The application of constructivist assessment practices in a teacher-training programme: a tool for developing professional competencies

Justin Rami, Francesca Lorenzi & John Lalor
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Abstract

Traditional forms of assessment such as essays and end of term examinations, are still widely used in higher education in Ireland as the sole assessment methods. These forms of assessment, while they may be valid and reliable methods for collecting evidence of acquisition of theoretical knowledge, they rarely afford students the opportunity to apply knowledge to key professional scenarios.
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Traditional forms of assessment such as essays and end of term examinations, are still widely used in higher education in Ireland as the sole assessment methods. These forms of assessment, while they may be valid and reliable methods for collecting evidence of acquisition of theoretical knowledge, they rarely afford students the opportunity to apply knowledge to key professional scenarios.

The authors draw on their experience as Lecturers and course designers for the module “Curriculum Assessment” which is offered to both traditional full-time undergraduates and part-time professional educators. This paper describes the introduction of an assessment portfolio designed with the aim of promoting the development of professional competence among student teachers and fostering professional development among more experienced teachers and trainers in relation to assessment theory and practice.

Introduction

The introduction of a new assessment format needs to be carefully planned and evaluated. The suitability of the assessment format should be evaluated in terms of the student population, the learning objectives and the learning context. However, it proposes that innovation should also be firmly grounded in the enhancement of the learning experience and the sustainability of such learning even beyond the academic context (Boud, 2000).

While it is acknowledged that lecturers and students engaging in portfolio assessment are treading unfamiliar territory that may lead to resistance, non-completion and student and lecturer overload (Tisani, 2008), the learning outcomes achieved through this form of assessment appear to out-weigh some of the common problems associated with this form of assessment. The structure of the portfolio for this particular module has allowed students to become assessment designers, markers, and self and course evaluators. After an initial unease with unfamiliar territory, the reproduction of authentic professional scenarios and the emphasis on critical application of theory has led to a shift in self-perception from student to teacher role among student teachers. More experienced teachers and trainers have also benefited from greater relevance of assessment to their professional needs and from the opportunity to apply theoretical knowledge to their specific context to develop their professional practice.
The research demonstrated that many traditional forms of assessment used in Higher Education often do not consider the application of knowledge to key professional scenarios even though they may be valid and reliable methods for collecting evidence of acquisition of theoretical knowledge. This research is based on the implementation of a portfolio based assessment approach to a teacher training module on Curriculum Assessment. Analysis of the data demonstrated that these students are now positively disposed to assessment in the context of teaching and learning.

**Context of the research and student profiles**

This research is based on a redesign of an assessment strategy for a module within a teacher education programme at Dublin City University, Ireland. The programme is delivered on a full and part time basis. Although the module outcomes are the same the student profiles differ quite considerably. In previous years this module was assessed using a final summative written exam. Although pass rates were quite high further evaluations discovered that the content of the module was not scaffolded with any other parts of existing knowledge. That is to say that students approached the assessment in the traditional mode of memorisation without much consideration to developing their own attitudes to assessment as a teaching and learning methodology. Our initial research showed us that there was an opportunity to redesign the whole module and accent the learning process more effectively.

Figure 1. below shows the breakdown of students studying the Curriculum Assessment module.

![Group breakdown](image)

Figure 1: breakdown of data sample (two cohorts)

Students studying the full-time programme follow the module as ES204. This programme is designed for learners who wish to work in the field of education and training. They are a large group of 75 full time students, mostly school leavers with 10% mature students. They have little or no experience of teaching or training or assessment design experience.
Conversely students studying the part time programme follow the module as ES222. They are mainly already working as NQTs (Non-Qualified Teachers) in adult and continuing education, as trainers in community settings, youth workers or working with people who have disabilities. Around 40% are working in the public or private sector training fields. These students join the course to support their continuing professional development with the provision of knowledge and skills to enhance their professionalism and help them gain a recognised qualification. They’re a relatively small group of post-experience mature students, all studying part-time (evenings and weekends). They all have professional teaching and training experience and some assessment design experience (some have administered assessment), it is also important to note there was a diverse range of experience of working with and designing assessment within the two cohorts. Figure 2 demonstrates that the age profile was quite varied.

