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A social constructivist assessment process model: how the research literature shows us this could be best practice

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Introduction

It is generally accepted in the literature on learning and teaching (Brown and Knight, 1994) that “assessment is at the heart of the student experience” (p1) and probably the single biggest influence on how students approach their learning (e.g Ramsden, 1992; Gibbs, 1992; Brown G et al, 1997). But there is also a wealth of evidence that current practice is seriously deficient in a host of ways – ‘broken’ in the words of Race (2003). In the UK, assessment practices have consistently been one of the weakest features identified by the Quality Assurance Agency in subject reviews across the disciplines. Knight has described assessment as “the Achilles’ heel of quality” (2002a) and accused summative assessment practices of being “in disarray” (2002b). This is not a situation unique to the UK and in the US, for example, assessment practice has also been seriously criticised (e.g. Angelo, 1996).

Whether the problem is lack of reliability in marking practices (e.g Laming, 1990; Newstead and Dennis, 1994; Webster et al, 2000) or lack of student understanding of what is expected of them (O'Donovan et al, 2001), one of the key issues underlying problems with assessment practice is that to truly understand the requirements of the assessment process, and the criteria and standards being applied, requires tacit as well as explicit knowledge (O'Donovan et al, 2004).

Some might like to believe that the problems for the student in acquiring the necessary tacit knowledge have also been worsened by the move to a mass higher education system in the UK, with the huge increase in student numbers and concomitant drop in the unit of resource. It is certainly possible to speculate that in much smaller, more intimate classes and with greater tutor availability for individual tutorial discussion, the acquisition of tacit knowledge might have been easier and quicker. But in the absence of any hard evidence to support this view, the authors are healthily sceptical as to what degree this actually ever was the case.

The need for tacit as well as explicit knowledge, in order to understand and apply assessment criteria, is also equally true for tutors as it is for students. A significant reason for lack of reliability in marking is that tutors have, and apply, different implicit criteria, as well as applying different weightings to, and different interpretations of, the explicit criteria (e.g. Lea & Street, 1998; Saunders & Davis, 1998; Webster et al, 2000), “Different assumptions about the nature of writing, related to different epistemological presuppositions about the nature of academic knowledge and learning, are being brought to bear, often implicitly, on the specific writing requirements of their assignments” (Lea & Street, 1998, p160).

It is the contention of this paper that many of the problems in current practice could be overcome, and the student learning experience greatly enhanced, if a social constructivist approach is applied to the assessment process. A social constructivist view of learning (Vygotsky, 1962, 1978; Bruner, 1986, 1990) argues that knowledge is shaped and evolves through increasing participation within different communities of practice (Cole, 1990; Scribner, 1985). Acquiring knowledge and understanding of assessment processes, criteria and standards needs the same kind of active engagement and participation as learning about anything else. This paper will describe the various stages of a social constructivist assessment process model, for both students and staff, and provide supporting evidence from the research literature for its potential effectiveness, and practical ways of implementing it.

Essential pre-requisites

Constructive alignment

A vital pre-requisite to creating a constructivist assessment process is that the course is 'constructively aligned' (Biggs, 1999). By this, Biggs means that everything in the curriculum - the learning outcomes, the learning and teaching methods, and the assessment methods - should follow on, one from another, and be seamlessly, demonstrably interrelated. It follows, therefore, that an essential element in achieving a constructively aligned course is to have clear and explicit learning outcomes.

Explicit assessment criteria

Linked to explicit learning outcomes, a further essential requirement of a constructivist assessment process is to have clearly defined and explicit assessment criteria. This is obviously not a new idea and is already considered good practice. There are some published cases where this explicitness has gone beyond criteria for individual courses to the creation of assessment criteria grids for common use across programmes, departments and even institutions (Morgan et al, 1996; Price & Rust, 1999; Elander, 2002; Hornby, 2003). Unfortunately, but not surprisingly, the creation of such grids alone has been shown not to actually create common standards among tutors (Price & Rust, *ibid*) or greater understanding by students (O'Donovan et al, 2001) unless they actively engage with the criteria in some way, hence the need for the process model.

