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**An investigation into teaching practice: Revising assessment (0175)**

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The case presented here refers to an undergraduate and a postgraduate course, which are delivered by 'parallel provision', i.e. both groups of students sit in the same class, but the assessment is different. The nature of the two courses is complex in terms of variety of content, the number of lecturers involved and hence the affect this has on assessment. Also, there has been consistent student feedback about over-assessment. Due to this, the assessment is revised to be more suitable and appropriate for the two student cohorts as well as the assessors attempting to provide timely grades and feedback to students. Of particular interest is calibrated peer review (CPR). This addresses numerous problems present in the assessment strategy, by allowing students to be active participants in the assessment process. The literature review provides insights into benefits and drawbacks of using CPR.

**An investigation into teaching practice:**

**Revising assessment**

In this paper, a postgraduate course and an undergraduate course will be discussed in terms of assessment practices as they were up until 2008. The literature has informed the changes that needed to be made in response to the current challenges of assessment, which is required to span undergraduate (UG) and postgraduate (PG) standards. Of particular interest is the application of calibrated peer review (CPR) to the assignments.

The courses used to be offered twice per year, in parallel provision. In terms of syllabus, the UG course has several additional topics beyond the PG syllabus, which the UG students studied during the study week. The more efficient way to offer these courses is with the same syllabus and same assessment, once per year, as this will reduce the number of hours invested in face-to-face teaching. In line with the university policy on improving and increasing the research output of the academics, teaching and course-coordination investment will be reduced, liberating time for the course academics to devote to research. In line with this, PG/UG combined course will run once per year with double the student numbers (90). PG syllabus will be followed. However, there are still numerous complexities of the course to be taken into account.

*Rationale and effectiveness of the assessment practice*

The assessment has been set up in line with learning outcomes. Assessment for the two courses has historically differed. For the PG course assessment is all continuous assessment whereas the UG course is 50% continuous assessment and 50% final examination (Table 1).

The assessment needs to change for several reasons, primarily due to larger class size, aligning postgraduate and undergraduate assessment, and based on the insights from student satisfaction surveys. The survey findings indicate that significant percentage of students who responded were unsatisfied with the helpfulness of the feedback. This was markedly so for distance students. The focus of assessment revision is on developing ways to facilitate better student learning. Assignment 2 which covers the literature review on a specific topic is not seen as particularly valuable due to high incidence of plagiarism and it addresses only one of the *graduate attributes* - the use of academic literature to support decision making.

*Critical literature review*

The options to revise the assessment were looked into more detail. Peer review seemed to offer significant benefits to the students: more time spent studying, generation of appropriate learning activity, developing awareness of other ways a problem can be tackled, thus developing in students the ability to reflect on their own writing (Gibbs, 1999). This would be particularly beneficial for Assignment 1 (Table 1).

*Peer review and peer assessment*

Peer review and peer assessment are not recent assessment phenomena, although it appears that they are not particularly well established. For example, Cheng and Warren (1997, p. 234) cite Burnett and Cavaye who conducted a study of students involved in peer assessment as early as 1980. It is worth noting that the widespread use of information technology in preparation of electronic assignments, and email system in submission, has significantly affected the administration of the process. Some portals and web-based programs have been developed that facilitate the administration even more. One of those is developed at University of California, Los Angeles (UCLA).

For the review of literature, 11 articles were found that relate to peer review, peer assessment and calibrated peer assessment or review. Most articles included in the analysis applied survey and/or qualitative analysis of students attitudes about the peer assessment process, apart from two (Doiron, 2003; Russell, 2004) which were short and informative about the CPR method itself. Factors that the articles discuss are presented in Table 2. Factors have emerged in the process of reading the papers, where a clear mention of the influence on the effectiveness and/or success of the peer review process was stated. Following the completion of the reading and categorisation, the matrix was reorganised so that factors follow a logical order.

To summarise the findings, there are numerous advantages identified with the use of the method, including:

- creation of a community,
- improvement in higher order skills and writing,
- better understanding of the material,
- reduction in the marking toll on the instructor,
- proofs of reliability and fairness of the method,
- elimination of bias due to anonymity of the process,
- timely and relevant feedback,
- better understanding of the expected standards, and
- better performance compared to traditional assessment methods.

