictory misinformation that students in the same group will leave the same meeting with subtly different perceptions of the situation. Furthermore, the second meeting is really for the foreman to raise concerns over the accuracy of the model and the competency of the students, and then to focus on providing enough accurate information clearly so that the students can complete the entire assignment.

The first meeting

Prior to the first meeting students are given a lecture on the types of questions a simulation consultant should ask during an interview to capture data to build a simulation model. Students have also spent only two hours working with the modelling software in tutorials.

During the meeting

The early part of the meeting is always uncomfortable for the students. This discomfort is created by the foreman:

- Making them feel distinctly unwelcome.
- Being openly annoyed that he was forced to meet them when he is so busy.
- Challenging them on their project and the implications of it for the organization.
- Asking difficult questions about the techniques they are proposing.
- Not allowing audio-tape recording of the meeting.

Only twice have these conditions been pushed to the limit. Once the foreman had to tell a group to leave his office – but only after a student threatened him that he'd go to his Chief Executive if he did not co-operate. On one other occasion the foreman had to raise his voice to a group – but one of the students started it!

Normally the rest of the meeting goes a little better than the opening 10 minutes. Relations improve to being cordial as the foreman begins to waffle about irrelevancies. This is designed to lead the students away from the important issues. If not controlled/structured by the students then the foreman will tend to provide information so rapidly that the students have problems with their note-taking. This is designed to cause problems in the group post-meeting when they review their notes and try to build the simulation model on 3-5 different versions of the same meeting – emphasising to the students how important are reflection and checking with the interviewee during the meeting.

After the meeting

Following the meeting, the early part of the next lecture is dedicated to a debrief. Students always want to complain about the foreman and his attitude and treatment of them. We quickly move on to focus on why the foreman was hostile, what could have been done during the meeting to rescue the situation, and what should be done differently at the second meeting.

During the first meeting with the foreman students often ask for historic data to inform the model coding. The data is provided to them before the second meeting. That data contains some noticeable errors that the students often miss, requiring the lecturer to draw their attention to it before the second meeting so they can ask the foreman about the discrepancies.

The second meeting

The students meet the foreman again and they immediately get off to a better start even though the foreman is still hostile towards them. He will put them under more pressure by:

- Questioning the quality of the work the students show him.
- Blaming them for ignoring part of the factory (part he intentionally left out in the first meeting).
- Challenge the accuracy of their note-taking when asked for clarification on data.

He will then provide accurate details of the factory at a pace which they should be able to write legibly. He will force them to double check it with him, but only if they do not force him to do so.

Observations

The students appear to sink in the first meeting with the foreman (sometimes visibly into their chair) but they rebound from that disappointment and perform much better in the second meeting. They know a little more about his character and are more able to ignore his unpleasantness and focus on their job of getting the data.

Some students are observed to have problems with the treatment – reminding us of the importance of being aware of where we target the unpleasantness. A little unpleasantness is directed at the student group and at times at individuals, as it would be by such a foreman. The groups are hopefully big enough to provide the students with enough ‘safety-in-numbers’ support during the meetings, and ‘we’re in this together’ during the whole assignment.

One noticeable advantage of this approach is that relations between the students and the lecturer strengthen. Students want to complain to, or get advice from, the lecturer and seek him out after the lecture to an extent that is not common in his other modules. Also, it seems like the students compare experiences across groups which gets them talking to others and builds a good spirit during the lectures/tutorials.

The disadvantage is the amount of effort it takes for the foreman to meet every group twice for 30 minutes. Also, we have learned that good notes need to be kept by the foreman (and prepared in advance) so that the lecturer can mark the model based on the information provided to the students.

It is useful if the module lecturer is not the factory foreman. The first year this assessment ran the lecturer was the foreman and the students appeared to be reluctant to get assignment advice from him as the lecturer. Also the lecturer felt a bit schizophrenic. Since then we have been fortunate to persuade others (recently Andrew Greasley and Doug Love) to role-play the foreman.

Dr Duncan Shaw
D.A.Shaw@aston.ac.uk
Operations and Information Management Group
Example used with undergraduate students
BN3324: Simulation

USING QUICK CHECKS QUESTIONS TO ENHANCE STUDENTS' LEARNING OF MANAGEMENT ACCOUNTING

OMNEYA ABD-ELSALAM

Introduction and context

I teach Introduction to Management Accounting to first year Single Honours students and Management Accounting to second year Combined Honours students. Both modules are taught to students from a wide range of degrees and are attended by students from diverse backgrounds. As a consequence, their need to receive a useful and regular feedback on their learning is strong. It is commonly known that it is difficult to accommodate the abilities of a very large and diverse group of students.

Accounting is not particularly a popular subject among first year students! In addition, first year accounting is an area where students are required to demonstrate understanding of specific concepts and processes. Given the large number of students and the layout of the lecture theatre, it is not possible to divide them into discussion groups. It is, therefore, commonly suggested that students adopt a surface learning approach in lectures.

