

# Attitudes toward Peer Assessment in Initial Teacher Education Students: An Exploratory Case Study

Jennifer Bain, Goldsmiths, University of London

## Abstract

This paper explores the attitudes of Design and Technology (D&T) initial teacher education students toward peer assessment. Through a small scale case study, the research uses a quasi-experimental approach to examine participant's perception of peer assessment prior and subsequent to a set of experiential intervention activities that were designed to develop a democratic and dialogic conceptualisation of peer assessment rooted in critical pedagogy. It was hypothesised that exposure to these intervention activities might alter participant's perceptions of the peer assessment process. Findings from the research suggest this hypothesis to be accurate and appear to reveal a change in participant attitudes to peer assessment from one dominated by teacher-centred, or didactic, understandings to one where the role of student voice should be central. The subsequent interpretation and discussion seeks to illuminate the value of understanding how such an approach to peer assessment might help develop learners' growing ability to take responsibility for their own learning and contribute to developing D&T assessment practice.

(160 words)

**Keywords:** assessment, student-voice, peer, sustainable, democratic, initial-teacher-education

## Introduction

The research grows from the researcher's personal interest in how the experience of the student, or learner, might be improved. It seeks to establish 'Whether students' understandings of and attitudes to peer assessment are changed by exposure to a particular approach to student involvement in assessment?'. This 'approach' focuses on developing features of assessment that might be consistent with the principles of critical pedagogy, those that are rooted in dialogic interactions (Freire, 1973; Keesing-Styles, 2003) and seek to develop spaces and practices that nurture dialogue (Griffiths, 2003 and 2004; Leitch *et al*, 2005).

## **Methodology**

The most appropriate strategy for the research was deemed to be an exploratory single-case study, where the rationale for the single-case is revelatory (Yin, 1989). The researcher initially used a convenience sampling approach, selecting the D&T PGCE 2008 cohort at Goldsmiths, University of London, comprised of 52 students. The researcher then adopted a 'purposive' approach (Cohen, Manion and Morrison, 2003: 103), selecting 6 students for a group semi-structured interview.

The overriding decisions around data collection were based on the need to build as rich and meaningful a case study as possible. As such it was felt that employing more than one research method would also enhance rigour and avoid invalidation (Robson, 2002). Accordingly, questionnaires, given to participants shortly before and after exposure to the intervention activities, were considered a useful method to investigate user perspectives, attitudes and opinions of peer assessment (*ibid*). In addition, a semi-structured group interview was considered appropriate in order to provide more focused empirical data by getting participants to talk about their understanding, perceptions and experiences of peer assessment (Cohen *et al*, 2003). Both the questionnaires and interview schedule were piloted, then refined to ensure data collection was more closely focused on the primary research question (Robson, 2002).

Data analysis was concerned with organising and making sense of the data, noting 'patterns, themes, categories and regularities' (Cohen *et al*, 2003:147) in order to address the research question. The research used a wider ethnographic stance to coding (Robson, 2002), using the conceptual framework for peer assessment rooted in critical pedagogy (Bain, 2009), to develop a list of categories prior to fieldwork, whilst incorporating a grounded theory approach (Glaser and Strauss, 1967), to allow for themes to emerge from analysis of data. Subsequently, the coding categories used were:

- potential of peer assessment to benefit learners
- purpose/ role of peer assessment
- dialogic interactions/ role of student voice in peer assessment

## **Pre- Intervention Findings**

The initial questionnaire sought to collect base data on participant understandings of attitudes to peer assessment. Selected examples of data are presented to illuminate key findings.

On initial examination there appeared to be overwhelming agreement among participants that peer assessment was beneficial to learners, see figure 1.

