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Impact of One Minute Paper (OMP) on Learning: Reflections from a Teaching Cycle in Role and Practice of Audit

Teaching Cycle 3

2007/08

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1. Introduction

The One-Minute Paper (aMP) is regarded as an important tool for addressing some key issues within higher education. It has been recognised as one of the most often used technique and single pedagogical innovation in higher education by college teachers (Light, 1990, 1992). It is believed that aMP would enhance the student interactions in lectures and assess promptly the effectiveness of teaching and learning methods on student understanding (Pennington and O'Neil, 1994). aMP is normally assigned at the end of a class, and which requires each student to briefly write down answers to one or two straight forward open-ended questions, e.g. their understanding of a concept? (Stead, 2005).

In particular, the aMP can be used as an effective feedback tool, when the trainers are managing larger groups of students with interdisciplinary backgrounds (e.g. different degree schemes). The fact is that in larger groups the potential for interactions in a lecture session is quite limited both in time and in scope. However, Angelo (1991) and Cross and Angelo (1993) argued the aMP can be introduced in both small seminars or in large lectures. Also it can be used in first year courses and upper year courses. In different point view, the aMP is considered a useful tool to encourage the participation and involvement of less interactive students and provide a credible alternative to the usual/conventional feedback mechanisms such as questionnaires which are often time-consuming and biased. Also, the modest, relatively simple and low-tech features of MOP can improve students’ learning and active participation in the classes (Wilson, 1986; Cross and Angelo 1988, 1993; Light 1990, 1992; Bateman and Roberts 1992a, 1992b).

Considering the above theoretical context and understanding, this teaching cycle I will focus critically on two questions: (1) how aMP operate in a small group environment? (2) What impact aMP can have on the audience of surface learners? I have chosen the Role and Practice of Audit as the particular module in attention. This module is being run over two semesters and considered as a module suitable for small number of accounting specialists. As By the time I chosen this module, I have had enough experience and evidence on the conservative behaviour of this specialist group of students (total of 28). Even though, they found to be enthusiastic learners, they rarely contributed to the class questions and responded to feedback requests. So, I thought aMP may provide a better platform to encourage this particular group to be more interactive and to
assess effectiveness of my teaching and learning methods on student understanding.

The remaining sections of this 'teaching note' are organised as follows. In the first section I will describe briefly on the current scholarship on the issue and this is followed by an introduction on the context of this teaching innovation. Then, in the next section, I will explain on how this teaching cycle is being implemented and the overall evaluations and reflections are presented at the final section.

2. Scholarship on the issue

Stead (2005, p. 119) in his review of one minute paper explains two potential question to be raised at the end of a class and which requires each student to briefly write down answers: first, they are supposed to answer what was the most important thing they learned in that particular session, second they are required to write down on the questions unanswered by the lecturer during the discussion. Typically, these answers are expected to be written down in half a paper and in few words. Those who favour on OMP argue that the OMP has the ability of enhancing student interactions in lectures and provide prompt assessment on the effectiveness of teaching and learning methods used by the lecturer (Weaver, 1986; Pennington and O'Neil, 1994; Almer et al., 1998). In fact as a form of classroom research OMP collect information from students to learn more about how they learn, and how they are responding to particular approaches of teaching (Angelo, 1991). As Angelo (1991) argues the OMP can be used in variety of ways, for example, to get the feedback during the lectures, at the end of end of the lecture, and in a course comprising lectures and tutorials.

Alternatively, there are several different versions of OMP can be found in the literature. For example, some use the concept 'Muddiest Point' to get the student feedback after a lecture (Mosteller, 1989). It is a as an adaptation of the OMP and considered as a particularly useful too in gauging on how students understand the particular lecture materials (Cross and Angelo, 1988, 1993; Angelo, 1991). For example, after his/her lecture a lecturer may ask students that what was the 'muddiest point' in his/her lecture. Similar to the MOP the Muddiest Point can be helpful for the educators to inform their planning for the future classes. It may also reveal any advance warning of issues that may be explored by students in the forthcoming tutorials (Angelo, 1991).

