

Enhanced Feedback - Does Peer Assessment achieve this goal?

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***Abstract:** The students' responses towards peer assessment of assignments system and their acceptance of peers' assessment feedback were evaluated at the University of Southern Queensland (USQ). More than 95% of a class of 165 students participated in the peer assessment process. However, only eighty-five students responded to the voluntary survey questions. Most respondents (>60%) found the peer assessment of assignment system useful as a learning tool. Many of them (>57%) also found feedback from their peers helpful. A significant minority (~25%) remained sceptical of the peer assessment of assignment system and they did not readily accept peers' feedback. This paper analyses students' responses and concludes that the peer assessment of assignment system had no comprehensive benefit to this cohort of students. However, the analysis revealed a wider scope of the system in enhancing student learning if it is implemented correctly and if peers provided feedback considerably.*

Introduction

Assessment is used as a learning and teaching tool in most educational settings. It is often considered to be the main driving force behind student learning (Brown et al 1995). Assessment is also an avenue to monitor student progress and a method of providing feedback to students (Huddleston and Unwin 2002). It has many different forms such as; assignment, essay, quiz, portfolio, report, examination etc. A written assignment is a widely used form of assessment that is usually designed to help reinforce students' learning and test their understanding of the course materials. Conventionally, assignments submitted by students are assessed by an assessor and returned with feedback. Effective and high quality feedback has often been identified as a key element of quality teaching (Rowe and Wood 2007). However, giving assessment feedback is only one side of the story. The students should be able to receive it and act on it, otherwise it is wasted (University of Brighton 2008).

In fact, the effectiveness of assessment feedback is questionable. Moreover, students do not seem to react in the same way to assessment feedback. According to Wojtas (1998) many students; are only interested in their grade, throw away feedback if they disliked the grade, and pay little attention to the written feedback provided by the assessor. Anecdotal evidence from teaching colleagues reveals that assessment feedback is poorly utilised by the majority of the students (Brodie & Lock 2009). Our own experience suggests that a number of students do not collect their assignment once it has been assessed. Jollands et al. (2009) found that students would not read the feedback and/or act on it even if they collected the assignment.

After extensive literature review Careless (2003) identified several factors contributing to the effectiveness of assessment feedback and listed them under 'bad news' and 'potentially better news' categories. Major influencing factors identified in this and other literature include; alignment of assignment to learning outcome, timeliness of feedback, feedback quality, quality of assignment

question, availability of assessment guidelines, student's attitude towards the feedback and their knowledge to use them correctly etc (Wojtas 1998, Higgins et al. 2001, Careless 2003, Weaver 2006, and Jollands et al. 2009). Higgins et al. (2001) also flagged feedback associated with a grade as a disadvantage because of the dual role of an assessor in both assisting and passing judgement on the student. The 'elevated' status of the assessor in passing the judgement on the student has been pointed out as a hindrance for the conventional assignment, assessment and assessment feedback based learning environment.

Hence, attempts are underway to increase effectiveness of assessment feedback through the use of alternate assessment and feedback practices such as the use of peer assessment (e.g. Bloxham & West, 2004; Prins et al, 2005; Draaijer & van Boxel, 2006; Loddington et al 2009). Peer assessment is a system which provides students with the opportunity to read, carefully consider, and comment on the work of their peers, while comparing it with their own (Basnet et al 2009). It is generally agreed that giving feedback on a peer's work and receiving feedback for their own work would provide students with an insight into their efforts while instigating the feeling of belonging to a learning community. In general, a peer assessment system is meant to provide increased understanding of the learning content, help develop assessment and constructive criticism skills, promote critical thinking skills and allow reflection on one's own performance (Draaijer & van Boxel, 2006; Prins et al. 2005; Bloxham & West 2004; Magdeline et al. 2008). From this standpoint, the peer assessment of an assignment system seems appealing. However, this may or may not contribute to the effectiveness of assessment feedback in an environment where overwhelming majority of the students study in a distance mode.

