

# Assessment for Learning: Students' Perception on Peer Review in a Private University

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**Abstract** The process of assessing students has long been placed in schools. This process in the classroom can take many forms. The most important feature is that it is seamless with teaching and learning and constantly informing the teaching and learning process. While it can generally be seen that the increased use of assessment leads to higher quality of learning, it is often claimed that peer evaluation is often ignored. A key argument is that peer students can assess their counterparts' work and providing their feedback to them, while higher education can build on this assessment to evaluate students' overall performance. This shift in focus, whereby students are seen as having a proactive rather than a reactive role in generating and using feedback, has profound implications for the way in which teachers organize assessments and support learning. Thus, this research looks at peer-review issues and how effective this process in evaluating students. By using the evidence in this research, it will provide insights to teachers and the students in higher education on how peer assessment can improve students' learning.

**Keyword** Peer assessment · Teaching and learning · Students' evaluation

## 1 Introduction

One of the most important roles for higher education is that it provides a foundation for lifetime of learning, including socialization process. Formal learning and informal learning have existed for centuries from the Chinese civil servant examinations for public office, to Aristotle's students' assessment for medieval guilds (Earl 2006). Since the beginning of industrialization took place, schools have become a place for social establishment for evaluating student's achievement.

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Universities need to prepare students to learn beyond the academy once they leave these universities. This is a daunting challenge. Recently, the role of higher education in lifelong learning has been documented through a number of researches. They include a focus on learning outcomes (Hussey and Smith 2003), the use of graduate attributes (Hager and Holland 2006), the promotion of key skills, the adoption of an agenda of employability (Dearing 1997), and the development of capability (Stephenson and Yorke 1998). However, these researches are insufficient. Sadler (1998), Hounsell (2003), and Yorke (2003) argued that there are inadequacies of formative assessment practices during the students' courses. There has also been substantial criticism of the role of summative assessment and its negative effects on student learning (Ecclestone 1999; Knight 2002; Knight and Yorke 2003).

On the other hand, Woodward (1998) disputes that assessment practices do have positive effects on learning, such as journal reflections and portfolios. There has been a considerable interest in the concept of constructive alignment as well (Biggs 2003). Constructive alignment is used to examine whether the components in the teaching system, particularly the methods used and the assessment task, are closely aligned to the learning activities assumed in the intended outcomes. This includes initiatives that look at the long-term consequences of university courses, which includes assessment, on subsequent learning in professional practice (Mentkowski et al. 2000). It was suggested that current assessment practices in higher education did not equip students well for a lifetime of learning and the assessment challenges they would face in the future.

This study looks at one particular aspect of assessment, namely assessments in which students play a role as assessors. The literature review focuses on forms of self-, peer, and co-assessment from the point of view of their applicability in higher education. The following research question is addressed:

What are the main findings from research on self-, peer, and co-assessment?

## 2 Literature Review

Boud and Falchikov (2006) pointed out that there are basically two assumptions on the purposes of assessment. The first is to provide a certification of achievement, which allows students to graduate with a validated record of their performance in the program. Certification is used by employers and educational institutions, typically to make judgements about acceptability of candidates for employment and further study. The second purpose of assessment is to facilitate learning. This is done through the various kinds of test or assignment. Students are able to effectively judge their own achievements and what they need to do to learn more effectively within the program. These two purposes have been associated with two sets of practices: summative and formative assessment, respectively.

However, there are issues as to whether summative and formative assessment practices are able to adequately address a wider set of needs, for instance equipping

students for a lifetime of learning. Though in principle they might be able to do this, there are sufficient problems; nevertheless, it is effective to establish an additional purpose of assessment (Boud and Falchikov 2006).

Assessment is seen to employ a profound influence on student learning: on what students focus their attention on, on how much they study, on their quality of engagement with learning tasks, and, through feedback, on their understanding and future learning (Gibbs and Simpson 2003). As students become ever more strategic, the way assessment influences learning becomes critical in determining student learning outcomes and performance.

One of the most encouraging contributions from educational research is understanding the role of assessment in the process of learning. Black and Wiliam (1998) synthesized over 250 studies linking assessment and learning and found that the intentional use of assessment in the classroom to promote learning improved student achievement. Crooks (1988) also did a meta-analysis which discovered that classroom assessment had both short- and long-term effects on learning. In the short term, classroom assessment could focus attention on important aspects of the subject, give students opportunities to practice skills and consolidate learning, and guide further instructional or learning activities.

In the medium and long term, assessment held the possibility of influencing students' motivation as learners and their perceptions of their capabilities, communicating, and reinforcing teaching goals, including performance criteria and desired standards of performance; influencing students' choice of and development of learning strategies, skills, and study patterns; and influencing students' subsequent choice of courses, activities, and careers.