Even, within the accounting and economics education literature both the OMP and Muddiest Point are being credited as a popular practice (e.g. Cross and Angelo, 1993). Thus, there are credited with having popularised the practice (Stead, 2005, p. 119) and within the accounting and economics education literature, there appears to be empirical evidence in support of this practice (e.g. Almer et al. 1998; Chizmar and Ostrosky, 1998). Students also responded positively to the use of the OMP (Weaver and Cotrell, 1985) but not necessarily for every lecture (Wilson, 1986).
On the other hand, Stead (2005) found very low levels of implementation when he surveyed a sample of economics lecturers. Although nearly half of the respondents did not use the aMP simply because they had never heard of it before, a second reason for non-use was the time demands it would put on the lecturer to analyse responses from every individual in the class. This was also one of my main concerns and I therefore opted for a sampling approach to enable a prompt analysis and response when considering the context of this teaching innovation.

2. Context of the Teaching Innovation

At the time of proposing this teaching cycle experiment, I had already completed two years of full academic year of teaching in the School of Management and Business, University of Aberystwyth and acquired a plenty of experiences on coordinating the Modules at both undergraduate and postgraduate level. During this period, one of the problems I encountered was the poor Lecturer/learner interactions prevailed within the University learning environments. Even though, the lecture notes and recommended reading were supplied in advance via Blackboard, there was not evidence that the students were preparing themselves for the lecture discussions and in-class exercises in active manner. Also, it was noticed that opinion leaders (students who clearly had some prior knowledge and who were also able to speak quite confidently) express their views regularly in the classes, with others remained tight-lipped. Therefore, the feedback I obtained from this small number of opinion leaders reflected biased interpretations. However, it was true that the tutorial/seminar sessions were relatively less biased but the limited available time made me difficult to respond adequately.

This situation encouraged me to experiment alternative techniques such as aMP to promote student feedback and in particular to assess the effectiveness of student learning. The Undergraduate Level 2/3, Role and Practice of Audit module which provided the context of the teaching cycle action experiment was run over two semesters, consisting of 20 lectures and 6 tutorials. I was appointed as the Coordinator for Module in the 2007/08 and asked to mange supplementary seminars by my self along with the lectures. It was considered as a core module of the Accounting and Finance degree programme and the two first year's (Level 1) Modules: Management Accounting 1 and Financial Accounting 1 were considered as it its pre-requisites. The objective of this module was to provide students with a critical introduction to the theory, institutional framework and practice of modern corporate and public sector auditing. By the end of this module students were expected demonstrate:

- knowledge and understanding of the economic underpinnings of audit in the private sector
- knowledge and understanding of the nature and role of audit in the public sector
- knowledge and understanding of the legal, professional and social environment of audit
knowledge of the regulatory framework within which audit takes place and a critical understanding of the current problems facing auditing and those responsible for its regulation
knowledge and understanding of extensions of the scope of audit to include environmental and social reporting
knowledge and understanding of the legal liability framework within which auditors work and the interaction between this and competition in the market for audit services
knowledge and understanding of current issues in auditing, e.g. as to independence, the provision of non-audit services

The module was assessed by means of a three hour unseen examination (75% weighting) and a coursework essay (25% weighting).

3. Teachings cycle plan

This particular teaching cycle consisted of two main steps: first, giving brief instructions of the process to the calls in the first day of the lectures, and second, circulating a one-page OMP (with two questions) to the whole class (28 OMPs) (see the Annex 1). The following were the two questions included in the OMP: 1. what is the big point you learned in class today? 2. what is the main unanswered question you leave class with today?" (also see Cross, 2005). Prior to answering the OAP questions the students were given the opportunity to have 5 minutes interactive discussion with their peers sitting next them. Due to the administration difficulties such as responding in timely fashion, I decided to conduct only 3 OMP exercises during the semester: (1) immediately at the end of first lecture - Semester 2 (04.02.08), (2) end of the 5th lecture (03.03.2008), and (3) end of the final lecture of the semester (14.04.08). This I thought would give me timely feedback for continuing improvements and modifications through out the term (for the benefit of current students) and also for designing and modifications for next term (for the benefit of prospective students).