There has been a lot of research proving that 'lecturing' does not necessarily cause learning to happen effectively. Learning is a social activity according to constructivist theories of learning, therefore, learners in large classes need opportunities to situate their learning in relation to real life and share their learning process with others. I, therefore, decided to make lectures less boring and more interactive by breaking the two hours into smaller sections and the frequent use of real business Quick Check Questions (QCQs).

Quick Check Questions

Learning objectives of the lecture are outlined first. Then each section starts with a new concept or formula followed by a number of hands- on quick check questions. Students are encouraged to discuss each question with the person next to them which gives me a break! It also gives them a chance to talk about anything, not necessarily the question! I then ask for volunteers to explain the answer before a model answer is presented to them.

The QCQs help students to be actively engaged learners rather than passive recipients of information and to break down the lectures into manageable intervals, which conform to the learning curve theory. Students can assess their understanding regularly throughout the lecture and get feedback when a model answer is presented afterwards. The QCQs are similar to exam styles which also attracts the students' attention! The QCQs are actual business and management accounting questions which give the students the sense of real life management accounting practices. It also helps students to appreciate and reflect on what they have learned so far.

What is different?

In lectures students are normally introduced to new concepts or formulas. Subsequently they are presented with a variety of examples from which they can progress to completing related exercises. The innovation of the QCQs technique is that, after an explanation of the new concept or formula, students are introduced to the QCQ and are asked to apply the new concept/ formula themselves. Students are encouraged to think, discuss and present their answers before a final model answer is offered by me.

QCQs help students to get used to conveying ideas and new concepts and provide regular opportunities for students to check their learning and understandings. The peer discussions give the students a chance to verbally explain concepts and provide a second chance to learn from each other.

The QCQs are short style and can be considered "fun" exercises. Even if the topic is boring, interesting scenarios or quotations are used in these questions. This helps to capture students' interest and attention for a longer period of time and enhance the quality of their learning.

Having student discussions in classes is not new but the innovation is that the QCQs are used with 200 students in a lecture theatre layout, where students are not facing one another. In addition, QCQs are introduced before practicing examples and are used very frequently during the lecture. In addition, QCQs help students get away from considering lecturers the sole source of knowledge and understanding. 'Student to student' feedback is used as an important part of the learning process.

Outcome

Students are encouraged to learn by promoting a deeper and broader understanding of the subject matter. Ideas are further clarified by stimulating discussion and developing interpersonal and communication skills. Students get feedback on a regular basis which enables them to take charge of their own learning and get trained to be independent learners.

On the other hand, I have found that getting students' attention back after the quick check break was sometimes a bit difficult. Also, in some cases I didn't get volunteers to explain the answer after the quick check break. In addition, the QCQs increased the size of the handout significantly. Students frequently complained about printing costs!

According to students' feedback, it was, however, felt that the QCQs turn learning into an enjoyable and productive experience. QCQs allow identification of the students' strengths and weaknesses, as well as the opportunity to work and learn from mistakes made. Interaction in lectures has markedly improved student success in the subject.

Dr. Omneya Abd-Elsalam
O.H.Abd-elsalam@aston.ac.uk
Finance, Accounting and Law Group
Example used with undergraduate students
BF1114: Introduction to Management Accounting
BF2262: Management Accounting

TYING ASSESSMENT TO THE ABILITY OF STUDENTS TO ASK QUESTIONS DURING PRESENTATIONS HAD A POSITIVE IMPACT ON CLASS PARTICIPATION.

TIM WATTS

The Background

I inherited the BS3355 "Innovation" module from Fred Steward when he left last year. When I started out, I was intrigued by the methods that Fred had chosen to assess the module in previous years. Part of the assessment involved the compilation and presentation of case studies conducted by the students in small groups. This in itself was nothing unusual, however, he had also chosen to encourage the other students to ask questions at the end of the presentations by allocating responsibility to set students each week and attaching a small percentage mark to their ability to compose searching and thoughtful questions.

On first hearing this, my initial reaction was that I was uncertain how I would mark the questions, as it was immediately apparent that there would be a strong subjective element to the process. In the spirit of learning about a new method, however, I decided to keep the assessment Fred had adopted.

The Approach

The presentations were spread throughout the year on a rolling week-by-week basis. As part of their assessment the students were required to relate ideas from their case study to a minimum of three theories or concepts from the module, and to reflect on the associated management process. Within each group, the students were given the freedom to choose the subjects for their case studies themselves. They could choose to look at innovation within an individual company, or to focus on a specific product, process or service that was being introduced to the marketplace. This additional element of free choice was a slight concern, as in theory the ability of the students to ask questions each week was tied to the quality of the presentations. It is not easy to ask poignant questions about a presentation if the presenters are incoherent or poorly prepared. In practice, however, this did not present a major obstacle.