![Student age profiles](image)

**Figure 2: Student age profiles**

The diversity within the cohort studying this module was reflected in their experience of using, designing and implementing assessments or assessment strategies. The following chart outlines the experience learners have had with curriculum assessment.
Figure 3: Part-time students’ experience of assessment in Education & Training

Figure 4: Full-time students’ experience of assessment in Education & Training
Figures 3 & 4 show the different levels of experience that the two cohorts had in relation to assessment. 24% of the part-time students had experience of marking and/or grading assessments as opposed to only 8% of the full-time group. Only 4% of the full-time students had any experience of designing assessments compared to 14% of the part-time cohort. Interestingly 24% in both cohorts had no experience of implementing assessment in education & training.

Research methodology

The authors of this paper view research as an integral part of teaching and learning. Therefore a constructivist approach to both teaching and learning and conducting research is essential.

Using a multi-method research approach the authors’ research was conducted using both quantitative and qualitative tools. A primary focus of the research used student reflection (reflective diaries) to generate relevant data suitable for triangulation; this was then coupled with observations of performance and behaviours and finally with online questionnaires and evaluations. Mixed methods design excels at bringing insights derived from diverse methods to the analysis of a given phenomenon. In this research, the indicators themselves, such as research diaries, observations and responses to survey questions may be examined and compared across the different respondents thus offering some kind of comparison. Mixed methods are therefore central to the development and testing of theory (Sieber 1973). It is through this mixed method approach that the concept of “triangulation” comes in. We have adopted the between-method triangulation that involves contrasting research methods, as in our research questionnaire and observation. Altrichter et al. (1996) contend that triangulation “gives a more detailed and balanced picture of the situation” (p.117). According to O’Donoghue and Punch (2003), triangulation is a “method of cross-checking data from multiple sources to search for regularities in the research data” (p.78).

Forming teachers: competence or competency?

The issue of teachers’ professional competence is a thorny one. While often presented in an unproblematic fashion, the concept of competence is closely related to core considerations regarding what the teacher role should and will entail in specific work environments. It is important to establish a link between the learning goals that should be pursued by teachers and specification of the professional profile of those suited to guiding the achievement of those goals. In a European context, the identification of common professional standards to facilitate work mobility has, to some extent, led to emphasizing more objectively observable and quantifiable characteristics of the teaching profession. This model has been driven by concerns...
with employability of graduates and visibility of institutions (Lemaitre et al., 2006) and has emphasised the efficient delivery of comparable learning objectives as a means to increase accountability. On the strength of this market-driven orientation, since the late 1960s and 1970s a competency-based model of teacher training has increasingly gained currency (Van Huizen et al., 2005). Competency or rather competencies constitute the skill base and essentially represent the technical dimension of the teaching profession. Lyotard warns against the risks of Universities becoming subservient to the best performativity of the social system (1992, p.48) and teacher education embracing a market driven orientation can irreparably lead to the narrowing of concept from teacher competence and equating it exclusively to a fragmented set of competencies.

Nel Noddings (2004, p. 161) argues that ‘it is not the job of teachers simply to secure demonstrable learning on a pre-specified set of objectives’ and that the teacher role cannot be reduced merely to a set of skills. Hogan (2004, p. 20) adds that teaching is to be understood as a ‘human practice, not just as a repertoire of competencies to be mastered, transmitted and shared’. Skills or competencies should be an essential component of teacher education but a more holistic approach should be taken to ensure that attitudinal and personal values are also cultivated. If with Schelter (1968) we espouse the view that teaching does require training in the ‘manner’ in which to teach, but also “intention” and ‘reasonableness’ we can go beyond the notion of competent teacher as skilled practitioner. The teaching profession requires principled action in order to respond to the uncertainty of teaching scenarios. The phronesis or practical wisdom in Aristotelian terms, is what is called for. Carr (1993, p. 254) claims that “teachers should be competent by virtue of their intelligent application of their knowledge and understanding in effective practice” and intelligent application encapsulates skills, reflection and commitment to the teaching role.

