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Using the Poster as a Learning Tool and a Form of Assessment

1. Introduction

In UK higher education, it has been noted that there is a relatively narrow range of assessment instruments, practices and processes (Race, 2001, p. 8; Brown and Glasner, 1999), focused on unseen written examinations and written essays/reports. In addition, there is little opportunity for the sharing of knowledge and learning across students in the same class when such written reports are used as assessments (whether in groups or individual). In this respect, this teaching cycle explores the use of the poster as a learning tool and as a medium of assessment, specifically as part of a group project to develop and present a poster on a selected topic. Posters can be defined as self contained visual displays of information created either by groups or individuals and can represent an alternative assessable product (Jarvis and Cain, 2003, p. 50).

I became interested in the use of posters after attending a UWA course, entitled “Using Posters to Enhance Student Learning” (by Rod Ashley, November 2005). He suggested that a poster could bring a range of benefits for students, not only towards the development of presentational skills but perhaps more importantly assisting towards a deeper understanding of the topics/content. In a nutshell, I think the poster poses an ‘alternative challenge’ to the learner/student, who has traditionally relied on ‘text only’ to convey his/her ideas.

A poster involves the development of communication skills through text and ‘non-text’ means e.g. pictures, diagrams, flow-charts graphs etc, whilst being constrained to a defined size. Posters are not new to the wider academic community and are already extensively as a medium for the communication of results in academic/professional conferences. They are also used in particular subject areas of higher education e.g. in mathematics (e.g. Berry and Houston, 1995), history (e.g. O’Connell-Killen, 2002) and science/technology (Jarvis and Cain, 2003), but less in humanities or business/management. They provide an opportunity for students to share directly their work and ideas in a non-traditional classroom atmosphere. Finally, as mentioned in Jarvis and Cain (2003, p. 52), the use of posters reduces the risk of plagiarism and simplifies detection of unfair practices. In consideration of the various applications and benefits of the poster in business (e.g. involving areas such marketing and
internal communication), it is perhaps surprising to see the relatively low emphasis within business/management education.

After initial discussions with my mentor and a review of the relevant articles/books, I decided to assess the wider benefits of the poster as a learning tool rather than merely consider its presentational aspects. The following figure displays the key purposes for this teaching cycle:

![Figure 1 – Purposes of the Poster](image)

In terms of outcomes, various authors believe that the poster format provides a more stimulating learning environment for all group members to not only identify the relevant and critical contents of the topics but also how to present/communicate the ideas/knowledge in a summarised and attractive way (Race, 2001, p. 13). In addition, Brown and Knight (1994) argue that the quality of student learning through posters parallels the learning achieved through set essays. Also, the limited space of a poster forces students to prioritise and focuses their effort on key arguments and evidence, key themes, or key conclusions. Posters provide opportunities to emphasise schematic structures for narrative and argument (Jarvis and Cain, p. 51). Finally, as in the case of posters in academic/research conferences, students will be able to showcase, share and interact their output with their fellow students, thereby promoting active learning (Berger, 1998)

2. Context of the Teaching Innovation (Semester 1, Academic Year 2006-2007)

At the time of proposing this teaching cycle, I was planning the teaching of a recently revised module for masters in management students, entitled “Accounting for Managers”. A significant (and new) part of the module relates to management accounting concepts and
practices whilst the initial section focuses on financial accounting aspects. As future managers, the newly introduced topics were the most common aspects they could encounter in their professional activities, and as such, the module’s learning outcomes were aimed at developing the learner’s understanding of these concepts and practices, their related terminologies and their application in numerical/practical situations. For a non-specialist audience, this requires a significant amount of independent learning/reading as well as practical sessions to achieve the key outcomes set for the module. Also, in terms of assessment, 30% of the module marks were assigned to a group project and the remaining to written examinations.

Traditionally, the coursework was solely linked to the financial accounting area - in the form of a financial analysis exercise applied to a company chosen by students - and submitted as a written report. However, with the revised module content, the implication is that the assessment has to address the two major components of the module (i.e. financial as well as management accounting). I saw this as an opportunity to diversify the form of assessment and as a way for students to deepen their understanding of a chosen management accounting practice. In particular, I was mindful of the need for the output to be shared with the whole class. I firstly thought of having a set of formal presentations with hard copies shared to all students. However, from past feedback and experience, I know this may have limited learning usefulness as it is perceived as just another ‘lecture event’ with little true ‘one-on-one’ interaction amongst students. Typically, each presenter rushes through understandably anxious moments - in particular for those who may not have a good command of spoken English – and most of the audience is unwilling to ask questions to avoid embarrassing their peers.

The above has led me to consider the use of the poster as one of the two group tasks for the semester assessment (the first task being required in a traditional written report format).