Examples of cases chosen this year include the contraceptive patch (Ortho Evra), SmartWater (Europe Ltd), laser eye correction (Laservision), cosmetic treatments (Botox), and online betting services (Betfair).

Most of my teaching experience prior to running this module has been with post-graduate MBA students who are generally far from cautious when it comes to participating in class. In the first few weeks teaching these final year undergraduates it was apparent that I had to work considerably harder to encourage participation. Some questions were forthcoming, but there was significantly less interaction from students during my lectures than I had experienced with the MBAs. Undergraduates by their nature are more willing to accept ideas thrown at them, and less willing openly to question the lecturer. Therefore any approach which encourages active participation in class should be carefully considered.

The first few presentations were conducted without a formal assessed question and answer session. This was arranged to alert the students as to what was expected from the presentations themselves, and removed any unnecessary pressure from those groups who volunteered to go first.

At the end of each subsequent presentation I gave the opportunity for members of the class first to ask any questions of clarification, and then immediately moved on to the assessment questions. Each student was tasked with asking two questions of the presenting students, based on the material that they had been exposed to during the module. Typically four or five students would ask questions each week leading to a pool of around ten questions per session. On reflection this was probably too many, and could result in a protracted question and answer session, as some students inevitably asked long winded or double-barreled questions in the hope of impressing the lecturer!

The order of questioning was staggered so as not unfairly to disadvantage individual students. I recorded the questions themselves in shorthand and wrote an initial mark based on my first impression. At the end of the session I then reviewed my notes and formulated a more considered opinion. Given my inexperience of this method, I chose to withhold the marks initially from the students so that I could crosscheck those I had allocated previously to ensure consistency. In future I believe this would be less critical.

Individual marks were based upon the ability of the students to compose thoughtful and provocative questions that related to theoretical concepts within the module. In practice, they were also judged according to the clarity with which they were expressed, and their appropriateness to the specific case being considered. As the combined mark for these two questions comprised only 5% of the students' final mark, I was relatively unconcerned about the subjective element of the process. The percentage, however, was sufficiently high to incentivise the students to contribute in class. Whereas in the initial sessions students had been reticent to volunteer questions, the additional pressure provided by the more formal atmosphere induced students to provide higher quality, more considered input to class.

Conclusion

Overall I felt the process was worthwhile and encouraged the students to open up considerably. It is certainly worth consideration as a method on undergraduate modules, or on any course where the lecturer is conscious of weak participation. The upshot of this process was that I found the quality of participation improved significantly.

The objective of assessment is not simply to enable an accurate marking scheme, but should where possible form part of the learning process, encouraging students to reflect broadly on their learning experience.

Tim Watts
T.P.Watts@aston.ac.uk
Strategic Management Group
Example used with undergraduate students
BS3355: Innovation

'GOING LIVE': USING THE INTERNET IN REAL TIME DURING LECTURES

NICK LEE

The Context:

During the course of the module BMM736 E-Business Research, a number of research methods are given in lectures relating to the internet. These include how to search on the internet for research papers, how to search for secondary data, or how to collect competitive intelligence. The only way to give students a real feel for this is to demonstrate these activities for the students 'live' so to speak. Furthermore, there are a number of key issues in M736 (and the MSc in E-Business as a whole) relating to how the internet has revolutionised the relationship between the firm and the consumer as well. Again, the most effective way of demonstrating such concepts is by using the internet during the lecture.

The Approach

Example 1 - Using Proquest:

One of the key skills necessary for students to conduct a good piece of research (for example the dissertation) is the ability to locate and synthesise existing research on their topic. This skill is also directly relevant to BMM736 itself since the assessment is a 'research proposal' which is aimed at preparing them for the dissertation. Unfortunately, due to years of experience (as a student myself in part), it has become clear to me that finding existing research, and especially academic journals, is a key skill most students lack. Firstly, students do not have a 'feel' for what academic literature is and secondly, they have no practical knowledge of how to go about finding academic articles. Using a laptop connected to the internet during the lecture provides a first step towards solving both these problems.

During the lecture (which is done using PowerPoint projections from the laptop), a number of key points regarding academic literature versus more 'popular-press' or 'textbook' literature are introduced, for example, the idea of peer-reviewing. Subsequent to this, students are given a list of databases available from the Aston Library which enable them to search for academic literature. As an introduction to this process, I then click on a hyperlink inserted into the PowerPoint presentation which points to the Aston Library homepage, which automatically opens a browser window. I then click through the steps to reach Proquest, demonstrating the basic process of how to get online with the database – this is the first hurdle students have to overcome, and I have found many never actually clear it without being shown specifically. I then perform a topic search using whatever topic comes to hand from the students (such as 'CRM Systems'). Key points to demonstrate here are the benefit of narrowly defining your search terms (I usually also do a search with the term 'web advertising' to demonstrate how useless that is), and also searching in different parts of the document (e.g. title, subject, citation, full text, publication, author etc.) Subsequent to this I am also able to integrate demonstrations of 'academic' literature characteristics versus 'popular-press' articles, since Proquest includes both.