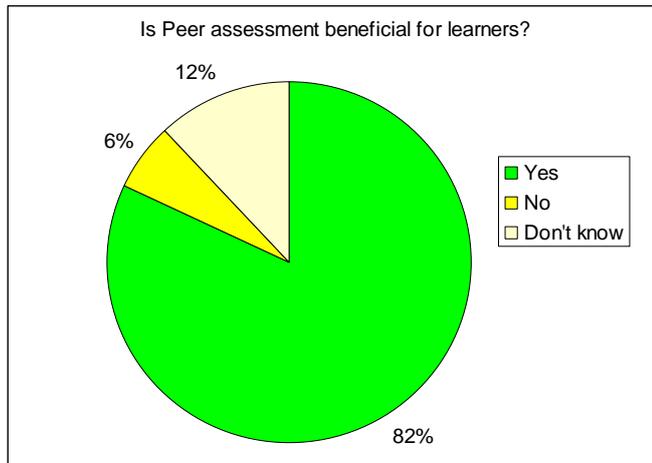


Figure 1: Initial Questionnaire – question 1 response

However, when asked to describe the potential benefits of effective peer assessment, Q2, few participants appeared able to demonstrate more than a surface based understanding of what these might be, with 76% of responses including mention of the importance of feedback, evaluation, useful comments from peers, or answers of a similar nature.

When questioned about assessment criteria, many participants appeared to have a rather straightforward approach to how these should be developed, see figure 2.

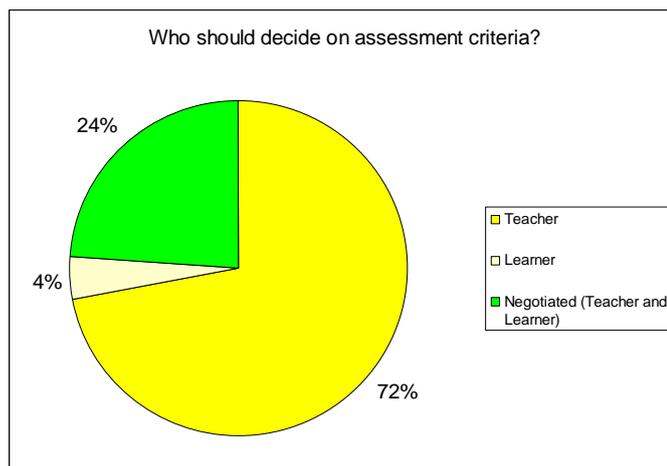


Figure 2: Initial Questionnaire – question 3 response

Most participants felt the teacher/tutor should decide assessment criteria, and when questioned on what they felt the most effective method of sharing criteria might be, the

majority of responses fell into three categories, see figure 3, that, again, appear to indicate a limited understanding as to how this might be done.

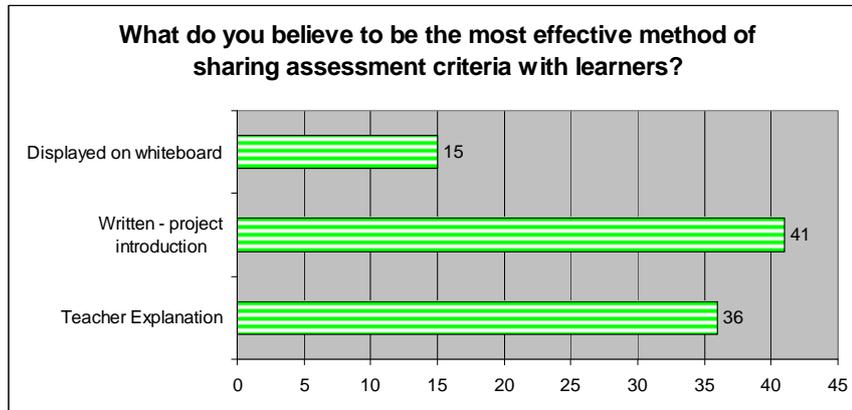


Figure 3: Initial Questionnaire – question 5 response

Perhaps of most interest to the researcher, was that the majority of participants (86%) felt that understanding of assessment criteria might be a pre-requisite for effective feedback from peers, Q6, identified by them as one of the main benefits of peer assessment. Yet, as indicated above, few appeared to link this engagement and understanding with how assessment criteria were developed and shared.