The model

Engaging with criteria

A social constructivist approach to achieving meaningful understanding of assessment requires some kind of active engagement with the criteria by both tutors and students. For students, involving them in a marking exercise where they actually use the criteria in marking sample pieces of work, and then discuss the results both with other students and tutors has been shown (Rust et al, 2003) to result in statistically significant improvement in the students' subsequent work. Peer marking of actual student work has also been shown to have similar results (Forbes & Spence, 1991; Hughes, 1995; Cohen et al, 2001; Rust, 2002).

For tutors, initial discussion with peers about the meaning of the criteria, further discussion to refine their understanding after some marking has been undertaken using the criteria, and then moderation discussions after all the marking has been completed, has been shown (e.g. Saunders and Davis, 1998), over time, to increase common understanding and result in better standardisation of marking. For tutors, as for students, the key is active engagement. Simply being given a model answer, or a marking guide, or a set of criteria by the course or module leader will not in itself ensure a common informed understanding.

Creating criteria

It might appear to logically follow from the argument to engage student with criteria that it would help if they were involved in the original creation and selection of the assessment criteria. At least one study (Orsmond et al, 2000) has surprisingly suggested otherwise, apparently finding that “students may be less able to discriminate between individual marking criteria which they have constructed compared to marking criteria that have been provided” (p23). However, whether there is an intrinsic problem in students deriving their own criteria or a specific problem with the way it was carried out in this particular case will require further and other studies. There may, of course, be a more prosaic logistical reason as to why students setting criteria may not be a good idea in some cases that as the size of the class rises it may just become practically impossible.

For tutors, collectively creating and deciding on the assessment criteria rather than having them given by a course or module leader would arguably be a sensible start to the socialisation process as this will help to achieve shared understanding and common standards.

Engaging with feedback

Of the whole assessment process, the research literature is clear that feedback is arguably the most important part in its potential to affect future learning and student achievement (Hattie, 1987; Black & Wiliam, 1998; Gibbs & Simpson, 2002). There is evidence that students appreciate this and want good feedback (O’Donovan et al, 2001; Higgins et al, 2002). But just as with assessment as a whole, there are many weaknesses and problems with feedback practice. One study (Maclellan, 2001) found that 30% of the students surveyed said they never found the feedback helped them and most said it helped only sometimes. This, coupled with the findings of an earlier study which found that feedback was often not understood (Lea & Street, 1998) might explain an even earlier study which found that students often do not read it (Hounsell, 1987). Another reason that would explain these results is that feedback often comes too long after the work has been done, when the students are no longer interested and have moved on. Other studies have also revealed other problems with feedback. Wotjas (1998) has shown that, when the emphasis of the marking is on the mark or grade, it may be perceived to relate to the student’s personal ability or worth as a person, rather than just to the individual piece of work, and in such situations poor marks can damage the student’s ‘self-efficacy’. While Fritz et al (2000) have shown that the feedback can have no effect at all and when asked

to repeat the same task later students largely repeated the task as they did it before, including the same mistakes.

A social constructivist approach to feedback requires that the students actively engage with the feedback. Sadler (1989) identified three conditions for effective feedback. These are (1) a knowledge of the standards, (2) having to compare those standards to one's own work, (3) taking action to close the gap between the two. The second and third conditions both require the student to actively engage with the feedback. "Students should be trained in how to interpret feedback, how to make connections between the feedback and the characteristics of the work they produce, and how they can improve their work in the future. It cannot simply be assumed that when students are 'given feedback' they will know what to do with it" (p78)

