

Critical Reflection: the development of a rubric for capture and assessment

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Keywords: *assessment, critical reflection, grading schedule, group work*

Introduction

A small-scale investigation was conducted with a group of postgraduate students taking an Economics module in which they were asked to record, electronically, their reflections of participating in an assessed group project. This paper is itself a reflection – a reflection on the experience of conducting that investigation, a chief outcome of which was the development of a set of grading criteria that may be useful for assessing the individual critical reflections that are common in groupwork assignments.

Motivating the Assessment of Critical Reflection

Participating in a group project enables students to collaborate through collectively sharing their knowledge, skills and experience: the ability to collaborate is considered to be a necessary employment skill (Fallows and Steve, 2000).

A group project can arguably contribute to ‘deeper’ learning of particular subject matter (Entwistle, 2000) and a central feature of deep learning is the ability to extract/construct meaning from what is being taught. This occurs as students link new knowledge with previous knowledge and construct ‘newer’ knowledge in the process. It is this process of constructing learning that enables students to develop critical reflection skills as they build knowledge by ‘hypothesising, questioning, investigating, imagining and inventing’¹. (Biggs, 1993). Therefore, if the goal of assessment, in this case, is to measure what has been learned ‘deeply’ and critical reflection is considered to be one of the outcomes of deep learning, then critical reflection itself can itself be located and assessed.

Furthermore, if critical reflection can be effectively assessed, then it follows that consideration should be given to developing a means of grading the quality of that critical reflection. This is because it is often difficult for the lecturer to mark objectively the contribution of an individual within a group project. Nordberg

¹ See A classroom example of Constructivist teaching in “Constructivist Teaching and Learning”, SSTA Research Centre Report available online at <http://tinyurl.com/c5puyf9>

(2007) explains that some lecturers attempt to address this problem by requiring students to submit team diaries that record individual contributions. However, this increases the volume of material that the lecturer has to mark.

The Context: module and student diversity

The experiment was based on a sample of post-graduate students studying ‘*Emerging Markets in the Global Economy*’. The group presentation requires students to discuss an academic paper. Most of the students on the module are international students, in this cohort, for example, from Germany, Mexico, Nigeria, Nepal, Norway and Syria. A challenge to structuring learning events in this module is to match teaching to the diversity of students’ learning processes and expectations (Shoderu, 2008). Furthermore, if one accepts the literature on the cultural biases of ‘learning styles’² (itself a contested construct) then as Sims(1998) emphasised, the importance of matching teaching styles to learning styles increases when dealing with diverse populations.

Pedagogical Approach to Critical Reflection

Critical reflection includes the process of revisiting a task in order to draw meaning from past events for the purposes of personal development (Daudelin,1996). Schon (1983) discussed the value of ‘*reflection on action*’, where reflection after an event has taken place³.

To manage the diversity of students’ expectations of the module and to prepare them for the group assessment, the following pedagogical approach was adopted, as in Figure 1, below:

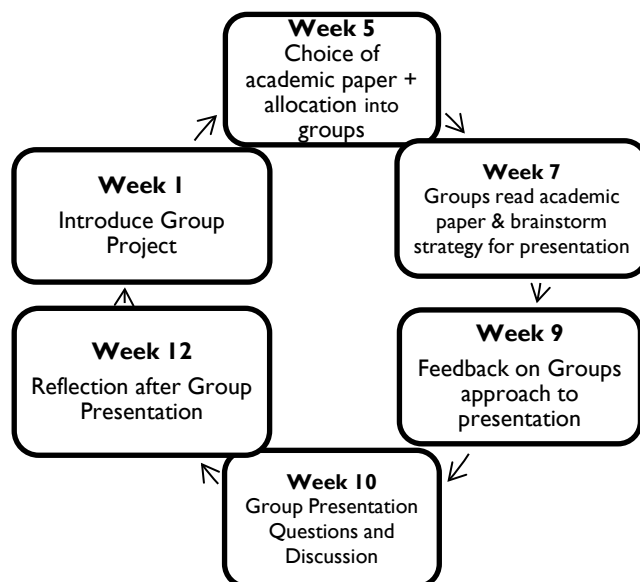


Figure 1: Cycle of Delivery of Teaching, Learning and Assessment of Group Projects

² See, for example, Nisbett (2005)

³ According to Schön (1983), “reflection in action” is the more expert form of reflection, the more novice approach usually requires just “reflection on action”. Reflection in action refers to knowledge & judgements gained in the process of carrying out tasks.

The investigation was carried out in Week 12 by asking students from different groups to critically reflect on their experience of doing a group presentation and to record their reflections electronically using *Audacity* – a free software application that provides access to simple recording/playback of voice input. The students were made aware from the outset that there would be no additional marks for participating in the group experiment. Three of the sixteen students volunteered to take part⁴.

In order to then teach critical reflection, a new learning space was created on *WebLearn*⁵, where the three participating students were provided with a short hand-out on reflective practice. The aim of this hand-out was to provide them with initial background and acquaintance with the method of undertaking reflective practice. Next they were given instructions about how to download the *Audacity software*, record their reflections and save it as an audio file. Finally, instructions were provided on how to upload their reflections onto *WebLearn* via the assignment tool.

