Teaching in Higher Education

Peer Assessment in Undergraduate Programmes

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ABSTRACT   *Peer assessment was introduced into the assessment strategy of two marketing modules on two undergraduate programmes at Manchester Metropolitan University. A questionnaire was used to elicit responses from a sample of 80 students concerning their attitudes to and experience of, the peer assessment exercise. Students felt that the benefits of peer assessment were: the increase in personal motivation as a result of their active involvement in the assessment process; the opportunity to compare and discuss the assignment, and the opportunity to gain knowledge and develop a greater understanding of the assignment content and assessment process. Criticisms included the effects of personal bias on the marks awarded, the interpretation of criteria and the ability of the students to assess. Some students regarded peer assessment as an incentive to perform, while others saw it as an unfair system that lacked objectivity. Over half the sample regarded assessment as solely a role for the tutor. The research found that peer assessment made a valuable contribution to the variety of assessment and it enabled students to better understand the assessment process, however, it was a time consuming process for tutors.*

Introduction

Employers require their graduate trainees to demonstrate appropriate academic knowledge and practical skills in the workplace. Business Studies students are expected to have gained knowledge in a wide variety of subject areas and to be able to demonstrate communication skills, the ability to work as an individual or in a group, numeracy and familiarity with information technology. Higher Education establishments are being asked to produce graduates with these characteristics, therefore assessment of the extent to which students are demonstrating those characteristics needs to take place. The literature argues that tutors should be developing types of assessment which result in effective, efficient and appropriate assessments, instead of always following the 'traditional' approach in their subject area: 'Multiple methods are necessary to assess multiple talents for multiple audiences' (Brown & Knight, 1994).

The aim of this study is to collate information on student attitudes to a form of assessment that had not previously been used in the Marketing subject area at Crewe and Alsager Faculty. Two marketing tutors based in the Department of Business and Management Studies were keen to introduce peer assessment to ensure variety in their assessment strategy, to stimulate interest, and to facilitate the development of alternative teaching and learning strategies. It was also the intention to develop a deeper learning experience, with students experiencing interaction with new information in terms of the assignment content, assessment criteria and the process of assessment, as opposed to rote learning (Brown & Knight, 1994). An earlier study (Fry, 1990) suggested that the reliability of alternative assessment practices should be investigated and outlined some significant advantages of peer assessment:

1. Students spend time marking the work and comparing their efforts, thus reinforcing the correct solution.
2. Students see the marking scheme and can appreciate that marks are awarded for method and understanding, as well as for the right answers.
3. Students are exposed to other students' solutions and in attempting to mark the 'scripts' they realise the importance of a clearly presented solution.

The Sample

Marketing modules on two courses within the Department were chosen as the sample for this investigation: the BA (Hons) Business, Sport and Recreation, a 2-year extension degree for students who have completed the HND in Business and Finance including the optional sports route (and are therefore in their third year of study at the Faculty) and the BTEC HND in Business and Finance. Peer assessment was introduced into the assessment strategy for both modules during the academic year. The assessment topic area was one of three assignments used to assess the achievement of each of the units learning objectives.

The decision to include an element of peer assessment in the modules was to encourage deeper learning; the assessments were not only concerned with marketing theory/constructs, but also about the development of personal transferable skills and the development of professional marketing skills. The real world/practical emphasis of the assignments was different from the students usual diet of assessment and provided opportunities for reflective learning, comparison against peers and to think about assessment as not something that is done at them.

The first year core module on the BA, entitled 'Marketing Strategy' with a cohort of 40 students, formed part of the sample for this study. The remainder of the sample comprised 40 students undertaking the second year HND option module 'International Marketing' The assignments involving peer assessment took place during the second term and were undertaken in a normal lecture room environment in a timetabled lecture session. Both cohorts of students had approximately 6 weeks to prepare their assignments. When the assessment tasks were set, a copy of the appropriate marking scheme was distributed to each student and the

tutors verbally explained the students' contribution to peer assessment. Fry (1990) stated that it is important that students have a clear understanding of the purpose of the assessment. As the marking schemes for the assessments were provided, it may be argued that the tutors played a part in the assessment and perhaps, the term 'peer marking' (loc. cit.) is more appropriate than peer assessment.

The group nature of the assessments made it logical for the group format to remain for assessment purposes, i.e. each group would mark the other groups' performance. No individual marks were to be awarded.

The BA assessment involved a role play, where a group of five students assumed the role of marketing communications consultants who were invited to 'pitch' for the opportunity to take responsibility for a local authority leisure department's promotional business. The 'pitch' comprised a 20-minute presentation in the presence of fellow students and two tutors. Peer assessment for the BA students meant they could, therefore, listen actively to each group's presentation. Students were assessed on proposed communication strategy, implementation of strategy, quality of presentation, group work and time management. Student and tutor input was weighted at 40 and 60%, respectively.

