

Peer Assessment of Assignment

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Abstract - We have appraised the effectiveness of peer assessment of assignments in aiding student learning at the University of Southern Queensland. Each student was randomly allocated two peers' assignments for double-blind assessment. A marking rubric was provided. More than 95% of the class participated in the process. Students' peer-assessment work was evaluated by the instructor. Over 80% of the students assessed their peers satisfactorily. Students' learning experiences, attitudes and behavior towards the peer assessment system was surveyed. More than 60% of the students considered peer assessment a useful learning tool. However 25% remained unconvinced. Most of these students either fully or partially subscribed to William Perry's position of 'dualism'. About 55% found the feedback from their peer's useful. Surprisingly, >69% of the students believed that the peer assessment had nothing to contribute towards a students' community of practice.

Index Terms – assignment, double-blind, marking rubric, peer assessment.

BACKGROUND AND CONCEPT

Written assignments are usually one of the main assessment items in higher education institutions. Assignments are marked and returned to the students as feedback. Well-focused feedback helps students with their learning. However, anecdotal evidence from teaching colleagues indicates that assignment feedback is poorly utilized by most students [1]. Therefore, the current assignment marking and feedback method is ineffective. Alternate mechanisms such as the use of peer assessment [2]-[5] are being attempted at various institutions to overcome this problem. Peer assessment is a system that provides increased understanding of the learning content, helps develop assessment and constructive criticism skills, promotes critical thinking, and allows reflection on one's own performance [2]-[4] and [5]. In view of these potential benefits, this study was conducted to evaluate the overall learning effectiveness of the peer assessment of assignments system.

METHODOLOGY

This peer assessment of assignments study was conducted in the Geographic Information Systems (GIS1402) course, offered in both on-campus and distance modes, at the University of Southern Queensland (USQ) in Semester 2, 2009.

It is a sequential process requiring completion of several steps in a chronological order. The focus of the 'preparation phase' was to set-up an electronic assignment submission system. Moodle and Turnitin based platforms were prepared for the duplicate submissions of conventional written assignments. A substitute assignment was provided for small number of students not participating in the peer assessment process.

The 'assessment phase' involved examination of the electronically submitted assignments to the Moodle platform that were appraised by the instructor. A second copy submitted to the Turnitin platform was double-blind peer-assessed by the fellow students. The peer assessment work of the students was evaluated by the instructor. All these assessments were based on comprehensive marking rubrics prepared specifically for these purposes.

The 'data acquisition phase' focused on collecting survey data via 5-point based Likert-scale type questions. The survey questions and the range of possible answers are presented in Table 1. These questions were complemented with the provision for descriptive comments.

TABLE I
DATA ACQUISITION MECHANISM

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, plus comments.
2	Has peer assessment improved your understanding of the course material?	Definitely no to definitely yes plus comments.
3	Do you find peer assessment a useful learning tool in learning journey?	No it's useless to yes it is very useful, plus comments.
4	Did peer assessment instigate you to interact with fellow students?	Definitely no to definitely yes, plus comments.
5	What do you think about the feedback from your peers?	Totally useless to very useful, plus comments.
6	Do you suggest any improvement to peer assessment system?	No throw it away to it is perfect, plus comments.

The 'data analysis phase' involved processing subjective opinions of the students, expressed in a Likert-scale, as ordinal data. They were summarized numerically and collated as bar charts to reveal our findings. The descriptive comments enriched the collected data. They were used to elaborate and understand students' responses.

RESULTS AND DISCUSSIONS

Our results are presented and discussed in the following sections. The first three survey questions produced similar responses because the usefulness of the peer assessment system was the focus of these questions. The answer to the first survey question is presented as an example in Figure 1 below.

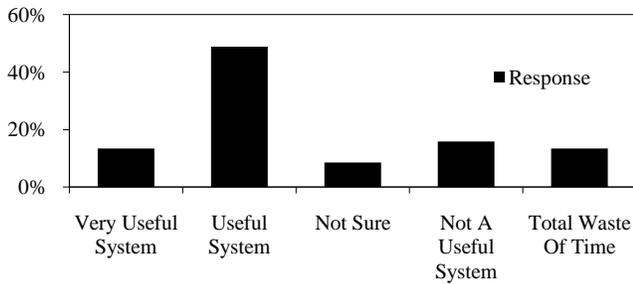


FIGURE 1
GENERAL RATING OF THE PEER ASSESSMENT SYSTEM

Students' responses to the first three questions revealed that more than 60% find peer assessment of the assignment system a useful learning tool. It has helped them to reinforce their understanding of the course contents. In contrast, 25-30% respondents either partially or fully disapproved of the system. From their descriptive comments, it can be inferred that the disapproval was related to two main issues. Firstly, it was the technical glitch in carrying out the peer assessment that impacted negatively. Secondly, it was the idea of marking peer's assignment that they did not like. This second group of students firmly believed on William Perry's position of 'Dualism' where a teacher is considered to be the sole assessor of students' works.

In response to survey question 4, the overwhelming majority of the students expressed the view that the peer assessment was not helpful in initiating interaction with the fellow students (Figure 2).

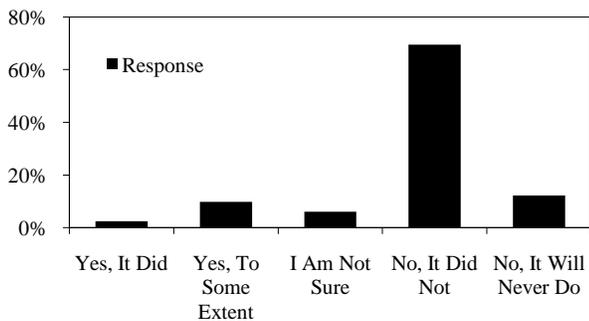


FIGURE 2
EFFECT ON INTERACTION WITH FELLOW STUDENTS

Most students do not value interaction with their peers and indeed do not consider it necessary. The main reason they give to their busy lifestyle. Most of these are distance students committed to the family, full time employment and study. Hence, they do not have enough time to interact with fellow students. Thus, the common assumption that the distance students could benefit from peer's interaction was proven false.

With regards to the peers' feedback, more than 56% of the students found it useful. About 16% remain unsure while more than 25% considered feedback from their peers not helpful (Figure 3).

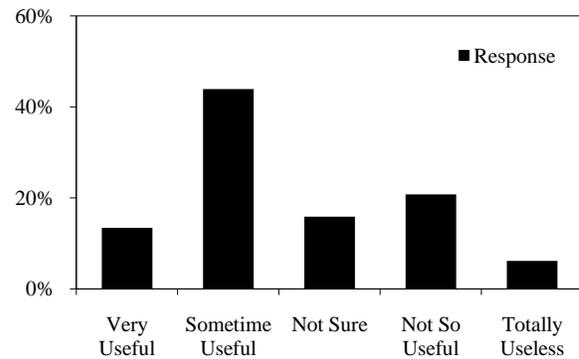


FIGURE 3
USEFULNESS OF PEERS' FEEDBACK

From students' comments we infer that assessment incompetency of their peers and the language they providing feedback had a negative impact. In response to the last question, most students suggested improvements before its next implementation.

CONCLUSIONS

This study revealed that the majority of the students find peer assessment of the assignments system useful. Most of them found feedback from their peers useful. However, they disagreed that peer assessment of assignments would contribute towards peer's interaction.

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