One of the characteristic features of the distance mode of study is that students have no direct contact with their peers. They may have electronic contact through participation in the online forum, however, not everyone chooses to utilise it. In this context, the distance students, working in an isolated environment, may find the experience of assessing peer's work and receiving feedback from peers for their work challenging. Therefore, the effectiveness of peer assessment of assignments system was evaluated at the University of Southern Queensland (USQ) in a course offered overwhelmingly in a distance mode. The objectives of the study were to;

- evaluate students' viewpoints on peer assessment of assignment system,
- find out the extent of their acceptance of peers feedback, and
- gather their opinions and suggestions for the future implementation of the system.

Methodology

The peer assessment of assignments study was conducted in the Geographic Information Systems (GIS1402) course at the USQ in Semester 2, 2009. In excess of 80% students were enrolled in a distance mode in this course. In accordance with USQ policy, ethic clearance was obtained prior to beginning this study.

The peer assessment study was completed in a number of logical stages. In the 'preparation phase', Moodle and Turnitin-based electronic assignment submission systems were setup for duplicate submission of an assignment. Duplicate submission was necessary to separate regular assessment from the peer assessment. Moodle submission was used for the regular assessment while the Turnitin submission was for the peer assessment. Turnitin was chosen for the peer assessment since the default USQ Moodle system was not fully developed to perform this task.

Regular and peer assessments were conducted during the 'assessment phase'. Moodle submissions were appraised by the instructor. This was part of the regular assessments in the course. The assignments submitted to Turnitin were randomly distributed (two assignments per student) for double-blind peer-assessment. Students conducted peer assessment within the Turnitin platform. The quality of students' peer assessment work was assessed separately by the instructor. All these assessments (i.e. regular, peer & quality) were based on comprehensive marking rubrics developed specifically for these purposes

Collecting student survey data was the focus of the 'data acquisition phase'. Student survey was selected as the method of data acquisition because the aim of this study was to observe students' reaction towards peer assessment and peers' feedback. Five-point based Likert-scale type survey

questions, with provision for descriptive feedback, were employed in the survey. Six survey questions were used three of which are relevant to this report and are listed in Table 1. The range of possible answers is also provided in the table below.

Table 1: Survey questions with range of possible answers

	Likert-scale Type Survey Questions	Answer Range (1-5)
1	What do you think about the peer assessment system in general?	Total waste of time to very useful system. Descriptive comments
2	What do you think about the feedback from your peers?	Totally useless to very useful. Descriptive comments.
3	Do you suggest any improvement to the system for future implementation?	No throw it away to it is perfect. Descriptive comments.

The final stage of the peer assessment process was the ‘data analysis phase’ involving processing of subjective responses, expressed in a Likert-scale, as ordinal data. These data were summarized numerically and presented as bar charts for ready interpretation. The descriptive comments served to enrich the collected data, and were most useful to explain/understand students’ responses.

Results and discussions

Several intermediate and final outputs were produced during the study. Reporting intermediate outputs such as the development of assessment materials, marking rubrics, and a grading scheme for evaluating peer assessment are beyond the scope of this study. Hence, only the analysis of survey responses are presented and discussed here. Eighty five students voluntarily completed the survey. The results of student responses to each of the three survey questions are presented as charts and discussed separately in the following sections.

I. Survey question 1: What do you think about the peer assessment system in general?

The response to this survey question reflected that the majority (>60%) of the student respondents found the peer assessment of the assignments system useful as a learning tool (Figure 1). It has helped them to reinforce their understanding of the course materials. It has also helped them to determine the level of their own work.