This section of the lecture can take up to 40 minutes as the discussion moves from practical methods of searching for topics towards an approach to 'judging' literature, and giving the students a 'feel' for what is academic and what is not. Subsequently, the learning process is more fully realised by use of a directed tutorial immediately following the lecture, where students are given a topic to search for themselves, and let loose in a computer lab to try it out for themselves.

Example 2 - Nike ID:

One of the key points to much of what is considered 'special' about the E-Business environment is what has been called 'the reversal of production and consumption'. By this it is meant that consumers are now able to become involved in the actual production of goods that they wish to buy. This is a major power shift from the standard theory that producers 'make' goods, and then sell them to passive consumers. An excellent demonstration of this at a consumer level is the 'Nike' website. Here, consumers are actually able to customise their shoes in a number of ways, and then the shoes are made to order by the Nike factory. This demonstration is particularly appropriate to a classroom context since it is easy to understand and relates directly to products which students may have previously seen as standardised in shops.

Again, during the lecture, I click on a hyperlink embedded in PowerPoint, which takes me to the relevant site. Once the system has loaded up, we are able to design a custom made pair of shoes to the specifications of the class, including colours, soles, and even a name put on them (e.g. BMM736 2003 or the like) which is stitched at the factory. Of course we don't actually purchase the shoes…!

This directly demonstrates the point I was trying to make about consumers now having far greater power in the production and specification of goods, and enables students to come up with many more examples of the process. It is also fun!

Example 3 - Spying on the CIA:

One of the major advantages of using the internet is the ability to collect masses of publicly available data very easily, which may previously only have been available at centralised information points (e.g. public or academic libraries). This can speed the process of tasks like market research immensely. Some examples of this include census data, government web sites, company reports and the like. One particularly interesting site is the CIA World Factbook.

During the lecture I spend considerable time discussing the idea of collecting publicly available data in order to help specify issues such as population trends, market size, and the like. Then, clicking on a hyperlink brings up the CIA World Factbook website as an example of how easy it can be to collect this kind of data. We usually choose a country at random and examine the information that the CIA has collected. Of course I also make the point that this is just the *public* information, and doubtless there is a lot more out there! This is invariably something of an eye-opener for the students. Subsequent to this I will give an example of a company which makes a product (such as 'woolly jumpers' or the like) and wishes to expand into a particular country. We then look at the information on that country to determine whether our product is likely to be successful in that market. Issues we look at include geography and temperature, social classes and income levels, employment, infrastructure and many others. Using this we can gain a pretty good picture of that country in a broad sense, and the likelihood of our product selling well.

This exercise clearly demonstrates the wealth of information available simply by searching the internet. It also allows me to discuss a number of other points. For example, I generally raise the issue of 'trustworthiness' of data, e.g. neutral versus provided by the home government. Timeliness is also an issue – when was this data collected? Finally, it is often a shock to students just how useful this data can be in determining the potential market for a product. The exercise is also supplemented by a tutorial where students are required to take a product and determine its likelihood of success in a particular country by using the internet.

Some Potential Problems:

One of the key problems in this approach is technological. Simply, not all lecture theatres are set up to use the internet live. Hopefully, however, this is changing as time advances. There is a certain ability to download the relevant information and use it when not connected to the internet, but this is less than ideal in most situations, and impossible in others. Other technological problems are concerned with the PC, sometimes they crash, and when browsing the internet this tends to happen more often! Lecturers must be prepared for this as an inevitable part of using the internet, and if not then I would advise against it.

Secondly, it is necessary for the lecturer to prepare in advance the websites that s/he wants to visit. While it is not crucial to insert the links into the PowerPoint presentation, it does tend to make things run smoothly. Having the web browser open already in the background can also help out. It *is* vital, however, to check the links prior to the lecture, the same day if possible. Links often change and go out of date, and there is nothing worse than thinking you are going to a reputable website and instead being directed to one of rather less appropriateness (not that this has happened to me).

Finally, these techniques have tended to be most useful in smaller lectures where the class can get directly involved in choosing what goes on. In larger lectures this involvement would be lost, and perhaps the effectiveness would be lessened.

Dr Nick Lee
N.J.Lee@aston.ac.uk
Marketing Group
Example used with postgraduate students
BMM736: e-Business

USE OF BLACKBOARD™ TO SUPPORT TEACHING

NELSON TANG

Background

Over the last two years I have been learning and experimenting how to use Blackboard™ for improving the communication with my students, reducing the waste in terms of printed lecture notes, and time for students to travel to attend tutorials that could have been conducted on Internet. I need to emphasis that it does not mean that the virtual tutorial approach would be suitable for all the modules and all students. Some of the tutorial exercises have to be conducted in a face to face setting and some students would prefer to discuss and ask questions in a traditional face to face format as well. Blackboard™ would provide staff and students with an alternative way to communicate and to provide the latest information in an effective way.