Because of these factors, it has become obvious that assessment is a powerful tool for learning. If learning is the goal, major changes are required in the way that assessment is used in classrooms. Learning is now viewed as a process of constructing understanding by attempting to connect new information to what is already known so that ideas have some personal coherence.

Earl (2003) and Earl and Katz (2005) have expanded on the differentiation made by the Assessment Reform Group to describe three intertwined but distinct assessment purposes—assessment for learning, assessment as learning, and assessment of learning. Assessment for learning is designed to give teachers information that will allow them to modify the teaching and learning activities in which students are engaged, in order to differentiate and understand how individual students approach their learning. This assessment suggests that students are all learning in individual and idiosyncratic ways, while recognizing that there are predictable patterns and pathways that many students go through.

## ***2.1 Benefits of Peer Assessment***

Falchikov and Goldfinch (2000) pointed out that a program of assessment which incorporates an element of peer assessment is beneficial to learning. Specific

benefits cited include the following: increased student responsibility and autonomy; evaluative skill development; insight into assessment procedures and expectations for high quality work; students work harder with the knowledge that they will be assessed by their peers; potential for providing increased levels of feedback without increasing demands on tutors (Walker 2001); and encourages deep rather than surface learning (Brown et al. 1996).

Evidence also suggests that students often fail to fully understand or utilize assessment criteria, do not know what a good or bad piece of work looks like, are focused toward the awarded mark or grade, and, as such, fail to read, understand, or adequately process tutors' feedback or act upon it (Crème and Lea 1997; Ding 1998; Glover and Brown 2006; Hounsell 1987; Lea and Street 1998; Wotjas 1998). Therefore, this is another reason why peer assessment is important given its reputed benefits in terms of skill development and improved learning and performance on assessed work (Brown et al. 1996).

### 3 Research Methodology

The primary purpose of the paper is to analyze students' perception of the peer assessment process, reflecting on its benefits and suggesting modifications for its improvement. The participants were from students currently pursuing different degree courses at Taylors University. A total of 115 responses were received for data analysis.

The study methodology consisted of the following steps and substeps:

1. Drafting a questionnaire on student's perception of peer assessment (see Appendix).
2. Design and implementation of peer assessment in each course. Within this aim, the corresponding activity was adapted to each particular course, but taking into account the following common criteria.
  - Before starting the questionnaire, the teacher explains to students the aims of the questionnaire and that the questionnaire is based on previous peer assessment done for a particular course subject.
  - Following the teacher's explanation, students answer the questionnaire based on the subject where peer assessment is evaluated. The students are given a maximum of 15 min to complete Sections A and B of the questionnaire.
3. Collection of results from questionnaire.
4. Analysis and discussion of results obtained from the different courses.

For many students, it was the first time that they had assessed their peers; therefore, it was important that the lecturer explained the peer assessment activity in detail before answering the questionnaire. Many authors have suggested that students need to understand learning objectives before evaluating their peers (Black and Wiliam 1998; Sadler 1989). It has also been shown that lecturers and students can have different perceptions of objectives of an activity as well as evaluation

criteria (Hounsell 1997; Norton 1990). As such, detailed explanations are important, so that the students might adopt and apply them in a reasonable way (Cestone et al. 2008; Falchikov and Goldfinch 2000; Lane 2007).

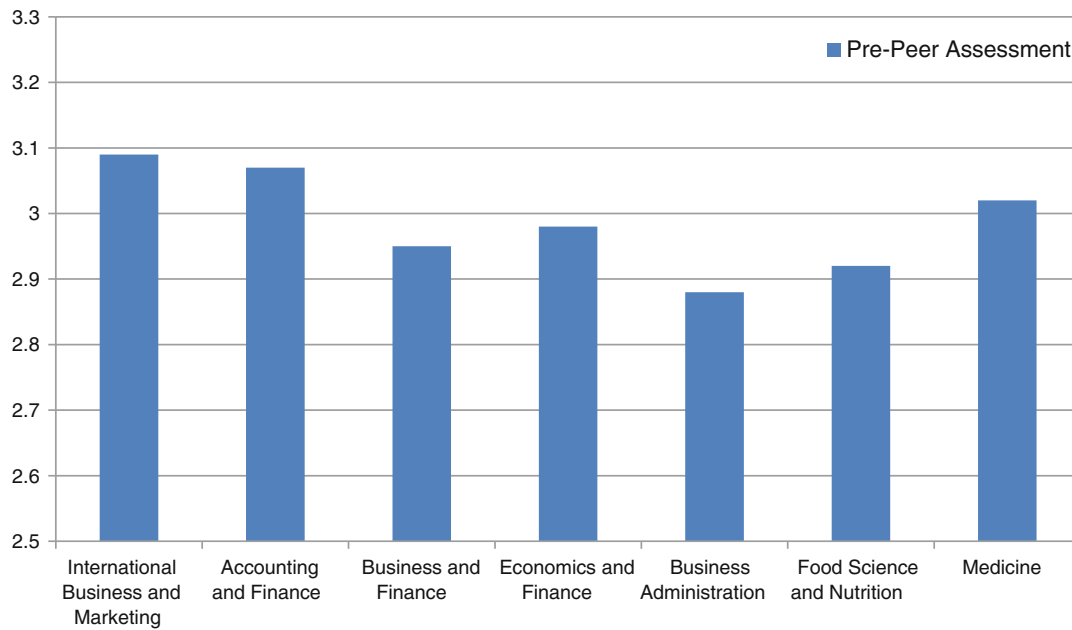
Specifically, the study is interested in the opinion of students with regard to their ability to participate in a peer-review process, the responsibility in which it entails, the level of preparation involved, the degree to which learning is achieved, and subjectivity and the demands of peer assessment in comparison with that of a lecturer. The questionnaire was developed with a 10 set of questions (Section B) to be answered on a Likert scale of four possible responses, ranging from '1—strongly disagree' to '4—strongly agree.' Two open questions were included in the questionnaires, requesting that students indicate two benefits and two limitations of peer assessment. For each subject, the student's responses to the multiple choice questions were analyzed quantitatively using statistical analysis, while open questions were analyzed qualitatively.