Although 62% of participants indicated that they had ‘little’ or ‘no’ ‘taught’ experience of peer assessment, Q7, most appeared to have quite firm ideas as to its primary purpose, as illustrated in the response to Q8.

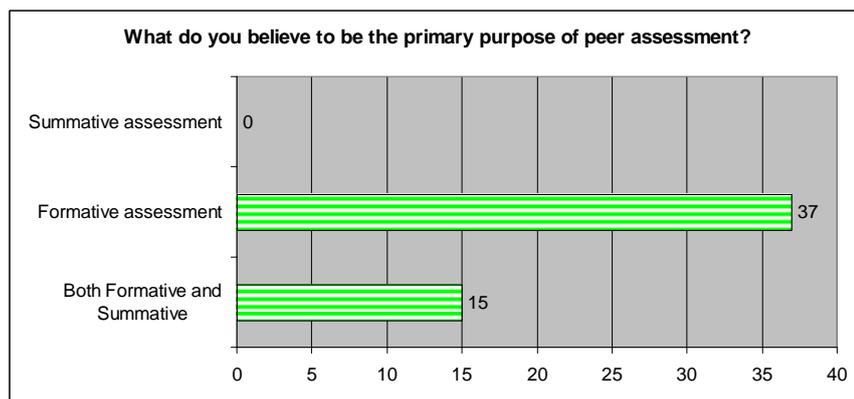


Figure 4: Initial Questionnaire – question 8 response

When the researcher started to code around the role of student voice, this started to reveal a quite comprehensive picture of where participants believed responsibility for assessment, including peer assessment, lay, typified by the following comment:

Initial Questionnaire Q9: Who do you believe should be responsible for assessing student work?

Participant I-24 Response: The teacher- but ultimately working with the department.

Most participants (86%) felt that they would be able to design and administer a peer assessment activity, Q11. While, interestingly, 78% indicated that learners did not need to be involved in the design of such an activity, Q12. When questioned about how such an activity might look, Q13, 44% of responses indicated that participants might most commonly employ a worksheet approach, supported by group discussion.

When asked to focus on their own learning experiences the participant responses appear to reveal several interesting contradictions. All participants indicated that they had experience of being assessed with and by peers, Q14. However, of responses to Q15 – Was your peer assessment experience(s) beneficial to your learning?, 58% responded positively, somewhat contradicting the response to Q1. When asked to outline why?, Q16, participants who responded positively to both Q1 and Q15 provided some interesting answers. Most appeared to value feedback from a source other than the teacher, the sense of empowerment the peer assessment brought, direct involvement in assessment and having a say (or voice). Illustrative of this was the following response:

Participant I-33 Response: having a say, having the chance to comment and be commented on, more honest feedback.

Those (42%) who responded positively to Q1 and negatively to Q15 also provided some interesting if apparently contradictory answers. Despite indicating in Q2 that peer feedback was of great benefit to learners it appears, that when grades were at stake, this feedback was of little interest. In addition it appears that, for many participants in this group, the teacher driven and 'tick box' nature of peer assessment reduced its value :

Participant I-50 Response: Paper based, tokenistic.

Participant I-5 Response: It was badly timed, when I was focused on improving my grade and needed feedback from my tutor on how to do that.

When questioned on assessment criteria, Q17, 100% of participants indicated that, in their experience, criteria were decided by the teacher. Further analysis of the data started to uncover some issues with the generic nature of the assessment criteria, Q18:

Participant I-4: Contradiction in the marking system, there were criteria but in reality it was marked by someone's opinion.

Lastly, 94 % of participants indicated in their response to Q20 that they had some reservations about their peer's ability to award marks or grades.