The number of students studying some of the undergraduate modules is large, it is, therefore, feasible and efficient to put the lecture slides on Blackboard™. This practise was set as the ground rule for all students since day one and they were expected to check their email on a regular basis to receive additional study materials. The lecture slides, past exam papers, tutorial questions and module assignments are available on Blackboard™ to be retrieved by the students and remained on Blackboard™ for future reference.

Examples of using Blackboard™

There are some differences in the way I have I used Blackboard™ to support my undergraduate and postgraduate teaching. The examples of how I used Blackboard™ in the different modules are explained in this short article and I welcome discussions with colleagues.

Undergraduate

Module: BN 2231 Decision Support System
(Virtual Tutorial for non hands-on exercise)

Each week a tutorial or quiz was uploaded to Blackboard™ with a submission deadline, and students had to respond within the time given. This practise is more suitable for qualitative type questions. Students have the choice to do the lab tutorial (face to face approach) or submit their work to Blackboard™ before the deadline. This arrangement provided flexibility, as some students prefer to do assignments in the lab while others in their own time. Marks from the quizzes were given via Blackboard™.

Several good answers (with the permission of the students) were chosen to be shared and referred to by other students. The students' names for these answers were made known and this approach encouraged them to do the assignment. As an incentive for their effort, ten students with the highest mark were awarded a place on an industrial visit at the end of the term.

Postgraduate

Module: BNM 735 and BNM 912 Electronic Business Strategy

Since the duration for the postgraduate class was three hours, the lecture was carried out in 1.5 hours followed by a group task. Students were required to submit the group work onto Blackboard™ via the digital drop box. A few groups were selected to present their work in the last 30 minutes of the class. All the presentations were uploaded on Blackboard™ to be shared and referred by other students with the permission of the owner. This approach encouraged peer discussion among students and the use of the digital drop box avoided the problems such as incompatible disks, inappropriate file size or virus infections.

Dissertation Supervision

The group page on Blackboard™ is a good tool to supervise dissertations. A dedicated group page was set up on Blackboard™ and this group page could only be assessed by the supervisor and the relevant student. We used this group page as a single point of contact for any enquiries and feedback. The activities of the submission of draft chapters for my comments and my responses to the student were all recorded in this group page. This has become a journal to monitor the dissertation progress and for future reference.

In memory of our friend and colleague Dr Nelson Tang✠,
who died on 1 November 2003
Operations and Information Management Group
Example used with undergraduate students
BN2231: Decision Support Systems
and with postgraduate students
BNM735: Electronic Business
BNM912: e-Business Strategy

SHARING OF PRESENTATIONS USING BLACKBOARD

JOHN S EDWARDS

The Background

In module BN3368 Business Design, the objectives include: *'Be aware of some major successes in business design/business process re-engineering projects'*.

To help achieve this, students are required to make an assessed presentation in class on a real-life example of business design. This may be obtained from the literature, or from their own experience (for example the placement year). This gives each student the chance to study one example in some depth. However, one of the fundamental aspects of the theory of business design is that there is no "one best way" to implement it; each organisation must find the most effective way to carry out a business design project to its particular needs. Tracking down many examples can be problematic for the students, especially when some descriptions in the literature are little more than thinly disguised advertisements for consultancy services.

The Approach

Students soon adopted the use of Powerpoint for their presentations, without being required to do so. As far back as 1999/2000, only one presentation did not use Powerpoint, and all but one of the presentations in the three succeeding years have done so. This made it technologically possible to share presentations with other students, thereby exposing them to the details of far more examples than they could research individually. The advent of Blackboard™ has made this process of sharing much easier to manage, and therefore quicker.

Students have access to presentations from previous years from the start of the module, and access to other presentations from their own year later in the module. There are two important elements in the way this is done.

1. Sharing is voluntary, as far as the students are concerned. At first, only a few were willing to do this, but last year it was more than 40%. The best students usually want to share their work, and where the example concerned arose from the placement year, this gives the other students access to an "insider's" view and one that would not normally be available in the literature.
2. No indication is given of what mark the presentations received. All presentations that students are willing to have put up on Blackboard™ will be made available, unless there are insuperable technical problems, as occurred in just one case, or confidentiality issues, as occurred in another.

The Outcome

Students thus receive general help in preparing their own presentations, in that they can see the sort of material that has been presented before. However, they are crucially left to their own judgement as to which presentations are the best. Thus students can learn from their predecessors' work, but direct copying is not possible, since a requirement of all presentations is to declare the sources used, and it is very easy to compare two Powerpoint files. As a result, we have now accumulated an "archive" of dozens of Powerpoint presentations that students may access. It was evident from the examination scripts in 2002/03 that students are making good use of others' presentations.