Before implementing the OMP teaching cycle, I had to plan and address further issues of importance. Thus, conducting a through literature review, make a decision of the quality and timeliness of feedback, decide on whether the overall feedback or specific feedback on certain issues, and make the student aware about the expectations/level of answers. After some careful thinking I have set three specific intended outcomes for the students by implementing this OMP teaching cycle: increased flow and timeliness of feedback, enable appropriate corrective measures (particularly to cohort students), and enhance the interactions with the teacher and peers.

Then I decided on the best way of implementing the cycle. I planned the following activities but without any particular order: explain students the key concepts and back-up by examples, ask feedback questions from students on what is learned and what is unanswered, provide students the timely and individually addressed feedbacks, if necessary, provide them formally written, feedback (to more important issues). However, I expected that there would be plenty of room and flexibility for the
continuing modifications along the way, for example modifying the teaching methods/contents based on student complaints, modifying the feedback time if necessary. The OMP was intended to produce two kinds of feedback. First, from the student perspective it was assumed that the student would give feedback to the lecturer about the potential weaknesses in the lecture delivery/discussion points etc. Then, from the lecturer's point of view, it was expected that he would return feedback/responses to students.

Finally, I set some objective criteria to evaluate the success of the teaching cycle, included were the quality and quantity of student responses to open-end questions, the level of student interactions, and the quality of the answers in the end-term assessment. This evaluation of teaching cycle was an important part of my plan as the students had to see and perceive that their responses were being dealt with some respect. Also, it was important to encourage them to provide further meaningful input and in particular it was intended to create a cycle of active listening and learning through the use of this feedback system.

4. Implementation of One-Minute Paper (OMP)

4.1 OMP 1 - At the end of first lecture - Semester 2 (04.02.08)

At this stage I needed the student feedback for the purpose of planning the next class and the modification of other four classes (until the second OMP). The results of the first OMP was quite significant and the total of 20 students who attended this session actively participated in the OMP exercise. As the AC37120 was quite a small class the students had already developed some close contact with the peers and myself. So, it was easier for me to convince them the importance of their feedback for continuous development of the Module. Even though there were some initial hesitations at the beginning as to what the process actually meant, most of the students engaged actively in discussions in the class. After the allotted five minutes of brainstorming discussions most of students submitted their OMP forms when leaving the class, with few others promised to return them to my office.

In the responses to the OMPs submitted in the first lecture meeting of Semester 2, some of students indicated that they were comfortable with the concepts of environmental and social reporting (The Lecture Topic) but were unclear as regards how organisations apply social and environmental costing. For example, a student remarked: "I want to know about environmental costing?" My response to supplying them a related research paper on environmental costing that made available in the blackboard. Other than some initial misconceptions on the use of OMP technique, overall, the majority of student responses reflected that they were quite comfortable with contents of Session 1.

4.2 OMP 2 - At the end of 5th lecture (03.03.2008)

The attendance for this lecture was not quite satisfactory as only 15 students were appeared. However, all of them completed OMPs with a
great interest. In the hour immediately following the lecture, I returned to my office and devoted my time to reading learner responses. I discovered that from five of those who attended in this 5th class had not fully agreed with a particular learning outcome stated in the lecture. Thus, I stated that I would introduce them to the non-audit services in the global context, but my ‘discussion was limited to the contexts of UK and USA. So in the unanswered questions section some of them mentioned that they were comfortable with the concept of non-audit service in UK and USA context but were unclear as regards how it works in other contexts such as in less developed and emerging countries. A student asked: “how do we relate these issues into developing countries?” My response to them was to initiate a discussion on this issue at the subsequent Tutorial class (Tutorial 2) starting at the Week six.