For the HND students, their assignment required them to organise and run an International Trade Fair, where groups of five students were responsible for the design and running of a trade stand for a company of their choosing, who were entering a foreign market. The introduction of peer assessment allowed the HND Students to visit and assess all the trade stands. The tutors and the students assessed the visual quality of the stand, group work, professional conduct and communication strategy for an overseas market. Again student and tutor input was weighted at 40 and 60%, respectively. The percentage grades were translated by the tutor into a BTEC A–F grade profile.

For both assignments the learning outcomes of each were translated into assessment criteria and assembled into a matrix. This matrix was then given to each student for them to record their grade against each assessment criteria. These matrixes were then returned to tutors on completion of the assessment. This process made the tutors clarify what was really being assessed (McDowell, 1996). In addition, even though both assessments were being innovative it was important to remain in the conventional framework of HE assessment (McDowell, 1996) and thus the marking scheme devised was part tutor, part peer assessed.

The Methodology

Evaluation forms a crucial part of any teaching methodology (Fry, 1990) and as this was the first time peer assessment/marking had been introduced into the marketing modules, it was decided that a specific assessment evaluation on their peer assessment experience was needed, rather than the usual end of module generic evaluation. A questionnaire using a variety of question types was designed for evaluation purposes (see Appendix 1). An anonymous questionnaire was used because as Fry argued, 'it is unlikely that a truely representative response would be achieved in any form of student/tutor discussion because of the reluctance of students to voice negative aspects to the tutor'.

The aims of the study determined the nature and structure of the questions. Questionnaires must be designed with careful consideration if their results are to be meaningful (Fry, 1990) and thus question phrasing was carefully considered. The use of clearly stated alternatives helped the questionnaire to move forward in a logical manner.

Questions 1, 3, 7 and 8 are dichotomous questions to determine points of fact. Questions 9, 10 and 12 are open-ended questions that leave the respondent free to offer any replies that seem appropriate and are particularly suitable for exploratory research as they are not influenced by a set of pre-stated response categories (Tull & Hawkins, 1990). Questions 2, 4, 5, 6, 11 and 13 gave the respondent a choice from pre-determined response categories and were designed to elicit qualitative data concerning student attitudes to peer assessment.

Prior to the questionnaire being administered to the sample, a pre-test was conducted with five colleagues who taught on the two courses, to ensure clarity of wording and a logical structure. Following the pre test, the questionnaire was administered to the participating students. It was hoped that by using both a sample of BA and HND students, influences such as cohort membership, assignment task and subject topic could be minimised when drawing conclusions from the analysed questionnaire results.

The questionnaires were administered prior to the feedback of assessment grades to prevent the marks having an undue influence on the student responses. Thirty-five questionnaires were returned by the BA students and 30 by the HND students.

Limitations of the Methodology

The following limitations were observed by the researchers:

1. The articulateness of the respondents in answering open-ended questions could have led to some distortion because the free response format requires more psychological work on behalf of the respondent. Difficulties are encountered when analysing such qualitative data and it was left to the researchers to interpret the respondents' statements by their feel for the quality of the students' responses.

   However, the advantages of the open-ended format were considerable, it allowed the students to fully express their opinions in language of their choice and produced individual quotes of considerable interest to the researchers. When analysing these results we could have reduced the complexities of these responses by treating the data statistically using content analysis. However, such coding is time consuming and costly (Green *et al.*, 1988).

2. Marketing as an academic discipline and the nature of the two assignments (i.e. each presentation and trade stand was unique) did not lend themselves to explicit marking schemes and model answers (Fry, 1990). This could have led to problems communicating assessment criteria to the students. In the case
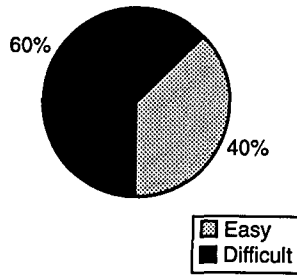
FIG. 1. Assigning marks.

of peer assessment using written work a typical example of each grade band could have been produced in advance to guide students.
3. The extent to which the responses were affected by acquired attitudinal sets could be a source of error (Williams, 1992), as the sample comprised students who were in their second and third years in the Department. Previous research within the Department indicated that students attitudinal sets develop and become more defined as the students progress through their academic programmes.