Professor John Edwards
J.S.Edwards@aston.ac.uk
Operations and Information Management Group
Example used with undergraduate students
BN3368: Business Design

USE OF FORUMS AND QUIZZES WITHIN BLACKBOARD™ TO PROVIDE EXTRA HELP AND FEEDBACK

GARY SIMPSON

Background

It has been noted that one of the difficulties experienced by students as class sizes increase is that they have less individual help and feedback on their progress. This is because of a number of factors:

- Large Lectures tend to be less interactive and provide less opportunity for asking questions both because students feel less able to ask questions and because of difficulties faced by the lecturers in managing more interactive style.
- As class sizes increase the amount of coursework and informal formative assessment tends to be decreased because it can otherwise place an intolerable marking load on the lecturers
- The students feel more anonymous and isolated from the lecturer and so are less likely to seek individual help even when they are aware that they are struggling with a module.

It had been noted that some of these problems were being manifest in students on the BN1105 Quantitative Techniques module which is taken by approximately 700 students each year.

The introduction of discussion forums and quizzes

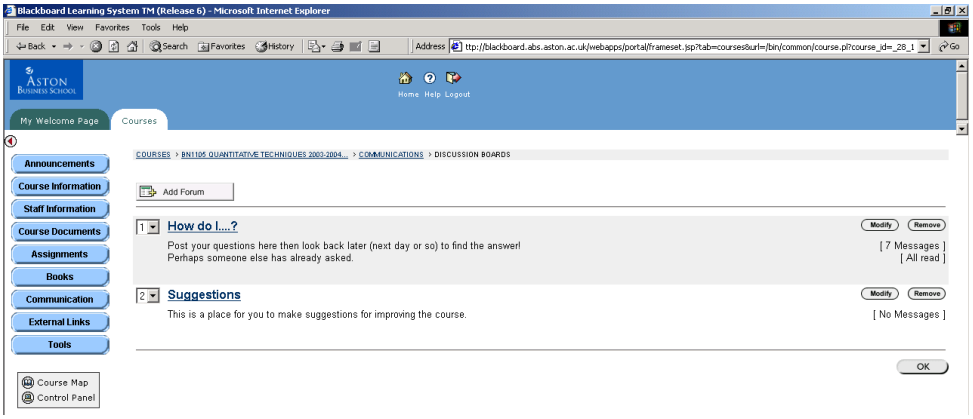
In order to begin to address these difficulties two innovations were introduced using features of Blackboard™ Virtual Learning Environment. These were the introduction of discussion forums and of quizzes. We will describe the use of each of these in turn and discuss indicators of their success or otherwise.

Discussion forums

Blackboard™ provides a mechanism for holding discussion forums, in which staff and students on each module can post messages. These messages can be responded to with further messages to form discussion threads. This mechanism was perceived as an additional way of providing help to students. There are two reasons why this may help in large groups of students:

- The forum allows messages to be posted anonymously, which enables a student to be able to ask a question without embarrassment
- It also allows those students who have the same difficulty to follow the discussion thread, without having to identify themselves. So a single student who actively seeks help provides the learning opportunity to many passive students, this is similar to the situation within a tutorial but without the restriction that only students in the same tutorial group can benefit.
- It should help ensure that consistent responses are given, and avoid the Chinese whispers that can some times develop as advice is passed from student to student.

The figures below show the lecturers view of the two forums that were created (The screen shots are taken from the current version of Blackboard™ rather than during the running of the module).



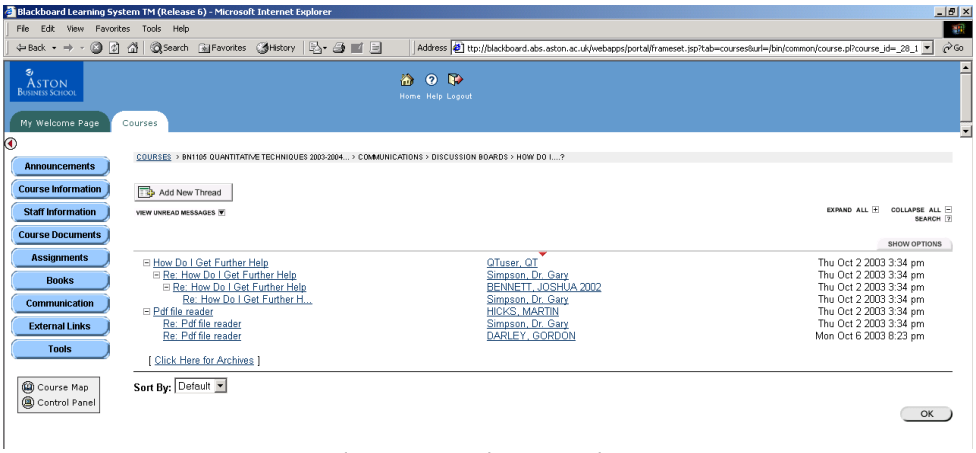


Figure 1: Example Screen Shots

Over the course of the module no suggestions were posted and that forum was unused. Better but restricted use was made of the "How Do I …?" forum. Only a very limited number of questions were posted. As can be seen from the screen shots some of these have been used as seed questions to start debate and use for the following year.