Also there were two other OMPs that stated about the pace of my presentation. I realised that this was something that I struggled with since my first teaching. One student remarked: “please slow down the pace of your presentation”. My answer was then to use to aim to present much less material, structured in a different way. I now have perhaps five or six bullet points per slide and aim to provide a structure for the students to follow rather than necessarily giving a huge amount of detail. I took the view that I would finish early if I got to the end but since the approach seems to have reduced the pace of my delivery this rarely happens. Overall, in this second OMP the student-feedback was more constructive as they are being exposed to the ideas and concepts of OMP for the first time and seem to appreciate my responses which let them solve their problems in subsequent weeks.

4.3 OMP 3 - At the end of final lecture of the semester (14.04.08)

The attendance to this session was quite improved and almost all the registered student were present (26). The comments received for this session was very critical. In terms of the unanswered questions in OMPs, a great number of responses (10) did not understand the case study content (Agency Theory Case - this was available to them via Blackboard), because of the unique academic language used in the case. My response to them was circulating a brief summary of the case facts via Blackboard.

Overall, in the OMPs submitted at the end of lecture five, it was apparent that the students were comfortable with the audit theory and in particular they were clear as regards agency theory was applied into audit context. Most of the students mentioned in the OMP that agency theory approach to audit was the ‘big point’ that they find very interesting. One student remarked: “Agency theory is my big point today. It can be used to explain the auditor's job but it can also be used against the auditors to criticise their job”. My response was to initiate a discussion on the agency theory at the subsequent tutorial class - Tutorial 3 (commencing at Week 9).
4. Evaluation and Reflection

I am happy to find that, consistently throughout the OMP implementation, completion rates for the OMP exceeded 90% and that there was no fall off in completion, suggesting that students of AC31720 found that the tool to be helpful and that there was no significant constraint noticed with its use (Table 1).

Table 1 - AC31720 One Minute Paper Responses (2007/08)

<table>
<thead>
<tr>
<th>OMP Attempt</th>
<th>No of OMP forms completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. At the end of first lecture</td>
<td>20</td>
</tr>
<tr>
<td>- Semester 2 (04.02.08)</td>
<td></td>
</tr>
<tr>
<td>2. At the end of 5th lecture</td>
<td>15</td>
</tr>
<tr>
<td>(03.03.2008)</td>
<td></td>
</tr>
<tr>
<td>3. At the end of final lecture of the semester</td>
<td>26</td>
</tr>
<tr>
<td>(14.04.08)</td>
<td></td>
</tr>
<tr>
<td>Total number of in the course</td>
<td>28</td>
</tr>
</tbody>
</table>

I believe that the use of the OMP in this AC31720 Module have been very informative to my self as the trainer as it provided constructive feedback in a timely and relevant fashion. In fact, I am planning to use the OMP feedback to make substantive changes to the module content (new topics) and teaching design (different case materials) in the net academic year. As I proceeded to collect and analyse the OMP forms, in time I managed to anticipate the student difficulties and modify the teaching designs and practices to avoid or resolve them.

Overall I found that, the students were particularly optimistic about the OMP. The completion of the form, constructive criticisms and participation, subsequent teaching interactions and voluntarily signing the OMPs were very good indicators to measure its success. When participating with the OMPs, the AC31720 students identified certain entry points to the discussion topics (e.g. new issue of environmental accounting) and by doing so, they subconsciously engaged with the subsequent learning cycles. Every time, they identified such entry points they exposed themselves into the deep learning practice closely relating to the real-life.

S. References


Bateman, G. R., and H. V. Roberts (1992a) *What we think we're learning from the teaching lab: Extended discussion*. Graduate School of Business, University of Chicago.

Bateman, G. R., and H. V. Roberts (1992b) *TQM for professors and students*, Graduate School of Business, University of Chicago.


Wilson, R.e. (1986) "Improving Faculty Teaching: Effective Use of Student Evaluations and Consultants", *Journal of Higher Education*, 57(2), pp. 196-211.

APPENDIX 1 - One Minute Paper

AC31720 Role and Practice of Audit

Semester 2 - 2007/08

Date:

You have 5 minutes to brainstorm with your peers next to you and write short and specific answers to the following two questions.

What is the big point you learned in class today?

What is the main unanswered question you leave class with today?

Name (or email)

(This information is required to seek any clarifications relating to the above answers - but disclosing this information is not compulsory)