

# A pilot study investigating students' understanding of marking criteria and its influence on learning.

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## Introduction

Assessment *for* learning aims to engage learners in the assessment process and enhance their understanding of the purpose of the assessment method and of the knowledge, skills and/or attitudes that are being assessed. A method of enhancing student learning is to engage them with marking criteria, and this has been found to significantly improve grades given by lecturers (Rust 2003). This is attributed to the issues of tacit knowledge and explicit knowledge being addressed.

The BSc Physiotherapy programme validated at Cardiff University in 2007 incorporates a formative assignment at level 1 which aims to provide students with feedback to enhance and direct further learning.

The aim of this study was to engage students with the marking criteria whilst writing the formative assignment and test whether this improved both their understanding of the marking criteria and/or the grade awarded in the subsequent summative assignment.



## Method

The study adopted a prospective longitudinal same subject design. The sample consisted of a cohort of 87 undergraduate physiotherapy students. The procedure was as follows:

- All students were informed about the formative assignment including the topic area (physiological knowledge of bone healing), and engaged in writing skills activities including writing groups.
- Students were given a verbal and written explanation of the study and asked to sign a consent form if they were willing to participate.
- Students completed a questionnaire rating how much they understood each of the four sections of the marking criteria (identical for both assignments), and indicating the grade they felt should be awarded for each section in order to help them actively engage with the criteria (see Table 1).

## Method

**Table 1 The questionnaire**

Section	Grade (A+ to F)	I understand the marking criteria (please tick one statement for each sub-section)				
		Strongly Agree	Slightly Agree	Neither agree or Disagree	Slightly Disagree	Strongly Disagree
Sources of information and referencing						
Content and Organisation of Material						
Analysis and synthesis of information						
Grammar and presentation						

4. Following marking by academic staff, students were given detailed individual feedback in relation to the four sections of the criteria.

5. Stages 1 – 4 were repeated for the summative assignment. The topic was a reflection on what they had learnt about bone healing, team-working, communication and essay writing in relation to the formative assignment.

5. Data was processed by converting understanding descriptors to an ordinal scale as follows:

- 1 = Strongly disagree that they understand criteria
- 2 = Slightly disagree that they understand criteria
- 3 = Neither agree nor disagree

4 = Slightly agree that they understand criteria

5 = Strongly agree that they understand criteria

6. Data analysis was carried out using Wilcoxon signed rank test. Significance level was  $p \leq 0.05$

## Results

92% (n = 80) of students completed at least one section of the questionnaire for the formative assignment and 86% (n = 75) completed at least one section of the questionnaire relating to the summative assignment. Table 2 indicates the change in students understanding of the marking criteria

**Table 2 Median score for understanding of marking criteria**

	Formative assignment	Summative assignment	P value
Referencing	2	4	< 0.001
Content	2	4	< 0.001
Analysis/Synthesis	2	4	< 0.001
Grammar/Presentation	1	4	< 0.001

For all sections of the marking criteria, students demonstrated significant positive changes in their understanding of the criteria.

The percentage of students achieving grade B and above was used as the indicator for improvement in grade, see Table 3.

**Table 3 Percentage of students achieving grade B or above**

	Formative assignment	Summative assignment	p value
Referencing	47.13%	56.32%	< 0.001
Content	65.52%	58.61%	0.650
Analysis/Synthesis	54.02%	47.13%	0.477
Grammar/Presentation	59.77%	95.62%	0.035

It can be seen that significant improvements in grades occurred only in relation to the referencing and grammar / presentation sections

## Discussion

This study indicates that engagement of students with marking criteria improves their understanding of those criteria which may be due to addressing tacit and explicit knowledge. Alongside this positive change, significant improvements were also observed in grades for grammar/presentation and referencing in the summative assignment.

Grades worsened slightly for the content and analysis / synthesis sections which may be due to the content and nature of the assignments being different. This indicates learning of generic rather than content specific writing skills. It is possible that further engagement with marking criteria, e.g. workshops having marked sample assignments, as in Rust (2003) need to occur with each assessment to enhance learning.



## Conclusion

Engaging students with marking criteria improves their understanding of the criteria and improves generic writing skills, but not content specific writing skills.

Further research is needed into methods of engagement with marking criteria to enhance student learning through assessment.

## Reference

Rust C., Price M. and O'Donovan B. (2003). Improving Students Learning by Developing their Understanding of Assessment Criteria and Processes. *Assessment and Evaluation in Higher Education* 28 (2) 147 - 164