The statistics that Blackboard™ provides demonstrated that the questions and answers posted where read several times by different users. The forums in this module were, however, considerably less successful than those created for the second year module BN2226 Advanced Spreadsheet Systems, where not only did many students post questions and read the answers but some students actively helped other students answering their questions.

It is the author's belief that a forum needs to provide sufficient help, so that enough students will visit it regularly to be successful. This is particularly important with first year students, and it is for that reason that the forum for the new academic year has been seeded with some of the previous year's questions, so that when a student first visits the forum it already appears to be interesting and helpful,

encouraging the student to revisit or more actively participate. It is also suggested that the lecturer may want to "freshen" the forum by posting questions anonymously that have been asked by students in tutorials together with their answers every now and then. The downside of such forums is that they require regular checking by the lecturing staff as they do not automatically inform the lecturer that a new question has been posted.

Quizzes

Blackboard™ also provides a mechanism for assessment using "quizzes". The quizzes were introduced into Quantitative Techniques to provide students with more formative assessment. They were considerably more successful than the discussion forums with the vast majority of students making some use of them. Some students used this only as a mechanism for finding out the answers to the questions and left all the answers blank, thus scoring zero in the quiz but obtaining feedback which provided the answers. If desired this could be limited, as the setting in Blackboard™ can be set so as to force the students to answer the questions and the level of feedback restricted so that the correct answers are not revealed. This would, however, restrict the value of the formative feedback.

The quizzes comprised of multiple choice, fill in the blank and matching questions based on the existing tutorial sheet questions that where given to students. The main overhead in lecturer time is that involved in creation of the quizzes, particularly in thinking how to rephrase the questions so that the answers can be automatically computer marked without substantially changing the level of difficulty of the questions.

Once created the quizzes enable the students to gain feedback. This feedback can simply be the correct answer but the lecturer can also give comments to be given to the student if they answer a question wrongly to provide more detailed help. The lecturer can also monitor which wrong answers are being given by students, and so note common misunderstandings which still need to be addressed.

Some of the students on the Quantitative Techniques module found the quizzes sufficiently helpful to comment to this effect on the student satisfaction questionnaires. It is hoped in the next year to encourage the minority of students who did not make use of this resource to do so by not only using this mechanism to provide formative assessment, but also to form an element of the summative assessment. A further quiz in the same format as the others will be required of the students with the mark achieved in this quiz contributing to the overall module mark. By using the question pool facility of the Blackboard™ system you can generate a different set of questions for each student and hence restrict the potential for plagiarism, although care needs to be taken that all quizzes thus generated are of the same level of difficulty.

Outcome

In short, both interventions were of some use, with the forums having a lower initial setup "cost" but higher maintenance and the quizzes having a higher setup "cost" but low maintenance cost. It is the author's belief that the quizzes will prove more useful for first year modules where the level of understanding is more easily tested with multiple choice and fill in the blank type questions, whereas the forums will be more successful with second and final year students.

Dr Gary Simpson
G.P.M.Simpson@aston.ac.uk
Operations and Information Management Group
Example used with undergraduate students
BN1105: Quantitative Techniques
BN2226: Advanced Spreadsheet Systems

USING ON-LINE QUIZZES

MICHEL J. LESEURE

This note provides some feedback about the use of the Blackboard™ web learning environment for online quizzes.

Context of Use:

The context of use was the first year module BN1135, "Introduction to Operations Management". Characteristics of the module are:

- A "packed programme". The Aston Business School has an "Introduction to Operations Management" that requires 17 contact hours (12 lectures + 5 tutorials) whereas Lancaster University Management School's (for example) equivalent module requires 50 contact hours (35 lectures + 15 tutorials). Given the scope of a module in operations management, teaching it in 17 hours means students learn a lot of ideas in a very short time!
- A "packed classroom". Enrolment for 2002/2003 was around 500 students. This leaves little opportunity for direct interaction during lectures and for the implementation of continuous forms of assessment.
- A "One-Life" assessment: 100% by final examination.

In such a context, a key problem occurs when the lecturer stays on his schedule but students' attention drops off gradually. If students do not put enough effort on keeping up with the class in the early introductory and conceptual sessions, it is likely they will not follow the more technical sessions.

Why use online quizzes?

Online quizzes were introduced to BN1135 for the following purposes:

- To test whether or not online quizzes could be used as a low weighted second form of assessment (e.g. 5% of final grades).
- To provide a mechanism through which students can assess whether or not they master a topic once the lecture is completed (with Blackboard™, it is possible to specify when the assessment is available to students).
- To provide "quantity" feedback to the lecturer: how many students are actually committed enough to log on once a week and attempt the quizzes?
- To provide "quality" feedback to the lecturer: how well are the students doing?