3. Using the Poster – Implementation/Process

A key element in the implementation of the poster has been on communicating and interacting with students to familiarize them with the implications of what is for them (and myself!) a relatively novel way of assessment. When queried, none of the students had any previous experience in preparing posters. The details were communicated at the beginning of
the semester. Students were asked to form themselves in groups to attempt both tasks (Task A: financial analysis written report and Task B: explaining a management accounting practice using a poster – refer to Appendix 1). Specific references were provided in the document to allow them to explore the issues (content and format) by themselves. A peer assessment mechanism was included to assess the overall contribution of team members for both tasks. In addition, part of the poster assessment (30%) was to be awarded by the other students in the class, with the remaining 70% decided by the lecturer.

Understandably, there was little interest and questions as students initially focused on the first task and related requirements. However, as I introduced the second part of the module (management accounting), I gradually started discussions in class and responded to queries relating to the poster output. In a bid to familiarize students with the poster format, I circulated in class several posters done by previous THE participants from the Staff Development Office. I think this was of great benefit to the students as they could see past ‘models’ from a different context. As done during the UWA course on posters, the students were then asked to brainstorm on the various ‘essential ingredients’ of a ‘successful’ poster and suggest/agree on the assessment criteria to be used. After discussions and negotiations, the agreed captions were on ‘content’, ‘clarity’, ‘presentation’ and ‘use of visual’ and there was a consensus on how the criteria enabled them to agree on which poster was more effective. Overall, this process had been very helpful for the students and me, as it helped towards closing the expectations and communication gap on the role of the poster. Indeed, Jarvis and Cain (2002) are adamant that students should not be left to ‘get on with it’.

During the latter part of the semester, there were more individual contacts with the teams as they each finalised their choice of topic and sought specific clarifications on the poster content/format. They were asked to submit a written abstract a few days before the presentation day. One week before the presentation day (last lecture slot of 2 hours), I informed the students of the specific arrangements relating to the ‘exhibition’. In particular, two designated members of each team stayed by their poster to interact with fellow class members whilst the other two members viewed the other posters in turn. After a set time, the group members will switch roles and carry out the same process – known as a ‘round-robin’ format (O’Connell-Killen, 2002). Each group will then be given some time to discuss and agree on the assessment to be awarded to each poster. During the same time, I and another colleague (acting as a second marker) would be independently viewing the posters and
discussing with the students. Every assessment would be then input into a spreadsheet and the results announced by the end of the session.

4. The Poster Outputs and Assessment

On ‘exhibition’ day, all 13 teams had their posters ready for display. As my colleague and I walked in, we could observe a high level of activity and excitement as each group discovered, and already started to comment on, the output of other teams. O’Connell-Killen (2002, p. 222) provides a vivid description of a similar ‘situation’ when she trialled the poster session. Similarly to what O’Connell-Killen (2002) reported, there was little doubt that the activity captured the student’s attention and energy - which is not usually observed when students are asked to hand in a written report or make a class presentation. Each team was provided with a poster assessment form (Appendix 2) and the students started the ‘round-robin’ routine. The form also included two open-ended questions to gather some qualitative feedback relating to the assessment and process of Task B.

The first noticeable aspect was the diversity in formats, visuals, colours and representations used to explain/describe the concepts. Some examples of poster outputs are provided.
At the same time, pairs of students were observed discussing with the ‘presenters’ of each poster asking for clarifications and explanations on the outputs. This ‘buzz’ in the class was fairly constant during the whole time and also when students were asked to re-group and finalise their poster assessment form.

From my observations, some issues became apparent in terms of the depth and breadth of the content and format. From the interaction with the different teams, there were indications that most teams have encountered difficulties in deciding what needs to be included or not on the poster. Some had indeed given priority to the ‘maximising’ of content and description compared to others. To some extent, this might be linked to the breadth of the topics originally agreed with the various teams. Also, contrary to initial expectations, there was less use of pictures/images presumably because students could not identify/find the ones that could be relevant to illustrate the topic. A more ‘controversial’ explanation could be that some categories of students (i.e. accounting and/or business students) might find it difficult to ‘use’ images or devise ‘visual versions’ of concepts. However, I could not find any specific reference to support this argument.
In terms of final assessment, the lecturers’ assessments (average of marks from second marker and me) ranged from 58% to 74% and there was a very similar assessment of the most deserving posters. Expectedly, the teams provided a significantly upward-biased assessment ranging from 84% to 93%. Interestingly however, they rated best the same three posters that my colleague and I found most deserving. As already concluded in my first teaching cycle, the positive bias in peer assessment is to be expected but there is at least some encouraging evidence of an ‘objective’ discriminating behaviour, whose outcome appears largely consistent with the lecturer’s assessment. In other words, the students did not give 100% to everyone and there was no evidence of inconsistency, suggestive of collusion or favouritism.