Two stage (or more) assignments involving redrafting in the light of feedback, whether tutor feedback or peer, is one way of achieving these conditions. And after the work has finally been summatively marked, whether a multi-staged assignment or not, a seminar/workshop activity might be used. One example of this which we have devised uses a checklist and pro-forma, the effectiveness of which we are currently researching. The activity involves the student engaging with their feedback both orally, through peer discussion (using the checklist), and then in writing (on the pro-forma), and having to derive conclusions about what to do differently in future. They are also given an 'A' grade piece of work to benchmark their own against. The students involved thought it was a beneficial process and although we only currently have speculative data, our early findings suggest there may have been some visible improvement in their subsequent work as a result. A further unplanned outcome has been some interesting and revealing feedback from the students on the marking and feedback provided by the tutors which is a subject we will return to.

Another approach, and one which may help with the self-efficacy problem, is to give the student only comments but no grade or mark when the work is initially returned. They could then be asked to identify from reading the comments what grade they think it has been awarded, based on what the comments say, and only be informed of the actual grade later when they have done so. This approach is supported by the findings of Paul Black (1998) who found that just writing comments on work, and not giving a grade, resulted in more learning. A variation of this approach is the process derived by Ramsey et al (2002) which involves the students in reflective self-assessment immediately prior to the return of the assessed work.

A third possible approach might be to give the students only generic feedback on the work of the class as a whole, highlighting common mistakes, things that were generally done well, etc. This might be especially appropriate if it means that feedback can be given quickly after the work has been done, while to provide detailed individual feedback would mean a lot longer time lag (and therefore have minimal effect). The student should then be encouraged to try and identify which of the generic feedback applies to them, and from that identify what they need to do differently next time. This approach could also be linked with the idea above of initially withholding the grade.

Helping it to work

It is possible that the application of this model may be resisted by at least some students. With the introduction of fees, and students increasingly seeing themselves as customers, paying for a service, a ‘consumerist’ attitude of “I’m not doing this, it is the tutor’s job,” might be taken by some. To try and prevent this happening we would suggest the following:

- Always explain clearly to the students why you are doing it and the pedagogic reasons behind the process
- Where possible, share research or evaluation evidence of its effectiveness
- Consider attaching assessment incentives (marks) to the activities, if appropriate
- Ensure that the university’s support for students’ Personal Development Planning (PDP) and associated processes, including the students’ recorded reflections, make explicit links to these assessment process activities.

Summary

Putting the various stages of the model together should result in a social constructivist assessment process which can best be summarised visually in the following diagram as two parallel ongoing cycles, one for staff and the other for students (Fig 1).

Fig 1

It is especially important to emphasise that the two cycles – tutor and student- should not be seen as separate but as two halves of one dynamic system, each informing the other, ideally at every stage, with common understanding being shaped and constantly evolving within a community of practice (see Fig. 2).

Fig 2

But if constant interchange between the two systems is not always going to be practically possible it should, at a minimum, occur at least twice. When the criteria are initially being engaged with, the emerging common understanding of the tutors needs to inform the way the assessment criteria are written and the marking exercise conducted with the students. Confusions and concerns raised by the students and identified at the marking workshop need to be fed back and further engaged with by the tutors. After the work has been marked, both the quality of the work the students have produced, and the students’ comments on the work and the way it was marked, and the quality of the tutor feedback raised at the feedback seminar/workshop should be fed back for consideration by the tutors. The latter is probably best done as part of the tutors’ initial engagement with the criteria next time around, when the module or course is next run.

If we accept a social constructivist approach to learning, it is the assertion of this paper that it makes no sense for us to treat assessment any differently from learning. Acquiring knowledge and understanding of assessment processes, criteria and standards needs the same kind of active engagement and participation as learning about anything else. This is

true for both tutors and students. The research literature is rich with examples of what a social constructivist assessment process model would contain and reasons why it would 'mend' much of what is currently wrong with current systems and could be considered best practice. But to be truly effective, the model needs to be adopted explicitly and wholeheartedly in its entirety, rather than as piecemeal initiatives.

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