## **Intervention Activities**

The intervention activities were designed to help develop theoretical understandings of peer assessment rooted in critical pedagogy, and to provide the opportunity for students to experience this approach first hand. This democratic and dialogic approach to peer assessment is about students and teachers working and learning together in partnership and seeks to maximise the power of assessment as a means of directing student learning (Boud, 1995; Knight, 1995; Black and William, 1998 and Falchikov, 2005).

Accordingly, the intervention activities focused on an approach to assessment that promoted exploration of assessment criteria, active engagement with learning tasks, use of feedback, care in the learning dialogue used and access to peer support. The activities were consistent with Boud's (2002) notion of 'sustainable assessment' and offered students insights into what might be termed 'collaborative assessment' (Falchikov, 2001) or 'participative assessment' (Reynolds and Trehan, 2000). This type of assessment can benefit student's critical thinking and social skills, personal and intellectual development and understanding of the assessment process itself (Tan, 2007).

The intervention activities drew on Race's (1994) 'ripple' model of experiential learning. The model is based on the premise that the most effective form of learning is experiential, or learning by doing. Race emphasises, along with Kolb (1984), the importance of developing a sense of 'ownership' - a process that he describes as digesting. This culminated in a peer assessment activity stretching over four months, designed to have both a formative and summative focus.

Firstly, in seminar 1, the participants were introduced to the peer assessed learning task, 'Exemplification of Creative Process'. Through this participants were given the opportunity to develop a theoretical perspective on the value of the approach to peer assessment outlined above.

Seminar 2, one week later, gave participants the opportunity to share their reflections on the approach to peer assessment outlined in seminar 1. Learners and tutors were able to engage in 'reflexive and collaborative dialogue' (Hounsell, 2007: 106), agreeing the structure and timing of their peer assessment process. Participants were split into groups of six and were given the opportunity to negotiate draft assessment criteria. Both seminar 1 and 2 were considered as 'modelling', a feature of effective peer assessment that describes preparatory activities that allow students to develop assessment criteria

and encourage ownership of these criteria (Falchikov, 2007). Over the next three weeks the peer assessment groups were given opportunities to discuss and refine their assessment criteria before, in seminar three, agreeing a final set of criteria. Three months later the groups came together for a half day activity to share their work and receive feedback and grades from their peers.

### Post-Intervention Findings

Collection of post-intervention data focused on whether participant attitudes to and understandings of peer assessment had been changed by exposure to the intervention activities. Illustrative examples of data from the follow-up questionnaire and group semi-structured interview, collectively termed post-intervention data, are presented in an integrated way to illuminate key findings.

Initial analysis of the post-intervention data indicated that whilst some participant understandings of and attitudes to peer assessment appeared unaltered, many appeared to have shifted considerably. Whilst this was not unexpected, given the direct nature of intervention, analysis again revealed some interesting insights.

There was still overwhelming agreement among participants (100%) that peer assessment was beneficial to learners, Q1. However, many participants demonstrated a broader understanding of the potential benefits of effective peer assessment. Illustrative of this was the following response:

Follow-up Questionnaire Q2: What do you now consider to be the potential benefits to learners of effective peer assessment?

Participant FU-33 Response: It can focus on learning about learning, higher order critical thinking. Feedback is more meaningful because assessment criteria are 'real'. It can engage, motivate and empower learners.

Perhaps one of the most significant shifts in attitude was illustrated in participant responses to Q3.