Pre-service teachers should be offered the opportunity to experience professional scenarios that - in addition to the development of specific skills helping them to function effectively in the day to day teaching activities - challenge their perceptions, foster awareness of their own values and cause attitudinal shifts. It is therefore important that pre-service teachers are introduced to scenarios that reproduce real life contexts that allow them to reduce the ‘practice shock’ (Van Huizen et al., 2005). Such learning scenarios should require them not only to perform skilfully but also to express their creativity, individuality and most importantly their principled judgement. Integrated learning environments and whole learning tasks replicating authentic situations (Janseen-Norodman, 2006) in a structured and sequenced fashion may serve this purpose. Assessment portfolios, provided that they are not constructed simply as a collection of artefacts assembled together (Tisani, 2008), but rather as a ‘purposeful collection of student work that tells the story of the student’s efforts, progress or achievement in a given area’ (Arter & Spandell 1992, p. 36) may be the most suitable form of assessment to develop knowledge, skills and attitudes progressively and reflectively at the same time (Regehr & Norman, 1996).
Revised Assessment model – Constructivist principles

Within the context of a teacher education programme there is a need for a dual emphasis within the teaching process and the learning process. Many teacher education programmes in Ireland have an over emphasis on substantial direct instruction in theory and practice, quite often without complementary opportunities for inquiry, discovery, or self-examination. This research examined how a content-heavy subject, ‘curriculum assessment’ could be delivered in a more learner centred format thus placing the emphasis on the learning processes, which in turn will aid the students to grasp the fundamental aspects of the module/subject content.

The challenge of redesigning a whole curriculum and putting the emphasis back on the learning process could be dangerous as the students may be come confused and could lose focus regarding the module learning outcomes. The overarching challenge constructivism presents to teachers and teacher-educators is the formidable task of translating a learning theory into a theory of teaching (MacKinnon & Scarff-Seatter, 1997: pp.38-55).

When redesigning the assessment aspect of DCUs’ ‘Curriculum Assessment’ module we examined how students had previously performed within the module. Student’s evaluations and past grades showed that many students simply reverted to how they were expected to approach assessments in the past. This was ‘learning by rote’, i.e.: memorising the module content and feeding this back during a written examination. In one sense this gets the students past the module, they attain the required credits, but the theory-into-practice aspect of this learning can be lost. How can they understand the module content through deep-learning and utilise this knowledge in their future workplaces as teacher and trainers. We looked at the literature around discovery learning, knowledge creation, experiential learning and especially at the work of people such as Piaget (1972) and Friere (1970). It became obvious that a constructivist approach to the assessment of this module may be the way forward.

Constructivism is an epistemology, a learning or meaning-making theory, which can pose an explanation of the nature of knowledge and how human beings learn (Cannella & Reiff, 1994: pp.27-38). It maintains that individuals create or construct their own new understandings or knowledge through exploring what they already know and believe as well the ideas, events, and activities with which they come in contact (Richardson, 1997, pp.3-14). As an approach to teaching, constructivism may be examined as much for what it is not as for what it is. It challenges what Oldfather, Bonds, and Bray (1994, pp.5-13) characterise as the default mode in education ‘an empiricist/reductionist approach to teaching and learning’.

The restructuring of the assessment mode for the module helps create a constructivist-learning environment that allows the lecturer to become a facilitator of learning as well as the leader in the process. Additionally this new dynamic also allows other learning theories to come into play, such as experiential learning, (Kolb 1984, Rogers 1964), freedom to learn (Rogers 1964, 1994), assessment through cooperation, (Vygotsky 1978), deconstruction of learning (Piaget 1972) self directed learning, andragogy (Knowles 1973: pp.350–352, 386) etc.

The constructivist-learning environment presents the learner with opportunities to help them build on prior knowledge and understand how to construct new knowledge from authentic experience. On this basis the redesign of the assessment
for this module needed to be practical and meaningful to all the learners. Our preliminary research showed that assessment was often viewed by students as a necessary experience from a progression aspect not a learning one. Conversely the new mode of assessment for the DCU module was about bringing deep and true meaning to the concept of assessment as a learning tool: assessment as learning (Black, Wiliam 1998: pp 7-74). In context of constructive alignment (Biggs 1999) the assessment should be at the centre of the experience. For Dewey (1916, 1938) knowledge emerges only from situations in which learners have to draw them out of meaningful experiences Further, these situations have to be embedded in a social context, such as a classroom, where students can take part in manipulating materials and, thus, forming a community of learners who construct their knowledge together. The obvious implication of Dewey’s theory is that students must be engaged in meaningful activities that encourage them to apply the concepts they are trying to learn.