## 4 Results

There are 115 respondents of which 36 % are males and 64 % are females. These students are from different majors such as food science and nutrition (29 %), medicine (36 %), international business and marketing (18 %), accounting and finance (6 %), business and finance (2 %), finance and economics (5 %), and business administration (4 %). The findings are shown in Table 1.

**Table 1** Respondents' characteristics

Respondents' characteristics	Classification	Frequency	Percentage (%)
Ethnic group	Malay	35	31
	Chinese	66	57
	India	6	5
	Others	8	7
Gender	Male	41	36
	Female	74	64
Age	50 and above	0	
	40–49	0	
	30–39	0	
	20–29	115	100
Program	Food Science and Nutrition	33	29
	Medicine	41	36
	International Business and Marketing	21	18
	Accounting and Finance	7	6
	Business and Finance	2	2
	Finance and Economics	6	5
	Business Administration	5	4



**Fig. 1** Mean scores for pre-peer assessment questionnaires by program

Generally, the student's opinion of peer assessment was positive, as the mean average for all questions by program was above 2.0, and the overall average for all programs was 2.6 (on a Likert scale of 1–4). If we analyze the characteristics of the programs, some clear differences are observed (Fig. 1). Students enrolled into the Business Administration program are more reluctant to use peer assessment. However, students who are enrolled into the International Business and Marketing program show a better predisposition toward and interest in the benefits of peer assessment.

All respondents perceive to view peer assessment positively between programs. However, after further analysis, there are different elements of the process where variations are detected. The most significant of these are highlighted below.

#### ***4.1 Confidence in Personal Abilities***

For most of the programs, there is a positive trend with regard to opinions on the training and skills needed to participate in a peer assessment process (Question 1). Generally speaking, students valued being trained to participate in the peer-assessment process. However, students felt that they did not have the capabilities of assessing their own peers because of their lack of knowledge in the subject. Some of the opinions of this attitude given in the open answers are as follows:

*Peers may not be as knowledgeable as lecturers.*

*If my peers know less about that particular topic, there won't be a fair assessment.*

*Lack of peer skill.*

## **4.2 Variable Responsibility**

The perception of student responsibility in this assessment system varies according to the type of activity performed. Many students feel that if they were to be assessed by their peers, their peers will not be able to handle the responsibility. This is because peer assessment requires students to be fair and respondents felt that there will be a sense of biasness when students assess their peers. Students felt that their peers might not be subjective in their judgment. Many respondents feel that in order to safeguard friendships and certain bonds, their assessment will not be objective. Also, in order to ensure that the individual student get high assessment marks, the student in turn will assess his or her peers highly. In the end, the objectivity of peer assessment is questioned.

If we relate the answers to Question 4 regarding perception of responsibility to the rating of peer assessment in each program, the study concludes that the weight of the rating students award this form of assessment does not affect their perception of responsibility. That is, a higher percentage rating does not equate to a higher perception of responsibility.

## **4.3 Demanding Fellow Students and Variable Objectivity**

Question regarding fellow students being demanding (Questions 10) and the subjectivity of their assessment (Question 9) score among the highest in the questionnaires, although there is a high diversity of opinion among students.