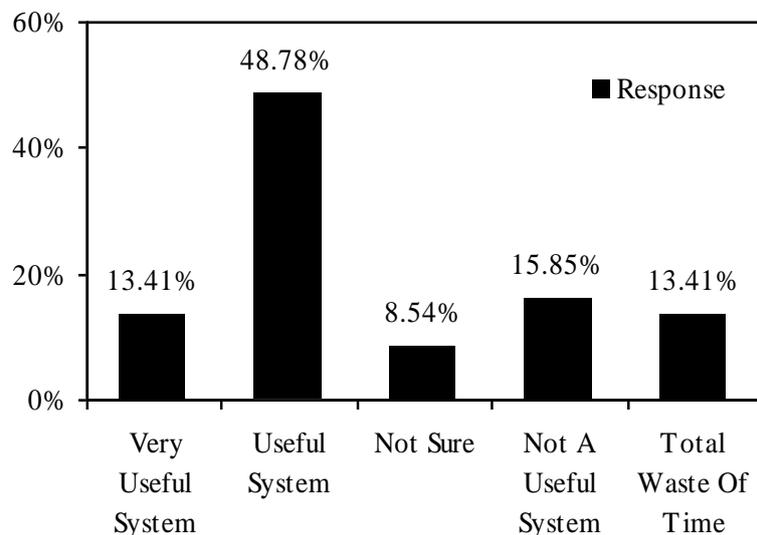


Figure 1: Perceived Rating of the Peer Assessment of Assignment System

More than 8% students did not provide any particular view, however, close to 30% students either partially or fully disapproved of the system. Based on the descriptive comments provided by these students, most of their disapproval was related to one or more of the following three reasons.

1) Lack of familiarity with technology employed: Students were particularly dissatisfied with the use of two separate platforms (i.e. Moodle and Turnitin) for assignment submission, assessment and peer assessment. They found the Turnitin system particularly problematic due to an apparent lack of user-friendliness. They also reported occasional Turnitin access problems.

2) Student directions and instructions: Disapproval for some students was from the perceived lack of clear direction and guidelines. These students found it difficult to understand the purpose of the peer assessment of assignment system. Some of them experienced difficulty in working out the peer assessment procedure from the given set of instructions provided to them online.

3) Student attitudes: The other reason for disapproval was the attitude of some students towards the peer assessment of assignment system and peers' feedback. These students disapproved of the system simply because they reject the concept of marking a peer's assignment. Some of them were utterly against fellow students reviewing and commenting on their work. These students firmly adhered William Perry's position of 'Dualism' where a teacher is considered to be the sole assessor of students' works.

The descriptive feedback obtained from these students has been helpful in isolating the key issues that can be addressed in the future implementation of the peer assessment of assignment system.

II. Survey question 2: What do you think about the feedback from your peers?

In response to this survey question, the majority of the student respondents (>57%) reported that the feedback from their peers was useful (Figure 2). Most of them agreed that peer's feedback has been helpful to direct them to the areas of their assignment requiring more attention. Some pointed out that peers' feedback could have been more effective if the feedback was clearer and/or very specific to the problem being identified. A considerable number of students (>15%) were unsure about the usefulness of peers' feedback. Many of them reported that the feedback provided by their peers (e.g. yes, no, good, ok etc) were too brief to be of any use.