How does it work?

In the Control Panel menu of Blackboard™, the assessment manager menu offers users to add "Quiz/Exam". Blackboard™ is programmed to handle a variety of online assessment: matching, ordering, filling in the blanks, multiple choice, short essays, etc.

Only multiple choices questions were used in the case of BN1135. The process of creating the assessment is straightforward, as Blackboard™ builds the assessment through a clear step by step procedure.

The final screen offers a choice of all the assessment management options:

- Are students allowed multiple attempts?
- Is there a time limit for completing the quiz?
- Do students received feedback? Further explanations if their answer were wrong?
- When should the assessment be made available? Any limit deadlines?

An assessment question appears as follows on Blackboard™:

Question 4	**Multiple Choice**	**(5 points)**
Question:	A company wishes to determine the EOQ for an item that has an annual demand of 2,000 units, a cost per order of £75, and annual carrying cost of £7.50 per unit. What is the EOQ?	
	◉ 73	
	○ 100	
	○ 200 units	
	○ 40,000 units	

An entire quiz (topic 3) is reproduced at the end of this note. The quiz for topic 3 was interesting in that it required students to complete virtual factory tours (linked from Blackboard™) before attempting to answer the questions.

Results and Comments

Initially, students could only complete a quiz once. This led to two problems:

- For a large number of students, there are many network and computer problems which can occur at the time of testing. This results in partially completed quizzes becoming "frozen" by the system, and induces a lot of troubleshooting!
- Many students indicated that they preferred not to take the quiz after the lecture and to save it for their review week.

By popular demand, multiple attempts were allowed. Participation was low during the term, with only a core of 6% of students dutifully completing the quiz every week after the lecture. Usage peaked up significantly before the final examination though!

The quality of answers was varied, from note points to full scores. Students with very low scores tend to lose their motivation quickly and stopped using the system within a few weeks. Students show genuine interest in hearing the previous week score statistics during the lecture.

Overall, the use of online quizzes was positive, although its level of use remains disappointing.

Limitations

- Blackboard™ does not support tables, figures, and links in the question's text. This can be a bit limiting.
- Online quiz cannot be used as an automated, formal assessment.
- When the class is over, the list of users is erased, and their scores go with them. It would be interesting to save the final database of scores and study its correlation with final grades.

Example of an on-line Quiz

COURSES > BN1135.2002-2003.T2 > CONTROL PANEL > ASSESSMENT MANAGER > PREVIEW ASSESSMENT

Preview Assessment

Name: Topic 3 Quiz

Instructions: Multiple Choice Questions NOTE: DO NOT ATTEMPT THIS QUIZ BEFORE YOU HAVE COMPLETED THE FACTORY VISITS (EXTERNAL LINKS)

Question 1		**Multiple Choice**	**(5 points)**
	Question:	Machine shops, printers, bakeries, education (except BN1135...), are examples of which kind of production process? ○ mass production ○ continuous production ○ simplified production ○ batch production	
Question 2		**Multiple Choice**	**(5 points)**
	Question:	The availability of mobile phone fascias means that a specific mobile phone (e.g. Nokia 3310) is: ○ a uniform product ○ a product with a product with a standard base and various finishings ○ a product with modular elements ○ a one-off product	
Question 3		**Multiple Choice**	**(5 points)**
	Question:	Stanley Tools factories are most likely to use which type of production system? ○ engineered to order ○ make to order ○ assemble to order ○ make to stock	
Question 4		**Multiple Choice**	**(5 points)**
	Question:	The BMW factory in California is an example of	

- a project based organisation
- a job shop
- a batch production system
- a mass production system

Question 5 **Multiple Choice** **(5 points)**

Question: The Corbin factory is an example of:

- a project organisation
- a job shop
- a batch production system
- a mass production system

Question 6 **Multiple Choice** **(5 points)**

Question: The Golden Cheese Company of California is an example of

- a job shop
- a batch production system
- a mass production system
- a continuous production system

Question 7 **Multiple Choice** **(5 points)**

Question: A cheese maker

- can only use a continuous production system
- can only use a mass production system
- can only use a job shop
- could be any of the above

Question 8 **Multiple Choice** **(5 points)**

Question: Taylorism was designed to be used

- in job shops
- in mass production systems
- in project teams
- none of the above

Cancel Submit

Dr Michel Leseure
M.Leseure@aston.ac.uk
Operations and Information Management Group
Example used with undergraduate students
BN1135: Introduction to Operations Management

Good Practice Guide in
Learning and Teaching

© Aston Business School 2003

Quality Unit
Aston Business School
Aston University
Birmingham B4 7ET

Tel: +44 (0) 121 359 3611
Email: j.e.green@aston.ac.uk

ISBN: 1 85449 470 8