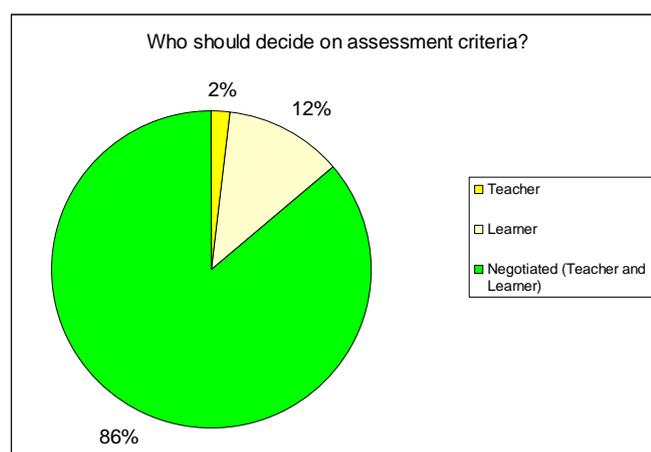


Figure 5: Follow-up Questionnaire – question 3 response

Post-intervention, 98% of participants felt that assessment criteria should be negotiated or decided by the learner, a shift from 28% pre-intervention. When this was followed up in the post-intervention interview, the shift appears to be attributed to participants experience in being involved in an authentic process:

Participant Int-1(5) Response: It just made sense for us as learners to be involved, because you then really understand why this thing [the learning activity] is being done, what you should learn from it and what you'll get feedback or marks for.

In addition, through their responses to Q4, Q5 and Q6, participants appear to demonstrate considerable progress in understanding the link between how assessment criteria are selected and shared and the way in which learners are empowered to learn. When asked if they felt being taught about peer assessment had been beneficial to them, Q7, 90% of participants indicated that it had, with most indicating benefits to both their learning and teaching practice.

Most participants appear to retain the belief that the primary purpose of peer assessment should be formative, although there is an 11% shift towards participants who believe it may have a dual purpose.

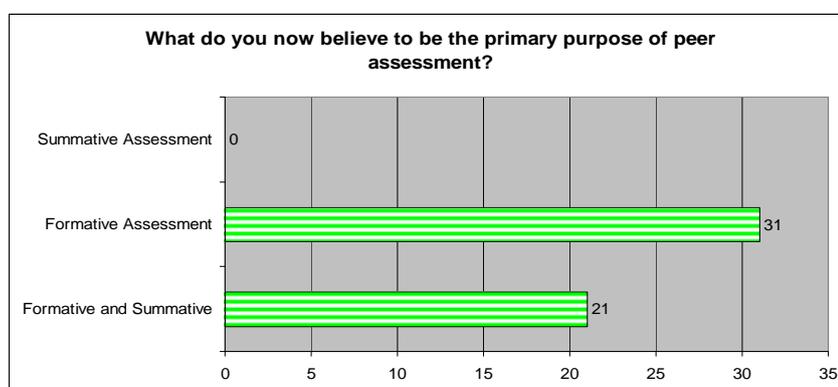


Figure 6: Follow-up Questionnaire – question 7 response

However, perhaps the most startling shift was in participant's apparent endorsement of a central role for student voice in peer assessment, typified by the following comments:

Follow-up Questionnaire Q9: Who do you believe should be responsible for assessing student work?

Participant FU-14 Response: The responsibility should be shared. Learners should have a strong say, particularly in formative assessment.

Follow-up Questionnaire Q10: What say should learners have on how and when they are assessed?

Participant FU-13 Response: They should be fully involved, understanding how, why and what is being assessed.

The majority of participants (80%) indicated that they now believed learners should have a role in the design of peer assessment activities, Q12. When questioned again about how such an activity might look, Q13, participant responses now indicated a wider range of approaches, for example, peer discussion groups, learning-buddies, role-play activities to develop confidence, with 76% of responses indicating a role for student voice.

When asked to focus specifically on the intervention activities, Q15, Was this particular peer assessment experience beneficial to your learning?, 100% of participants answered yes, with most participants able to articulate what they had found of benefit, Q16. Of particular interest were those who had appeared disenfranchised in pre-intervention findings, for example:

Participant FU-44 Response: It was real, simple as that.

When questioned specifically on their involvement in decisions around assessment criteria, Q17, 97% of participants indicated that this was of particular value. Furthermore, interview data highlighted that participants felt that this approach to developing assessment criteria might have the potential to personalise learning in an authentic way.