Results

The students were equally divided between those who had experienced peer assessment prior to this and those who had not. Slightly more HND students had not experienced peer assessment, which was to be expected as the BA students had been in education for a longer period of time. An overwhelming majority of students fully understood what was expected of them. Only one student admitted to being unclear about their role. However, even though their roles were understood, only 40% found it easy to assign marks, with the majority experiencing difficulty (Fig. 1). From the sample, sources of pressure were various (Fig. 2).

Question 6, which looked at collusion, was the first time that there was a large disparity in responses between the BA and HND students (Figs 3 and 4). Thirty-seven per cent of the whole sample had never altered marks as the assessment progressed, whilst 46% admitted to altering marks (Fig. 5).
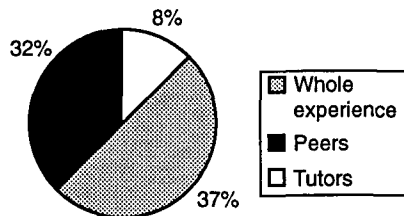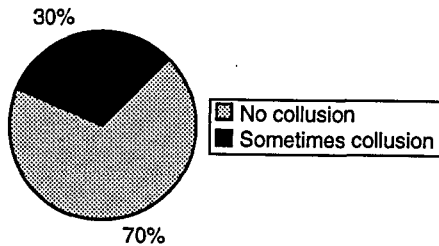

FIG. 2. Sources of pressure.
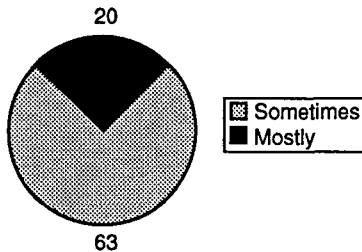
FIG. 3. HND—extent of collusion.

FIG. 4. BA—extent of collusion.
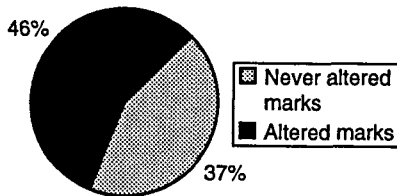
FIG. 5. Altering marks (all).

There was a dichotomy between the students who wanted to be involved in drawing up assessment criteria and those who did not (52 and 46%, respectively); (Fig. 6).

The key themes drawn from the responses to the open ended question regarding the benefits of peer assessment were as follows:

- It helped them to gain knowledge and understanding.
- It allowed active participation in the assessment process that alleviated boredom, increased concentration and thus made them feel more motivated.
- Increased motivation resulted from the students being able to express their own opinions.

FIG. 6. Desire to be involved in drawing up the assessment criteria.

- The opportunity to compare work against peers was also welcomed.
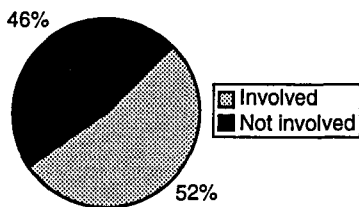- The grades achieved from the process of peer assessment or peer marking were more reliable than grades assigned by one person, i.e. the tutor's. (This was not necessarily an overt criticism, as the HND students stated that the tutors may be overworked and therefore inconsistent).
- Elimination of bias and the opportunity for different views to be reflected in the assessment process.
- Students believed that they had not been unduly influenced by the marks awarded to them, when they themselves were awarding marks.

The stated criticism of peer assessment were as follows:

- It was difficult in the students' view to avoid personal bias, i.e. they often felt more favourable towards their friends.
- Students questioned their own worth and therefore felt that it was difficult to take their marking role seriously.
- The students' lacked experience of peer assessment.
- Students encountered difficulties in the interpretation of assessment criteria.
- Assessment should be the sole responsibility of tutors.

When questioned on their feelings after the assessment experience, nearly half of the students felt that their perceptions of peer assessment had not changed. For those who felt their perceptions had changed, there was a difference in views between the HND and BA students. The HND students felt that the process made them want to perform better and that overall they were surprised that 'over generous' marks were not significant. In contrast, a number of the BA students felt it to be an unfair marking system that lacked objectivity.

Conclusions

The results show that the students did experience difficulty in assigning marks. However, only one student stated that they did not understand their role. This suggested that the lack of explicit assessment criteria could not be blamed and it therefore became clear that the source of difficulty came from other areas. The pressure felt by 49% of respondents may to some extent, have contributed to problems in assigning marks. Entwistle & Ramsden (1983) argue that too pressurised an environment leads students to fall back into a surface approach to learning. It was interesting to note that only 8% of respondents felt that the pressure came from their tutors. Self-confidence in themselves as assessors was lacking but the main pressure appears to stem from the assessment process as a whole and from their peers.