Several authors cite the importance of teacher educators' modeling constructivist approaches that engage students in interdisciplinary exploration, collaborative activity, and field-based opportunities for experiential learning, reflection, and self-examination (Kaufman, 1996; pp.40-49 Kroll pp.63-72 & LaBosky, 1996). After all, today’s students are tomorrow’s teachers.

**Using portfolios for assessment**

Following on from constructivist principles the method of assessment used within the redesigned ‘Assessment’ module was portfolio assessment. The literary meaning of the term “portfolio” is a collection of past work. However, in the context of assessment, portfolio does not represent only a mere collection of the past work but rather a cyclical collection of evidence including reflection. Portfolio assessment stems from a constructivist theory of knowledge (Biggs & Tang, 1998) and is based on the premise that meaning cannot be imposed or transmitted by direct teaching but created by the students through their learning activities. Since meaning is constructed, students should therefore provide evidence from their constructions of knowledge to show that the desired learning has occurred. In practice this method allows greater individual learning flexibility but also requires greater management of the process by the assessor / lecturer.

Our research has shown that that in the context of teacher education, portfolios can be an effective way to bring assessment into harmony with instructional goals. Portfolios can be thought of as a form of "embedded assessment"; that is, the assessment tasks are a part of instruction. Teachers determine important instructional goals and how they might be achieved. At the heart of assessment theory is the concept of reliability and validity. Therefore portfolios are ideally suited as they can often provide a basis for challenging formal test results based on testing that is not authentic or reliable. All too often students are judged on the basis of a single test score from a test of questionable worth (Darling-Hammond & Wise, 1985: pp.315-36, Haney & Madaus, 1989: pp.683-687). Student performance on such tests can show day-to-day variation. However, such scores diminish in importance when contrasted with the multiple measures of assessment that are part of a portfolio. In short portfolios are valid and reliable because of their ability to triangulate learners evidence.
Portfolio assessment is comprised of three processes:

- Setting the criteria for assessing the work
- Selecting the evidence that would be relevant to judge against those criteria
- Making a judgment about the extent to which the criteria have been met (Biggs, 1999: 157).

While the lecturer still sets the criteria for assessment as in traditional assessment, the learner is aware of what is required as evidence of learning in portfolio assessment; and s/he assumes the role of assessor in deciding what evidence of learning is to be submitted. An additional element to this assessment method is that the individual also is involved in assessing the work of their peers. Embedded in the constructivist tradition portfolio assessment also encourages the learners ability to review, revise and re-do. Teachers and learners need the time and space to actively reflect upon the content as well as the context. It is this reflective element that allows learners to work at their own pace without the time constraints usually associated with assessment. Reflection in teacher education is important in the development of existing knowledge and as an aid to critical thinking. As Schön (1983) suggests reflection is key in order to facilitate the improvement of practitioners’ professional judgments and their understanding of new situations. DCU’s School of Education Studies hopes, through its revised assessment approach, to develop the learners understanding of the principles underlying Schön’s idea of continuous reflective practice. This reflection-on-action is a feature of the portfolio assessment approach used in the redesign of the Curriculum Assessment module. Furthermore it is seen as central to developing professional competence of teachers working in or intending to work in educational settings.

The focus of portfolio assessment is to draw a more reliable and realistic inference regarding the learning process and student achievement. Its emphasis is on using multiple methods of assessment, which often says more about the learning process than the traditional modes have done in the past. As a portfolio grows, it begins to tell a learning story in a particular context. It can authenticate the learning and students can then focus on both the process and product. This method should enhance trainee teacher’s knowledge, skills and attitudes to delivering assessments in their future educational environments, as they are aware of both the theory and the practice in the context of validity and reliability.