With regard to whether students are more subjective than the lecturer (Question 9), the results show different parameters of analysis: the type of task, area of knowledge, and level of knowledge among students. Students attribute a lack of objectivity on the part of their peers. Students perceive that when assessing, their peers do not adopt an attitude of complicity or competitiveness, but rather the dimension of friendship plays an important role. Student biased toward friends, and this generates a lack of trust in the system of peer assessment and the quality of corrections by peers, expressed in responses to the open questions. It is worth considering some quotes from students to illustrate these uncertainties:

*Some peers are biased towards their group of friends (Medical students)*

*Could be bias between friends depending on how close the friendships are (Food Science and Nutrition student)*

*Assessing your peers might destroy the relationship between each other (International Business and Marketing student).*

## 5 Discussion

Comparing the perceptions of students from different degree courses on peer-assessment provides some significant results that complement previous research findings. In general, although students perceive peer assessment in a positive light which is in line with studies from Cestone et al. (2008), Gielen et al. (2011), and Nicol and Macfarlane-Dick (2006), many students feel that they are inadequate to assess their peers. This is because of their lack of knowledge pertaining to the subjects. This is both seen for the humanities and science students who find it difficult to accept the responsibility of assessing their peers because in comparison with their lecturer, they perceive that their knowledge as inadequate. Despite being provided with the rubrics for peer assessment, students' perception is that they are inadequate and not fit to assess their peers.

Secondly, in order to maintain certain friendships and bonds, students find themselves not being able to assess their peers objectively. This view differs to that of the Western culture (Mizoguchi et al. 2006). In the Eastern context, the study finds that there is much hesitation among students to evaluate their peers. Students believe that because of their friendship, they are unable to remain objective. Even if they were to remain objective and score their peer low, they know that friendships will be broken and are not willing to do so. This is because students generally would want to maintain those friendships and bonds.

### 5.1 *Future Research*

Researchers can look at the perceptions of peer assessment by further examining the learning process. Future research can be done in assessing peer assessment by providing a set of questionnaire before and after the process. By administering the questionnaires before and after, the researcher is able to reflect further on the benefits of peer assessment and suggests modification for improvement. Also, the method of assessment can be differentiated in future research. Peer assessment can be done either through written assessment or oral assessment. As both written and oral activities differ in their assessment, it would be interesting to see how students perceive this process separately. Hanrahan and Isaacs (2001) comment that the skills of peer assessment are necessary for graduates in their careers and also personal life. This is because peer assessment will aid potential graduates to contribute constructively in collaborating with their peers. Besides that, the experience of peer assessment will also provide other important skills such as them being subjected to criticism by others of the same position and rank and to help them with the responsibility of judging the quality of a peer fairly and objectively.



## Appendix

### A. YOUR PERSONAL INFORMATION

We need some basic information about yourself and your company to enable meaningful analysis of the results.

1. Your gender:

Male

Female

2. Your ethnic group:

Malay

Chinese

Indian

Others, please specify: \_\_\_\_\_

3. What is the highest level of formal education you have completed and its discipline?

<u>LEVEL</u>	<u>DISCIPLINE</u>
<input type="checkbox"/> Primary and secondary education	_____
<input type="checkbox"/> Diploma or Bachelors degree	_____
<input type="checkbox"/> Masters degree	_____
<input type="checkbox"/> Professional qualification (please specify)	_____
<input type="checkbox"/> Others; please specify	_____

4. Please state your age.

20 – 29 years

40 – 49 years

30 – 39 years

50 and above

5. Which school do you belong to \_\_\_\_\_

6. What programme are you currently studying \_\_\_\_\_

## B. PRE-PEER ASSESSMENT

Initial questionnaire used to determine student's perceptions before participating in the peer assessment process.

1 = Strongly disagree; 2 = Disagree; 3 = Agree; 4 = Strongly agree

1.	I have the necessary skills to participate in a peer assessment process	1	2	3	4
2.	My lecturer(s) clearly explained the procedure for effective peer assessment	1	2	3	4
3.	My lecturer(s) made the tools and instruments available to me to perform effective peer assessment	1	2	3	4
4.	Peer assessment means a lot of responsibility for the student	1	2	3	4
5.	Peer assessment will make me prepare my work better	1	2	3	4
6.	Peer assessment will force me to look for more and broader information on the contents of the module or activity	1	2	3	4
7.	Peer assessment will allow me to detect my own mistakes and learn from them	1	2	3	4
8.	Peer assessment will allow me to view learning critically and constructively	1	2	3	4
9.	I think my peers will be more subjective in their assessment (not following predetermined and representative criteria for the activity being assessed) than my lecturer(s)	1	2	3	4
10.	My peers will not be as demanding as my lecturer(s) in their assessment	1	2	3	4

Name two aspects you consider might be positive about this peer assessment experience

1. \_\_\_\_\_

2. \_\_\_\_\_

Name two difficulties or obstacles you might find in peer assessment

1. \_\_\_\_\_

2. \_\_\_\_\_

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