The students were asked to critically reflect on their group presentation by answering the following questions:

- How did your team plan the group presentation?
- What worked well during the group presentation?
- What did not work so well during the group presentation?
- If you had to do the presentation again, what would you have done differently?

The rationale for asking individual students to reflect in this way is attributed to Boud *et al* (1985) who argued that critical reflection should be structured, to enable students to learn from the experience of reflection. The advantage is that it gives the student a clear, objective context within which to carry out their personal reflections.

Results of Critical Reflections: Analysing Students' Responses

The analysis of the three students' responses to the four reflective questions⁶ showed that each student's reflection was based on their own experience of participating in their respective groups.

⁴ This investigation was carried out as part of my own module assessment in Web-Based Learning & Teaching. The assessment did not specify any criteria with regard to the number of students who could take part in the investigation. The advantage of having a small number of participants enabled me to manage the process.

⁵ Each of the three students was given unique a username and password to preserve anonymity. Using a unique learning space ensured that their participation did not interfere with other module platforms on *Weblearn* or *Evision*.

⁶ The students' responses were transcribed, from which was extracted the essence of their reflections for analyses. Extracts of these responses were presented at the LondonMet Learning and Teaching Conference (2011) and can be obtained from the author.

All groups had divided the paper they were to present into different sections, as listed in the assessment criteria, as follows.

In student_78's group, the allocation of the specific section to a particular team member was based on their discussion on the specific skills required in presenting that section of the paper.

However, in student_77's group, they decided to organise the presentation according to the assessment criteria.

Student_76 considered the whole process of participating in the group project as a learning event and not just an assessment task. Reflection on learning from others was considered a benefit of the group project. Another benefit cited was the development of a collaborative spirit among team members.

Student_77 reflected on all team members being accessible to one another through emails or phone. This enabled them to be on the "...same platform of understanding" during the group's presentation.

It is of interest to note the students' responses to the weaknesses of the group presentation. The responses from student_76 and student_77 respectively were based on their internal perception of what makes a good presentation. For instance, student_77 reflects that holding "...a printed set of slides and our own notes..." made them appear to be more in command of the material. Student_76 reflected on issues of conflict arising from differences of opinion on the presentation's content. This reflection underscores the observation by Jacques (1991) that problems in group dynamics may exist. In contrast to the other students, student_78 linked the weakness of the presentation to failure to achieve the assessment criteria, that is the time taken to complete the presentation.

The responses highlight what the students as individuals have learned from the group presentation. It is worth noting that that they have learnt from the weaknesses and not from the strengths of the presentation.

To summarize their reflections, they concluded that it was good practice:

- for the group to read the entire paper rather than split the paper into sections at the outset. This enabled the group to gain an overview and insight of the whole paper;
- To not hold lots of notes during the presentation;
- To rehearse before the actual presentation in order to address potential weaknesses.

Reflections and Development

The experiment introduced the students to the 'audacity' tool as the medium for recording their reflections. Using technology assisted in engaging students with the practice of critical reflection. However, only two out of three students were able to use *audacity*. In the future, students should be provided with a number of options for recording reflections such as blogs, you tube, podcasts and mobile phones as tools for recording their reflections.

Additionally, students need enough time to undertake the exercise in critical reflection, allowing them to become conversant with critical reflection. This can be implemented by giving students the opportunity to practise critical reflection as a formative assessment before the actual assessed task. Miller *et al* (1998) suggests that such practice will enable the lecturer to become aware of potential complications.

Conclusion

The key benefit of this experiment is the development of a grading schedule for assessing and marking critical reflection, set out as Table I in Appendix I. It can be seen that a student who obtains a grade below 50% is not able to articulate an answer to any of the four reflective questions set. A score between 50% and 69% is more specific in identifying how the group task was organised, its strengths and weaknesses and demonstrates that the student is able to reflect on what has been learned and how this will produce a change in future practise. Students who score 70% or above demonstrates all the above but also shows a deeper level of engagement by reflecting on how their skills developed through the task and how the group dynamics changed as their knowledge of the group task became clearer.

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Biographical note:

Helen Solomon is a Senior Lecturer in Economics at the London Metropolitan Business School. Her main research interests are in macroeconomics, shadow economy, emerging market economies and applied time series analysis. She obtained her MSc. and PhD in Economics at the University of Essex, where she taught macroeconomics and quantitative methods prior to moving to London Metropolitan University.

Appendix I

	How Did You Plan Your Presentation	What worked well during the presentation?	What did not work so well during the presentation?	What would you have done differently?
70% and above	As below + evidence of deeper engagement, e.g. types of skills needed	As below + deeper reflection on why the factors identified worked well by linking to aspects in the group dynamics and quality of presentation.	As below + deeper reflection on implication of the weaknesses on the quality of the presentation.	Links clearly what could have been done differently to the presentation weaknesses.
50%-69%	As below but provides insight on other criteria, e.g. assessment criteria	Clearly identifies strengths of the presentation.	Clearly identifies weaknesses of the presentation.	Clearly identifies different alternative courses of action.
Below 50%	No clear idea of how the presentation was planned.	Difficulty in describing what worked during the presentation. Does not answer the question.	Difficulty in describing what did not work during the presentation. Does not answer the question.	Does not clearly describe what would have been done differently.

Table 1: the grading schedule developed to assess critical reflection