Research Findings

The multi-method approach to this research was generated from student reflection (reflective diaries), observations and online questionnaires and evaluations.

Analysis of reflection diaries

As part of the assessment portfolio for module ES204 (full-time)/ES222 (part-time) students were required to complete a reflection diary. After each task students were asked to reflect on the difficulties they had encountered, on their strengths and on what they had learnt from preparing the specific task. At the end of the module they
were also asked to reflect on the module as a whole and to offer advice on improving its structure and design. Considering that the reflections were contributing to the overall module mark, the reliability of the information collected from this source was questioned. Reflection diaries are often filled in an either perfunctory or compliant fashion when their scope and value is not fully appreciated by students. Yet, the overall picture that emerges from diaries from both groups is that of an honest – albeit mostly emotional – response to a challenging learning process. On the whole the data collected from reflection diaries - which represents the opinions of the full cohort of students - reconfirm the positive view expressed in relation to the learning experience in the online questionnaire, but also provides further detail to identify further specific differences between the two groups. The table below summarises some general patterns that have emerged from the comments made by the students.

<table>
<thead>
<tr>
<th>Core Themes</th>
<th>Full- time students</th>
<th>Part-time students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relevance to Professional practice</td>
<td>I have found this module very relevant to my work</td>
<td>I had the opportunity to apply what I had learnt from lectures</td>
</tr>
<tr>
<td></td>
<td>I am going to change my work practice/</td>
<td>I have experienced Kolb’s cycle</td>
</tr>
<tr>
<td></td>
<td>It reinforced my professional practice</td>
<td>With this module I have experienced</td>
</tr>
<tr>
<td></td>
<td>I am going to use my assessment activity in my work context</td>
<td>Bloom’s higher levels</td>
</tr>
<tr>
<td></td>
<td>I could apply what I had learnt at lectures</td>
<td>This module was a case of experiential learning</td>
</tr>
<tr>
<td>Linking theory and practice</td>
<td>I have learned to link theory to practice.</td>
<td>I have gained practical experience in designing assessment</td>
</tr>
<tr>
<td></td>
<td>I learned how to create an assessment</td>
<td>I am in a better position to design assessment</td>
</tr>
<tr>
<td></td>
<td>I learned to apply other elements of my learning from other modules into this assignment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I learned how to give clearer instructions in assessment design</td>
<td></td>
</tr>
<tr>
<td>Reflection on learning objectives</td>
<td>Even though the language of SLOs is simplistic, the work behind devising these objectives is very complex.</td>
<td>The learning outcomes for this module were fully met</td>
</tr>
<tr>
<td></td>
<td>I have learnt the value of learning objectives</td>
<td>I have learnt the value of learning objectives</td>
</tr>
<tr>
<td>Reflection on feedback</td>
<td>My understanding of assessment and feedback are greatly improved.</td>
<td>I have learnt that feedback is great tool to progress</td>
</tr>
<tr>
<td></td>
<td>It is hard to give relevant and helpful feedback</td>
<td>I have learnt that feedback can be positive</td>
</tr>
<tr>
<td></td>
<td>I have learnt how important it is to give/receive feedback</td>
<td>I have learnt that it is important to reflect on feedback received</td>
</tr>
<tr>
<td></td>
<td>Taking feedback (even if constructive) is difficult</td>
<td>I have learnt to accept constructive criticism</td>
</tr>
<tr>
<td></td>
<td>It is time consuming to give feedback</td>
<td></td>
</tr>
<tr>
<td>Personal</td>
<td>I have learnt to critically evaluate</td>
<td>I gained confidence in myself</td>
</tr>
</tbody>
</table>
Table 1: Learning diaries: positive comments

