

Main Project: Enhancing Teaching and Learning through Assessment

Sub-project: Enhancing teaching and learning in group projects through poster assessment

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Background

In our Optometry programme, Project is a 6 credit subject commencing in Year 3 (Project 1) and finishing in Year 4 (final year) (Project 2). Three students form a group and each group is supervised by a supervisor. The assessment of this subject consists of two components, one in each year — a literature review (Year 3) (30%) and a final report (Year 4) (70%). Both pieces of work are marked by the supervising supervisor. For each component, each student is required to submit a draft to allow his/her supervisor to give feedback to the student to help the student to improve the final product. This assessment model has given rise to one main concern – different supervisors providing different levels of assistance to their students.

Aims and Objectives

The aim of this project is to lead the student through a research project, from problem identification to the production of a research report. The original learning outcomes from this subject are that the students will be able to:

1. carry out an initial review of a simple research topic;
2. produce a preliminary project proposal;
3. critically review the literature relevant to the approved project;
4. define and refine project aims;
5. propose an experimental hypothesis, and develop a protocol to test that hypothesis;
6. carry out the data collection in regard to a simple research topic;
7. prepare and submit a Project Report.

Furthermore to:

1. determine, from students' perspective if the additional assessment component, poster assessment, is useful to facilitate learning;
2. explore how can poster assessment be improved to enhance learning;
3. determine if self-assessment and peer-assessment can complement each other to further enhance student learning.

However, in line with PolyU's Strategic Objective 1.1 "Academic departments and relevant centres to review and strengthen curricula, teaching and assessment methods, and to ensure the inclusion of components that could help students to attain the qualities listed in the objective", we propose to change the existing assessment model to a more student-centred exercise to achieve the following objectives (which will be added to this subject in the next academic year):

1. provide opportunity for students to conduct research in a selected area, from problem identification (literature review), plan and conduct an experiment, to the production of a report;
2. encourage team work;

3. encourage communication between project groups to broaden perspectives;
4. encourage autonomy in learning;
5. enhancing learning by allowing ownership of students' work;
6. encourage creativity and reflectivity;
7. provide opportunity for summarizing complex material into easily understandable form by applying visual and layout skills;
8. provide opportunity for self- and peer-evaluation;

To achieve these objectives, changes are proposed as follows:

- i. Literature Review (Project 1);
- ii. A4 size Poster;
- iii. Project Report (including group contribution) (Project 2).

The reasons for the proposed changes are:

- a. Items i and iii require a lot of input from the supervisors so it is difficult to see the student's own effort. Input from supervisors can also vary significantly among groups;
- b. An attempt to move towards more student-centred learning;
- c. The main reason for using poster assessment is to allow constructive alignment of the objectives, learning method, and assessment methods of this subject, and also poster assessment can/will:
 - encourage autonomy;
 - encourage reflectivity and creativity;
 - encourage students to learn to organise and reconceptualize their work into an easily assimilable form and thus gain a deeper understanding;
 - allow for peer assessment;
 - allow students to know and understand what and how other students are doing when tackling their work, respectively.

Poster Assessment

Three (average) grades will be obtained for each poster:

1. Teacher assessment (one teacher, PC);
 2. Peer assessment (50% of the students)*
 3. Self assessment (before peer assessment & after peer assessment);
(to determine if peer assessment (after seeing what other students have done) would affect their self assessment).
- (i) Each student will be required to assess about half of the posters produced. That is, 50% of the students will assess posters from 4 randomly selected groups of students (each group consisting of 3 students) and the other 50% will assess those from the remaining 5 groups of students. They will NOT assess posters from their own group (apart from their own for self assessment). This is to ensure that the students will be exposed to a wider range of topics and hence their knowledge content.
 - (ii) All posters will be graded blind to minimize bias, and will be compared to the teacher's grades. If a significant difference is found between the teacher's and a student's grade of a poster, the

teacher will discuss the grade and go through the poster with the student to obtain a compromise (this will also ensure that students will do their assessment properly).

- (iii) Self/Peer assessment will be carried out in a supervised session where students will grade the randomly selected posters on their own without discussion.
- (iv) At the completion of this assessment, students' perception of the efficacy of poster assessment will be evaluated.
- (v) A prize for the best poster (pending approval).

Items (ii) & (v) will help to encourage students to do their peer assessment properly

Preparatory Sessions

These meetings will be held with students to:

- determine weighting of poster in Project assessment;
- determine weighting of teacher to peer assessments;
- determine the assessment criteria and rating checklist by discussion (trial run) on effective and ineffective examples of posters;
- go through guidelines on how to design posters;
- practice self and peer assessment.

To minimise disagreement between students, there will be a need for 'training sessions' on poster grading. In view of the lack of resources, for this pilot attempt, only one teacher (PC, the subject coordinator) will grade all the posters, but all students will be 'trained' to grade posters, as peer and self-assessments:

- are important learning processes;
- help critical reflection (as they have to evaluate own and other students' work);
- help students to learn responsibility towards others via assessment;
- help students to learn to make critical judgments and assess others work.

Schedule of Activities

	2003				2004						
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
Implement poster assessment (preparatory meetings)	*	*						See Note			
Recruit project assistant				*							
Literature search				*	*	*	*	*	*	*	
Design questionnaire/interview questions						*	*				
Sending/collecting questionnaire								*			
Data entries, analysis and write up results (questionnaire)								*	*		
Interview students								*	*		
Data entries, analysis and write up results (interview)									*	*	
Compile posters in a handbook for documentation								*	*		
Reports (including detailed procedures of the use of questionnaire and focus group interviews)										*	*

Note: Submit poster/self & peer assessment

Evaluation

1. A questionnaire will be used to collect students' feedback on the usefulness of poster assessment and how it can be improved.
2. Focus group interviews will be conducted to discuss/clarify issues raised in the returned questionnaires and for exploring in depth other issues not raised in the questionnaire, e.g. suggested weighting of each component

Dissemination of Results

Results obtained will be disseminating through sharing sessions organized by the umbrella project, conference, and the (umbrella) project website.