Brown & Knight (1994) state that students can under- or over-mark their colleagues in order to settle old scores or out of friendship and loyalty and that they can also be unsophisticated in their judgements, especially in an audio visual assessment. Forty-six per cent of BA respondents admitted to altering marks as the

assessment progressed. It was not unexpected that students who were in their third year of study together were unwilling to assign low marks to their colleagues, especially as the grades contributed to the end of unit assessment (Brown & Knight, 1994). Previous research in the Department supported this view, by showing that students on extension degrees exhibited 'third year syndrome' behaviour (Brindley & Scoffield, 1994).

However, in the sample as a whole, collusion was not a problem. Indeed, the HND students were surprised by the success of the assessment, as they had anticipated that 'over-marking' by friends would be a major issue. Overall, peer assessment was seen as a fairer assessment, a result that is confirmed by Fry (1990).

Surprisingly, the newer the students, the more willing they were to try new assessment methods, however, over half of the sample saw assessment as exclusively the role of the tutor. The resistance of students is documented by Brown & Knight (1994) who report the refusal of students to participate in peer assessment, especially part-time or mature students on post-graduate cources. Williams (1992) stated that students seek security, with tutors planning what students do. It is suggested that students need to undergo attitudinal change towards their learning roles and need practice in more self-evaluative role behaviours if peer assessment is to become more acceptable and successful.

There was no clear majority in favour of drawing up assessment criteria, which may link with attitudes on tutors' responsibilities. Brown & Knight (1994) argue that assessment criteria should be increasingly shaped by the students themselves and that they should be encouraged to take responsibility. However, the ways in which this encouragement can be effectively instilled into student cohorts is an area for further investigation. From the researchers' experience it cannot be encouraged by one isolated assessment exercise, but has to form part of the course philosophy.

Contrary to the findings of Fry (1990) who found peer assessment easy to administer, the researchers found the process to be time consuming and not a solution for minimising marking workload. This experience is echoed by Brown & Knight (1994) who highlight that the effort is 'front-loaded', with tutors spending a large amount of time discussing the process with the students and preparing them for the assessment session. In addition, the researchers found that considerable time was spent with the B.A. students on post-assessment feedback, discussing grades and justifying the process.

From the research results it would appear that deep learning did occur as was hoped. The HND students felt that they had performed better as a result of participating in the peer assessment process and that it had exposed them to new ideas. This supports the view of Brown & Knight (1994) who state that peer assessment gives the student ownership of the learning experience, that it is a participative process rather than something that is 'done to them'. If greater experience is gained in assessment and learning, it is hoped that the students will develop into more autonomous learners, encouraging reflective learning, with less dependence on the tutor for all the 'answers'.

Students will be expected to work in teams and to assess their own work and that of colleagues and subordinates in the workplace. Peer assessment is, therefore,

a valuable exercise in self-development and preparation for their future careers. The responses collated in this research exercise have provided a useful insight into student attitudes to peer assessment and will inform the development of future assessment strategies.

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Appendix 1

Peer Assessment Questionnaire

You have recently completed an assignment which was partly peer assessed. We would welcome your thoughts on your experience of peer assessment. This questionnaire is anonymous and requires your **individual** views.

Please circle the appropriate response.

1. Has this been your first experience of peer assessment?   Yes   No

2. Did you fully understand what was expected of you?

   Fully understood   Some understanding   Unclear

3. Did you find it easy to assign marks?   Yes   No

4. How much pressure did the experience put you under?

   Extreme   High   Some   Low   None

5. Where do you feel the pressure came from?

   Peers   Tutors   The role play   The whole experience

6. Did you compare marks with your peers?

   Always   Most of the time   Sometimes   Never

7. Would you have preferred to have been involved in drawing up the assessment criteria?   Yes   No

8. As the experience progressed, did you feel the need to alter your initial assessments?   Yes   No

9. In your opinion, what are the benefits of peer assessment? (if none leave blank)

   _____

   _____

   _____

   _____

10. In your opinion, what are the problems of peer assessment? (if none leave blank)

    _____

    _____

    _____

11. After the experience, how did your perceptions of peer assessment change?

    (a) They didn't   (b) Changed for the better   (c) Changed for the worst

    If your response is (a) go to question 12

12. Please explain how your feelings have changed

    _____

    _____

    _____

    _____

13. Here are five statements concerning peer assessment. Please circle the appropriate response.

(a) Assessment should be the sole responsibility of tutors.

Agree   Disagree

(b) The level of marks that I award my colleagues is directly influenced by the marks they award me.

Agree   Disagree

(c) I feel intimidated by the whole process.

Agree   Disagree

(d) I do not feel sufficiently knowledgeable to mark another students assignment.

Agree   Disagree

Thank you for your co-operation.