The positive comments have been grouped under 6 thematic areas that represent the core focus of the reflections. Not surprisingly only part-time students have made comments linking their professional practice with the outcomes of the module. The comments on this theme emphasise the transferability and applicability of the knowledge they have acquired to their professional contexts. In relation to comments linking theory and practice full-time students focus on the cross-curricular relevance of this module but their comments are very generic in terms of explaining how establishment of a link between theory and practice has been achieved in this module. Part-time students use the learning theories they have been presented with at lectures to explain how they have experienced the link between theory and practice and emphasise of their improved ability to design assessment activities. Feedback seems to elicit very similar reflections from both groups. Comments highlight an enhanced understanding of the value of feedback but also an appreciation of the difficulty in giving and receiving criticism. Personal development appears to be a stronger feature of comments by part-time students. All students in this group were adults returning to education, in some cases, after a long absence from formal learning environments. The confidence-building and empowering dimensions of the learning experience appear to be valuable aspects of the module for these students. Finally, perhaps the most significant reflection outcome is the emergence of attitudinal changes in both groups. The portfolio tasks required students to embrace the teacher and student roles at the same time and the comments seem to confirm that engagement with both roles has happened and has caused attitudinal changes.
The comments by full-time students denote greater awareness of the complexity of the teacher’s role as planner, assessor and mentor providing constructive criticism and support. Part-time students question their beliefs in relation to the role of assessment and how it impacts on students. The need for becoming an empathetic teacher who designs instructions for the benefit of students and is careful about how feedback comments are received and interpreted is expressed in the comments by this group of students. Table 2 summarises some of the shared concerns expressed by the students.

<table>
<thead>
<tr>
<th>Core Themes</th>
<th>Full-time students</th>
<th>Part-time students</th>
</tr>
</thead>
</table>
| Reflection on module structure and delivery | ➢ I found it hard to keep track of the amount of work involved
➢ I found the word count difficult
➢ I was unsure as to whether to explain the activity design in an essay style or not
➢ I found it difficult to write a non-essay
➢ I felt overloaded
➢ I found it hard to choose a topic for my assessment activity
➢ As a student I need more clarification on this form of assessment | ➢ The instructions we received were too wordy
➢ The instructions in workbook were not always clear
➢ The language used should be more first-timer friendly
➢ Task1 scheduled too early
➢ Not enough guidance in relation to marking
➢ I would have liked more guidance on how to structure reflections
➢ There was a lot to be taken in |
| Reflections on marking and feedback | ➢ I think the level of feedback we had to provide was too in-depth for our inexperience
➢ I would not allow people who are unqualified to mark someone else’s work | ➢ The feedback I received from peers was too vague
➢ I received contrasting feedback/marks
➢ I would have liked to have the assignment marked by the lecturer
➢ I found it difficult to word feedback accurately
➢ Marking guidance was too rushed |
| Embracing the teacher’s role        | ➢ I found it hard to mark something I didn’t have enough understanding of
➢ I felt I was not qualified to mark fellow classmates work
➢ I found it difficult to make sure that the student followed the guidelines when I was marking. | ➢ I felt uneasy with marking fellow students
➢ I found the portfolio daunting at the beginning
➢ I did not have a knowledge of the topics I was marking
➢ I only administered assessment and never designed before |

Table 2: Learning diaries: negative comments

Unlike the comments listed in Table 1, there appears to be general consensus among students from both groups in terms of the difficulties they have encountered. In relation to the course delivery and structure both groups felt overwhelmed by the quantity of work involved and the complexity of the structure. However the puzzling complexity that could have resulted in a great level of unpredictability and confusion for both students and lecturer (Biggs, 1999) did not prevent the majority of students (94.7% of full time students and 89.2% of part-time students) from successfully
completing all the portfolio activities. The lecturer invested time and energy in providing guidance and this, while well-intentioned, resulted in an information overload, expressed particularly by part-time students. The difficulties encountered however seem to indicate that students have engaged with the tasks and experienced a “practice shock” normally witnessed in authentic work environments. The anxiety caused by being asked to let go of the student role is expressed in comments emphasising the lack of experience or being “unqualified” for taking on a professional role.

The part-time students are practitioners and appear to be less concerned about their lack of experience, but are equally concerned about the interpersonal dimension and the unease with being assessors of equals. In both cases, however, the difficulty seems to arise with being asked to take a dual role as teacher and student and being faced with a considerably new learning experience and assessment format (Tisani, 2008). Ball (1993) argues that teaching is made up of many paradoxes with which the teacher must grapple. The format of this portfolio appears to have given a head start to the students in terms of beginning to experience educational decision-making and application of their personal judgment. This was a challenge for most students, but most students who, in the overall evaluation of the module, commented positively on the assessment format adopted for this module and acknowledged the learning value of the overall experience.