However, problems were also identified. They include:

- lack of student confidence in assessing others,
- ambiguous marking criteria,
- a laborious and time consuming process overall for the student,
- irrelevance of the feedback - more seemed to be learnt from marking others rather than from reading the feedback from peers on their own assignment,
- more time spent by the instructor on administering the method, training students in the use of the CPR tool and/or marking scheme.

Overall, it should be noted that very clear marking criteria need to be developed, and students need to be trained in using the criteria, which is why the calibration process is paramount. Ideally, the students would have an opportunity to build on the received feedback to improve their assignments. However, considering that the significance of the received feedback was not particularly high, it can be observed that most learning actually happened in the reflection on peers' assignments and giving feedback.

To conclude, based on previous research, calibrated peer review provides numerous and significant benefits to the students and the instructor. However, care needs to be taken with regards to making students comfortable with the process and the electronic tool used.

#### *Implications of the literature review for assessment revision*

As a completion of the feedback loop, which is suggested in the literature review, a short survey is planned in order to investigate the problems and challenges as well as the benefits of peer review exercise. The papers by Brindley and Scoffield (1998) and de Raadt et al. (2006) present surveys used to assess the impact of the exercise and student responses, and these questions will be used as a basis.

Assignment 2 will be eliminated, but the information literacy will be transferred to three other shorter assignments, referred to as three short tasks in Table 1. These will be one page long 'science magazine articles' on current issues, specifically relating to the themes of the syllabus. The intention is to eventually, depending on the initial results of the peer assessment, adapt short assignments to be peer assessed as well.

Literature review and previous experience of the colleagues indicate that the process as done via CPR tool offers significant advantages and would address most issues raised by previous coordinator of the course. However, care will need to be taken in training students to use CPR as advised by literature.

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<b>Task</b>	<b>PG % of total mark</b>	<b>UG % of total mark</b>	<b>Details</b>
Class exercise	10%	10%	Participate in a class based analysis and risk rating exercise completed in groups. All marks in group are the same
Assignment 1	30%	20%	Analysis of a work site or occupation (the choice of case setting left to the student)
Assignment 2	25%	20%	Report on a topic from the list supplied, based on scientific literature max 2000 words
3 short tasks	35 %	n/a	Short essays – topics to be supplied during the session.
Exam	n/a	50%	A 2 hr open book exam

**Table 1: Comparison between the assessment tasks for PG and UG course**

	Doiron (2003)	Prichard (2005)	Russel l (2004)	Pelaez (2002)	Wolfe (2004)	Furman & Robinson (2003)	De Raadt et al. (2006)	Cheng & Warren (1997)	Gibb (1999)
Peer review					X				
Peer assessment					X			X	X
Calibrated peer review/assessment	X	X	X	X		X	X		
Reliability	X				X		X	X	X
Validity	X	X							
Economical/time consuming		X	X			X	X		X
Fairness	X	X		X	X		X	X	
Relevance									X
Audience		X			X		X		X
Rigour (less)	X						X	X	X
Broadness of application (level, class size, level of English)		X	X	X				X	
Student bias (Anonymity, lower rating than tutor, but higher of own essays)	X	X		X			X	X	
Timely feedback	X	X			X		X		X
Usefulness of feedback		X			X		X		X
Instructor feedback /moderation				X	X		X		
Timely/ahead submission					X		X		X
Demanding on student	X	X				X		X	
Consistency in marking		X					X		
Ease of use/training in use		X			X	X	X	X	
(Problematic) marking scheme		X					X		
Student training in marking		X	X	X	X			X	
Developing higher order skills	X		X	X		X	X	X	X
Writing skills		X				X			
Understanding of the material		X	X	X			X	X	
Understanding of the standards expected					X				X
Performance compared to trad. assessment			X	X					X
Creating a community					X		X		

**Table 2: Factors affecting peer review/assessment as addressed by different author**