5. Evaluation and Reflection

The evaluation and personal reflection are based on observations of the interactions/discussions on the presentation day and an analysis of the issues/and comments mentioned in the individual reflections and in the poster assessment sheets. Firstly, in terms of engaging with the poster exercise, the following comments are mentioned in Panel 1 below:

Example 1 – It was difficult to summarise the information we found and hard to decide on a layout. Every member has a different opinion on the visual side and it was hard to compromise.
Example 2 – We needed more time to discuss and prepare the poster. It was not easy to find the relevant material.
Example 3 – We could not decide whether less information or more information had to be used.
Example 4 – We wanted to include all aspects relating to new costing systems but we think it was too much for us to include in the poster. But it is more fun to do than Task A.
Example 5 – For the poster, team work especially meant an open mindset and acceptance as everyone had a personal view on how it should look. It has meant everyone had to give way a little so that the poster was different to how it was originally perceived.
Example 6 – It has been difficult to design a poster on such scale and for such a topic but it was a motivating exercise.
Example 7 – We enjoyed this task and learned a lot out of it. Problems most come from finding information.

Panel 1 – Comments on the Poster Exercise

To some extent, the above comments reflect an ambivalence and uncertainty of learners when confronted to a new type and form of assessment. It also demonstrates that the exercise was not merely viewed as a ‘presentational’ one and it provided an opportunity for students (particularly in a team context) to interact, discuss and negotiate on all aspects of the task. As mentioned in Jarvis and Cain (2002, p. 54), posters require selectivity and reflection because
students will invariably be confronted to considerable volumes of data and analysis. At the same time however, they generally displayed a motivation and curiosity about the process in comparison to the first task, which was viewed as just ‘another essay’.

Based on my previous experiences with peer assessment, I see the involvement of the students in the assessment of the posters as being an important aspect of the learning and as a way to communicate that poster outputs were not just meant for the lecturer (such as written essays, or presentations, where speakers typically only stare at the lecturer). Indeed, as mentioned in Jarvis and Cain (2002), posters are designed to be public objects and in some way, there may have been some subtle peer pressure for them to work to an acceptable standard. Hence, it would have appeared almost illogical not to involve the audience in the assessment process - as long as sufficient guidance is given in relation to criteria and that the lecturer assesses any instance of biased marking.

Panel 2 below provides some reflections on the peer assessment stage. Overall, there was little resistance to the policy of peer assessment. In my previous use of peer assessment, I had stressed on its confidential nature, thereby making students more comfortable with the activity. They would have some time to think about the participation of their team member in private and then communicate their assessment directly to me. In this case, the process was more visible and tangible with each team openly displaying its work, thoughts and efforts (or the lack thereof). The assessments – which had to be discussed within each group - were immediately incorporated in the results and announced at the end of the lecture, with token prizes offered to the best three posters. Hence, most of the comments below display some unease with the more transparent nature of the assessment process.

Example 1 – It was hard to mark the posters when knowing personally so many people in the groups.
Example 2 – It would be better if we could mark them without the other groups knowing about the mark.
Example 3 – It is not easy to assess all of the groups.
Example 4 – Some of the groups could have done better in terms of providing more charts and pictures

Panel 2 – Comments on the Poster Exercise

In conclusion, I have looked at this exercise as a pilot attempt towards diversifying the assessment portfolio for students and at providing an environment conducive for peer-to-peer learning and interactions. I believe the poster has been largely welcomed amongst the business/management students, who are usually assessed via the traditional forms of learning activities (group/individual essays or presentations). I was hoping to gather more evidence on
the differences in experiences in relation to Task A (a written essay) and this has not been too forthcoming in spite of a specific question asked to students in the assessment form. In other words, I should have been more focused in collecting this relevant feedback.

Based on the feedback and poster output, I think the poster exercise has the potential to become a more holistic learning activity for both undergraduate and postgraduate business/management students, encompassing elements of critical analysis (deciding what is relevant, important etc), knowledge and understanding (using textual as well as non-textual material) and a raft of transferable skills (creativity in presentation, negotiation/compromise, non-verbal communication, peer assessment, team work). Much is to be done to fine-tune this learning opportunity and I intend to re-attempt the use of posters in the same cohort of students with the following aspects borne in mind:

(i) More time and preparation set to familiarize students with the topics and form of presentation
(ii) A much more focused and defined list of topics, to encourage more analysis and depth in the content presented, rather than being overtly a descriptive content.
(iii) Peer assessment – retain the process but allowing a ‘pause’ for students to reflect on the posters, before they formally submit their assessments.
(iv) In relation to the above, the posters could be displayed publicly for a longer period in the department. Eventually, the poster exhibition could also be more formally organized as a ‘mini-conference’ with students being able to exhibit and explain their presentations to a wider university audience.
(v) Collect more feedback (e.g. a progress report) on how the students are actually cooperating and working on the posters.
6. References:


Brown, S. and Glasner, A. (eds.) (1999) *Assessment Matters in Higher Education* -


APPENDIX 1 – DETAILS OF POSTER ASSIGNMENT

TASK B (40 MARKS)

1. Learning Outcomes

By the end of Task B, students should be able to:

- Explain a particular management accounting practice and assess its actual usefulness/relevance with regards to a particular context e.g. an organization, sector, country or any other valid context.
- Present the issues and findings/interpretations succinctly and attractively.