Analysis of observations of performance and behaviours

The portfolio assessment for this module represented a challenge for both the students and the lecturer. Portfolio assessment is work-intensive for both parties, but it also represents a departure from more traditional forms of assessment such as essays and exams. This departure requires the lecturer not only to support students on how to approach and complete the portfolio activities but also to develop an appreciation of the learning value of this form of assessment.

Both student groups experienced an initial high level of anxiety and shared concerns in relation to the amount of time required to complete all activities. The unfamiliarity of the assessment format, however, elicited different responses from the two groups in relation to how they tackled the tasks. Full-time students responded by making the unfamiliar familiar, by trying to transform the task-based portfolio activities into essays. A number of students misinterpreted the first task, which required them to design an assessment activity for a group of their choice. Despite detailed written instructions and repeated briefing sessions, instead of designing an assessment activity, approximately 30% of the students wrote an essay on how they would go about designing and assessment activity and overcame their difficulty in applying theory to practice by discussing the topic entirely in theoretical terms. The part-time students are practitioners and while most of them had never experienced setting assessment, felt much more at ease with a task that required them to apply theoretical knowledge. Nevertheless both groups experienced a sort of “creativity block”. The parameters for setting an assessment activity were intentionally left very open. Students could choose the syllabus of the module for which they wished to set an assessment activity, the context for which it was designed and decide the assessment method. Furthermore, they were required to apply their professional judgment to ensure that the assessment activity they
designed was appropriate for the syllabus they had chosen, in terms of scope, method, fairness, transparency, reliability and validity.

In relation to group performance, while there are no significant differences in terms of completion rates, the analysis of some core performance indicators reveals different patterns. As shown in Table 3 there are considerable differences in relation to learning progression and mark improvement, marks distribution, peer marking reliability and level of reflectivity.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Full-time students</th>
<th>Part-time students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completion rates</td>
<td>71 out of 75 students 94.7%</td>
<td>25 out of 28 students 89.2%</td>
</tr>
<tr>
<td>Mark improvement (task 1a &amp; task1b)</td>
<td>60%</td>
<td>89%</td>
</tr>
<tr>
<td>Marks distribution</td>
<td>Bell Curve distribution</td>
<td>65% of marks clustered in the 2:1 band</td>
</tr>
<tr>
<td>Peer marking reliability</td>
<td>low</td>
<td>high</td>
</tr>
<tr>
<td>Reflectivity in learning diaries</td>
<td>low</td>
<td>high</td>
</tr>
</tbody>
</table>

Table 3: Assessment performance Patterns

Part-time students appear to perform at a higher level particularly in terms of reflectivity and ability to understand, internalise and apply marking criteria (as required for task 2). Students from this group are adults and their age and level of practical experience they have acquired from their professional contexts may explain the higher level of peer marking reliability, and reflection. Nevertheless both groups appear to have successfully engaged with the portfolio. The full-time group was a much larger group and this posed challenges in terms of individual support that could be offered to students. The retention rate observed for this group matches patterns for other modules offered as part of the degree programme.

**Online questionnaire and evaluation**

Based on the research methodology a period of time had passed before this stage of the research was introduced. Students had completed their module and submitted their portfolios for assessment. Once again we examined the distinction between
**within-method** and **between-method** triangulation. The questionnaire has quantitative and qualitative elements to it. The questionnaire was analysed using cross comparative analysis and filtering tools primarily though the spreadsheets and database software.

After completion of the module students were asked which mode of assessment would be their preferred choice, both for themselves as learners and themselves as teachers/trainers. Overall 57% selected Portfolio Assessment as opposed to 6.1% who would have preferred an end of semester Written Exam. But interestingly when we cross tabulated the results which each cohort the findings provided some interesting reading.