Interviewer: You were able to decide on assessment criteria to assess your creative process. Was this a good thing?

Participant Int-3(26) Response: What I didn't expect was that we might have the same overall criteria, but focus on things that really mattered to us, I suppose have different weightings to criteria. I knew I needed to develop the ways I shared my creative process... so we agreed that that would be a major focus for me, whereas [name removed] needed to focus on aspects of realising her designs and that was an agreed focus for her.

However, 94 % of participants indicated in their response to Q18 that they still had reservations about their peer's ability to mark work. When this was probed further during the post-intervention interview, participants indicated that they preferred their tutor to take responsibility for awarding marks:

Participant Int-3(26): ...you need some sort of confirmation of how good you are and, for me, that comes from your lecturers, teachers whatever. Maybe it's a reassurance thing but it's important that they give you a mark.

Lastly, when asked how this experience might impact on their D&T classroom practice, Q19, almost all participants, 86%, indicated that it had the potential to change their practice in a variety of ways, and, again, they flagged up a role for student voice in peer assessment as central to this shift in practice:

Participant FU-31 Response: It highlighted to me how passive I expect my students to be, just accept what I tell you. I will definitely involve them more in making decisions about assessment, peer and self.

## **Discussion and Conclusions**

This small scale study offers a number of insights into students' understandings of and attitudes to peer assessment. Pre-intervention findings showed that participants felt peer assessment to be of benefit to learning. However, they revealed the contradictory position that the D&T initial teacher education students find themselves in. When responding as teachers, the participant group appeared to reinforce the agenda of authority around assessment, the teacher is the one who knows, the learner is the one who listens (Freire, 1976; Boud, 2007).

However, as learners, their experiences as passive participants in peer assessment were highlighted as problematic. Their frustrations about the value of peer assessment were expressed through their concerns about the mismatch between tutor and student perceptions of assessment criteria (Hounsell, 2007). There seemed to be little experience of authentic dialogue around peer assessment and the consequence of this appears to be that participants struggled to see the value of such activities: unsure of what was being assessed, dependent on the tutor, seeking clues on how to succeed (Miller and Parlett, 1974).

Post-intervention data indicated a shift in understandings of and attitudes to peer assessment in several areas, most notably around a central role for student voice. Participants appeared to have a more integrated perspective as teacher and learner and highlighted the value of the intervention activities in developing their understanding of how negotiated, meaningful assessment criteria (Boud, 1995), had the potential to personalise learning. Many also valued the opportunity to engage in assessment that provided a more accurate representation of their knowledge and understanding (Brown and Knight, 1994).

Participants continued to express concern around their peer's competence in awarding marks (Fineman, 1981; Lapham and Webster, 1999), both pre and post-intervention.

Many of their post-intervention responses also indicate participants remain confused about how to relate formative and summative experiences, particularly when awarding marks or grades (Black and William, 1998).

In conclusion, it is asserted that there is evidence in this small scale exploratory case study that exposure to intervention activities, such as peer assessment rooted in critical pedagogy, has the potential to change D&T PGCE students' understandings of and attitudes to assessment. The evidence also suggests that participants would value the opportunity to introduce this kind of authentic and democratic assessment into their classroom practice and that it has strengthened their understanding of how a range of formative assessment opportunities might contribute to learner progression. The case study also serves to affirm that student reflection on assessment procedures is a necessary part of the learning experience, and that such reflection should be supported in our teaching practices in order to make sense of what has been learned (Race, 1994).

Lastly, the participant's concerns about innovative peer assessment practice are legitimate and real. However, this small scale study reinforces that, with careful preparation and explanation, the benefits of involving students in innovative peer assessment should outweigh the risks (McDowell and Sambell, 1999; McGrath 2001; Sinclair, McGrath, Lamb, 2000; Falchikov, 2005; Boud and Falchikov, 2007).

(2989 words)

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