2. What is Task B about?

The output of Task B is a poster, to be exhibited in class on Monday 11th December 2006 (1.00 pm). A one-page abstract must be emailed to the lecturer by Wednesday 6th December (3pm) describing the final topic.

Each group must select one particular cost/management accounting practice and explain/argue its usefulness and relevance in a particular context. This can be based on a secondary source - the findings from published documents (e.g. accounting journals, textbooks) or from a primary source e.g. the group carries out its own research in a company, sector, organization or country. A mere ‘textbook’ explanation of the techniques or their assumed advantages will not be considered sufficient for a pass mark. There must be some evidence of analysis and evaluation. The intended topic MUST be agreed in advance with the lecturer.

One important expectation for a poster format is the ability to communicate the information in a visual and interesting way, in a way which is understandable to a non-specialist audience, with an emphasis on key aspects whilst avoiding too much text.

Plagiarism - Your attention is drawn to the plagiarism rules as detailed on the School’s website (http://www.aber.ac.uk/smba/english_ver/students/current_students/plagiarism/plagWarn.shtml). Posters must also include references.

4. Assessment Criteria (40 Marks)

The full assessment criteria will be discussed with the class. The lecturer’s assessment of the work will represent 70% of the task’s assessment. The remaining 30% will be awarded by the class.

5. Selection of Topics

If you have any problems in this respect, please contact the lecturer as soon as possible. You may also want to refer to the various recommended textbooks and the following resources to identify a possible topic. Journals such as Management Accounting Research, Journal of Accountancy, International Journal of Accounting, British Accounting Review, Harvard Business Review, Strategic Management Journal may be useful starting points.

DEADLINE FOR CONFIRMING YOUR SELECTED TOPIC FOR THE ASSIGNMENT (MONDAY NOVEMBER 20, 2006 – IN CLASS OR BY EMAIL).
6. Printing Arrangements

The size of the poster must be of size A0 (841 mm x 1189 mm).

A free print-out/laminating service has been arranged with the Geography and Earth Sciences Department (Mr Geraint Hughes, Ext. 2607) but the poster will need to be sent to him by Wednesday 6th December 2006 by email, as a Powerpoint or Adobe Acrobat (pdf) file. You will then need to collect the poster on Monday 11th December before the scheduled class.

If you are unable to meet this date, then the print delivery may not be guaranteed for Monday 11th December and you may have to look for alternative private arrangements.

7. What is a poster about?

Posters are widely used as a medium for the communication of results by professionals at conferences and by students to their peers. In higher education, they provide an opportunity for students to share directly their work and ideas in a non-traditional classroom atmosphere.

A poster also involves the development of communication skills through ‘non-text’ means e.g. pictures, diagrams, flow-charts graphs etc, whilst being constrained to a defined size.

You may wish to refer to the following websites/resources (templates etc) to help you with your work:

http://www.ncsu.edu/project/posters/IndexStart.html

http://www.postersession.com/

http://keyskills.cant.ac.uk/communication/posters/index.htm

http://www.ed.napier.ac.uk/staffconference/june2003/posters.htm


8. Peer Assessment for Tasks A and B.

Given that both tasks involve group participation, members will be asked to decide how to share the overall marks achieved for Tasks A and Tasks B. In addition, the group will be asked to submit a brief reflection and feedback on the process.

The group is strongly advised to maintain an attendance and progress log, as means to ascertain the participation of all members in the group.

There will be a ‘best poster’ prize........
APPENDIX 2 – DETAILS OF POSTER ASSESSMENT
ACCOUNTING FOR MANAGERS
POSTER ASSESSMENT FORM (PER GROUP)

GROUP NAME:

<table>
<thead>
<tr>
<th>Lead Name</th>
<th>TASK B Topic</th>
<th>Content (40)</th>
<th>Clarity (20)</th>
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*Content is Relevant and Informative (References are provided) 40%
Clarity, Concise and Structured (no jargon) 20%
Presentation – Layout, Interesting, Eye-Catching 20%
Use of Visual Elements (Non Text) rather than relying on text 20%

1. As a group, please provide your comments on the poster assessment process i.e. was it easy to assess? What difficulties did you encounter in deciding on the best poster?

2. As a group, provide your comments on the poster assignment itself. Was it easy to do? What difficulties did you encounter in preparing one? How does it compare to the first task (Task A)?

Signature (on behalf of the group):