![Figure 5: Full-time students preferred mode of assessment after module](image-url)
All agreed that portfolio assessment was their preferred choice after they had been through the revised module. But interestingly the traditional schools leavers (fulltime students) still had a strong preference for written assignments. Which also explains why some of this cohort approached their reflective diaries with an ‘essay’ mentality. Some of their comments may help explain this:

*It would provide students with a variety of ways at looking at assessment. The portfolio idea was good in theory but not in practice as it had to many elements that became complicated. Time frame was too short for the work involved*

‘Prefer written test’

‘Just feel I do better on terminal exams’

The part time students generally had very different views on the impact and relevance of the portfolio assessment on their learning and professional development. As the following quotes below demonstrate:
Part of this research was concerned with how the students’ views and perceptions of assessment had changed during the duration of the redesigned module. Figure 7 & 8 outline how the views of the full time and part time cohorts differed in relation to attitudinal change relating to assessment. This shows that the students already with some experience of grading, designing or implementing assessment had the greater percentage change in their attitudes towards assessment i.e: 94% of this cohort has changed their perceptions. It was expected that the full time students would have a lower percentage of change but this again was very high.

Figure 7: Part-time students change in assessment perceptions

I found different aspects of the assignment very challenging (e.g. peer marking, having had no prior experience) though I learnt a lot from this module and the feedback from both lecturers and peers was helpful.”

‘A portfolio shows the build up of your learning and is a good way of remembering items that may otherwise be lost. This works well with and end of unit assignment/essay as this is summative and the portfolio is format’

‘Its good to have an ongoing portfolio as you can continuously work at it, however not in every subject. I found the group work very good but again not in every subject. Mix these with some smaller assignment.’

‘Practice and portfolio. I think teaching practice is invaluable and necessary on an education programme. There needs to be more focus on the skill of teaching. There is too much great subject matter which is lost because of ineffectual presentation or teachers’
Finally, students were asked how their experience of being assessed within this module would help them with their professional development. The following comments give a cross section of opinion in regard to this question.

‘My attitude changed because now I see assessment as a integral step that should be undertaken throughout the learning cycle, and not just a summative action at the end of period of learning’

‘I realised the responsibility involved in marking someone else’s work and I gained a new appreciation for teachers’

‘I now realise how much work is involved in forming an assessment. Also the feedback is quite difficult’

‘I feel I now look at assessment in more creative ways and would be more likely to use practical demonstration or presentation as forms of assessment’

‘Realised the important of matching learning objectives of learning outcomes’

‘I have far greater understanding of feedback and how it can be used positively and/or negatively. Also a better understanding of the difficulties in developing assessments’

‘I can understand the importance of feedback especially as I was personally exposed to it during this module and it is something that I will cultivate going forward’

‘Prior to taking the module I wouldn’t have applied the thinking and analysis to assessment that I would now; how it’s important to align assessment with the programme learning outcomes and how it’s important to give students an opportunity to demonstrate their learning e.g. unambiguous instructions’
Conclusion

Assessment is a powerful driving force behind many forms of learning. Because of its power over learning it is crucial to ensure that assessment promotes rather than hinders learning. Furthermore, learning should continue beyond assessment and it should meet the needs of the present while preparing students to meet their own future learning needs (Boud, 2000, p. 151).

The assessment presented in this research was designed with the students’ future professional needs in mind. Fostering a deeper understanding of assessment through experiencing various forms of assessment was a crucial ingredient in the development and enhancement of teaching competence. Our research shows that despite the widely documented challenges posed by portfolio assessment, in terms of work-load and unfamiliarity, it may be effective in promoting deeper learning. In our research portfolio assessment offered a framework for the acquisition of knowledge in a structured and applied fashion. Knowledge was not simply transmitted and its acquisition verified through assessment. Students were allowed to construct a personal understanding of the topic studied through experiencing various aspects of assessment and embracing different dimensions of the teaching profession.

The authenticity of the learning scenario, while generating a practice-shock experienced normally by novice teachers, also gave the students the opportunity to relate to the module content in an engaged and personal manner. Students for this module experienced portfolio assessment, but also came to appreciate the value of this form of assessment and in their evaluations indicated that they would be prepared to use it in their professional context.
We therefore argue that being enabled to make sense of knowledge through reflection and professional decision-making and engaging in its application constitute the basis for the sustainability of learning fostered by this module in relation to assessment theory and practice.

References


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