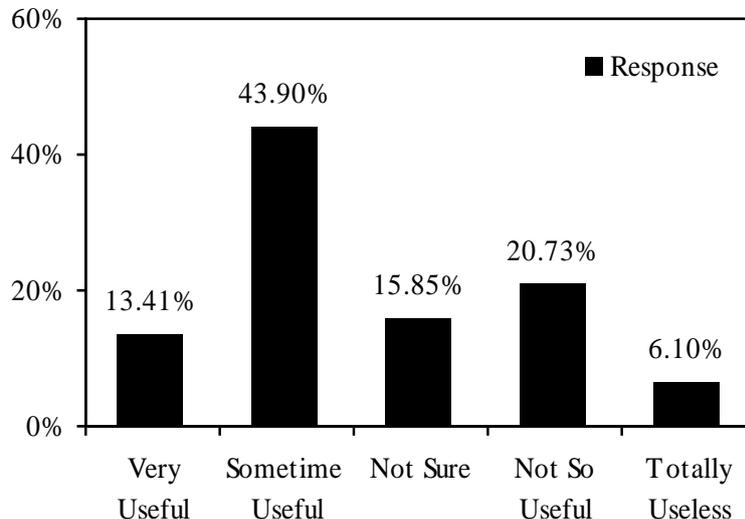


Figure 2: Usefulness of Peers' Feedback

On the other hand, about 26% students considered peers' feedback of little use. From the descriptive comments provided by this group of students it can be inferred that the language used by their peers in providing the feedback has substantially influenced their viewpoint towards the usefulness of peers' feedback. A number of these students bluntly commented that their peers lacked sufficient knowledge to be able to provide useful feedback. Some others suggested providing the choice of a set of specific comments so they cannot write 'offending' comments as feedback.

From the student responses to this survey question it can be safely assumed that the quality of feedback can be improved substantially thereby raising its usefulness. So, better ways of providing effective feedback should be the focus of future studies involving peer assessment.

III. Survey question 3: Do you suggest any improvement to the system for future implementation?

Most (>56%) students have suggested improvements to the peer assessment of the assignments system prior to its implementation in the future (Figure 3). They suggested a number of improvements including user-friendly technology, improved marking rubrics, understandable assessment guidelines, and a clearer purpose statement. Some students commented on their first time exposure to such a system and still found it interesting. Then again, a significant minority (about 25%) of the students remained unsure about the system. Most of them did not suggest any improvement to the system since they were neither supporting nor rejecting its future implementation. Almost 11% of the students disapprove of its future implementation without providing any supportive argument. On the other hand a small percentage (<8%) of the students have rejected peer assessment since they subscribe to William Perry's position of 'dualism'.

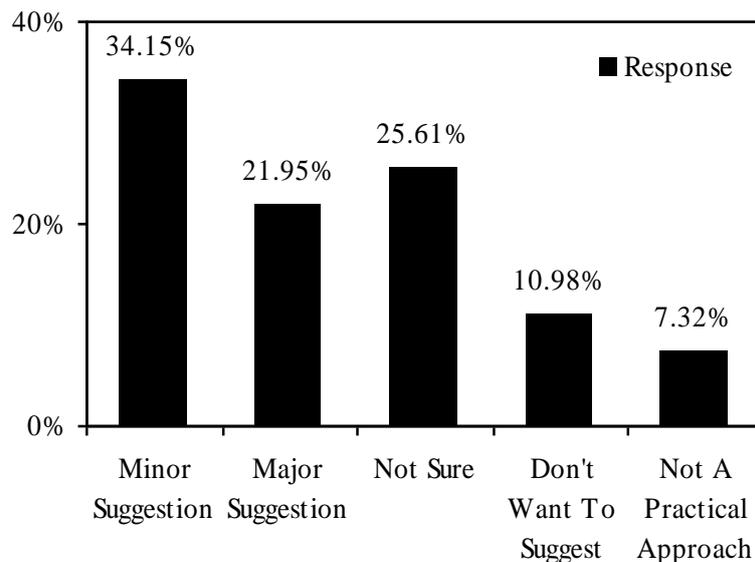


Figure 3: Suggestion Levels for Future Implementation

In general, the peer assessment of the assignment system could offer significant learning benefits to students if future implementation of the system incorporated their suggestions. The use of two different platforms (i.e. Moodle and Turnitin) was clearly the most critical issue to be addressed in future study. The improvement in learning outcomes due to the peer assessment of the assignment system was not examined as part of this study. However, some enhancement in learning is expected when the system is considered useful by the majority of the students.

In this study, it was not feasible to separately analyse the responses of on-campus and distance students due to anonymous nature of the peer assessment process. However, the findings of this study are largely based on the responses of distance students since more than 80% were enrolled in a distance mode.

Conclusions

A majority of the students viewed peer assessment of assignment as a useful learning tool. They also found feedback from their peers useful. Many of these students suggested future implementation of peer assessment with improvements. The key areas of improvement suggested include; use of user-friendly technology, clearer purpose of peer assessment, comprehensible assessment guidelines, and guided feedback mechanism to avoid offensive comments from their peers. In this study, a significant minority of the students neither endorsed nor disprove of peer assessment concept. A small percentage of students, however, strongly disapprove of the system because they did not accept peer assessment. These students either fully or partially subscribed to William Parry's position of 'dualism'. In conclusion, peer assessment offers considerable potential for enhanced (on-campus & distance) student learning if future implementation incorporated students suggested improvements.

References

- Basnet, B., Brodie, L., & Worden, J. (2009). *Peer assessment of assignment – The USQ experience*. Annual Conference for the Australasian Association for Engineering Education, 6-9 Dec Adelaide, 953-960.
- Bloxham, S., & West, A. (2004). Understanding the rules of the game: Marking peer assessment as a medium for developing students' conceptions of assessment. *Assessment and evaluation in higher education*, 29(6), 721-733.
- Brodie, L., & Lock, B. (2009). *Annotations with a Tablet PC or typed feedback: does it make a difference?* 20th Annual Conference for the Australasian Association for Engineering Education, 6-9 Dec Adelaide, 766-770.
- Brown, S., Race, P. & Rust, C. (1995) Using and experiencing assessment. In P. Knight (Ed), *Assessment for learning in higher education*. Kogan Page Limited.
- Careless, D. (2003). *Learning –oriented assessment*. Evaluation and Assessment Conference, November 24-25, Adelaide.
- Draaijer, S., & van Boxel, P. (2006). *Summative peer assessment using 'Turnitin' and a large cohort of students: A case study*. In Danson, M (Eds.), Collections of the 10th CAA international computer assisted assessment conference, Loughborough, UK, 167-180.
- Higgins, R., Hartley, P., & Skelton, A. (2001). Getting the message across: the problem of communicating assessment feedback. *Teaching in Higher Education*, 6(2), 269-274.
- Huddleston, P. & Unwin, L. (2002). *Teaching and Learning in Further Education*. 2n Edition. Routledge Falmer. London.
- Jollands, M., McCallum, N., & Bondy, J. (2009). *If students want feedback why don't they collect their assignments?* 20th Australian Association for Engineering Education Conference, 6-9 December, Adelaide.
- Loddington, S., Pond, K., Wilkinson, N., Willmot, P. (2009). A case study of the development of WebPA: An online peer-moderated marking tool. *British Journal of Educational Technology*, 40(2), 329-341.
- Magdeleine D. N., Alwis, W. A., & Henk, G. S. (2008). *Peer assessment in problem-based learning: Students' view*, IAEA Annual Conference, Cambridge, UK, 1-9.
- Prins, F. J., Sluijsmans, D. A., Kirschner, P. A., & Strijbos, J. (2005). Formative peer assessment in a CSCL environment. *Assessment and evaluation in higher education*, 30(4), 417-444.
- Reeves, T. C., & Laffey, J. M. (1999). Design, assessment, and evaluation of a problem-based learning environment in undergraduate engineering. *Higher Education Research and Development Journal*, 18(2), 219-232.
- Rowe, A. D., & Wood, L. N. (2007). What feedback do students want? Paper ROW07086, Australian Association for Research in Education (AARE) Conference, Fremantle.
- University of Brighton (2008). *Assessment and Marking*. Centre for Learning and Teaching Study Pack, Accessed at <http://staffcentral.brighton.ac.uk/clt/resources/documents/Study%20Packs/AssessmentandMarking2008-9.pdf> on 5 July 2010.
- Weaver, M. R. (2006). Do students value feedback? Student perception of tutors' written responses. *Assessment & Evaluations in Higher Education*, 31(3), 379-394.
- Wotjas, O. (1998). Feedback? No, just give us the answers. *Times Higher Education Supplement*, Sept 25, 1998.

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