
Integrating the Use of Teaching Portfolios with Experiential Learning in a Postgraduate Certificate for Academic Staff in Third Level Learning and Teaching

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ABSTRACT This article discusses the process of developing a teaching portfolio to meet a module assessment for a teacher education course: the Postgraduate Certificate in Third Level Learning and Teaching, which is located in a higher education institution in Ireland. The course is designed using an experiential model of learning and its facilitated delivery by the four course tutors intends to exemplify this model. This is a broad term encompassing learning methods that are based on the experience of the learner. The overarching aim of the course is that, having experienced this model of learning as course participants, the lecturers will be well placed to implement and adapt this model in order to facilitate the learning of their own students. The teaching portfolio is designed to allow the participants to use experiential learning to build evidence of their own reflections and best practices in third-level learning and teaching.

Introduction

The Postgraduate Certificate in Third Level Learning and Teaching is located in the Faculty of Academic Affairs in the Dublin Institute of Technology. It is aimed at new and existing academic staff in higher education (third-level) institutions in the Republic of Ireland, including lecturers, librarians and academic support staff. The latter two have responsibility for teaching in their areas. It was initially offered in 2000, and is continuing apace today, with currently over 45 academic staff having successfully graduated from the course.

This article will explore the four phases of experiential learning on Module One of the course: concrete experience, reflection, abstraction and active experimentation. It will determine the advantages of this approach and

then describe the guidelines designed for course participants creating a portfolio, and will conclude with a retrospective evaluation showing the impact of the portfolio on professional teaching practice and highlight future developments.

Background

The process for portfolio development that was settled on for the Postgraduate Certificate in Third Level Learning and Teaching had at its core the idea of sharing knowledge with peers, reflecting on teaching, making knowledge on teaching public, and gathering evidence around teaching and student learning. As this was the first course of its kind in the Republic of Ireland, we looked at what was happening internationally in this area, and a review revealed that the teaching portfolio is an ideal source from which to view your own teaching philosophy, practice, effectiveness, goals and development.

The essence of the process was on exploring the scholarship of teaching. How can it be documented? Represented? If such an idea is to be considered seriously, it must, Schön argued, 'produce knowledge that is testably valid, according to criteria of appropriate rigor, and ... claims to knowledge must lend themselves to intellectual debate within academic ... communities of inquiry' (Schön, 1995, p. 163).

For Schön, this new scholarship implied a kind of action research planned and conducted by practitioners. A fundamental feature for a new scholarship of teaching, then, was the notion of active inquiry into it by teaching staff themselves. But how? And how was it to be documented?

Several models were explored. The first was a teaching portfolio; the second, the course portfolio. Portfolios have a long and valued tradition with many professionals – with artists, writers, photographers and architects for example. These professionals use portfolios to keep copies or drafts of their work – their writings, models of projects, sketches of their art – charting how over time it has changed. Some portfolios include only what is considered one's 'best work'. Others include a range of work.

However, portfolio uses in teaching are a recent phenomenon. Portfolio entries carry a crucial element: reflection. Through reflection, a teacher revisits and inquires into his/her teaching and learning, assessing what succeeded or failed and why. In this process, teachers uncover the meanings and interpretations they make of their own practices. Through a portfolio they can make this knowledge public and open to scrutiny. Thus the portfolio can be both a means of inquiring into teaching and a way of recording the results of that process.

A definition of the nature of the teaching portfolio required for this course is provided early in the module to the participants. It is to be a tightly written, reflective collection of work, summarising a teacher's approach to learning and teaching, and providing evidence of major teaching activities and

accomplishments. Teaching portfolios are constructed by teachers to highlight and demonstrate their knowledge and skills in teaching.

Taking this further, while the portfolio will document evidence of selected accomplishments as a teacher, and will be substantiated by samples of work, it will be only fully realised through the process of *reflective writing* and *deliberation* by the teacher on the contents. Therefore, the portfolio will be created through a thoughtful process of collecting concrete evidence of teaching and students' learning and organising it in a meaningful way.

Context

There are two modules on the course, and it is Module One and its teaching portfolio process that is the focus of this article. Module One is entitled 'Learning and Teaching in Higher Education'. The aim of this module is to provide teachers in higher education with a wide range of practical learning and teaching methods, including the use of relevant learning technologies that will help their students learn more effectively. They will gain solid background knowledge in recognised theories and national and international best practices in learning and teaching in higher education so that they understand the reasons for choosing certain teaching strategies.

In addition, these specific areas are salient for new teachers:

- identifying learning needs of individuals and groups;
- demonstrating the application of principles of equal opportunities and social inclusion in their own teaching practice;
- analysing teaching experiences through research about learning in their own courses and through student feedback;
- evaluating effective learning and teaching through self, peer and tutor observation of teaching;
- participating effectively in special interest groups and networks in third-level learning and teaching;
- identifying specific areas of interest in learning and teaching for further study and professional development.

All the above is to be realised through the compilation of a teaching portfolio based on an experiential model of learning.

The course has been running since September 2000, and this article discusses the developments and refinements to the portfolio process based on informal discussions with the participants over three years and formal module evaluations taken in April 2003. To date, there have been a total of 45 teachers who have successfully completed the certificate course and, in so doing, have produced a teaching portfolio which is a vehicle for documenting and reflecting on the said academic staff's teaching and learning to inform or improve their practice. This course is taken part-time by a cohort of academic staff currently lecturing at third level; those taking this course are called 'participants' to distinguish the teachers who take the course from the students

whom they teach. Attendance and face-to-face participation for this module is normally for three hours per week for 15 weeks, and the course as a whole is voluntary.

The teachers ranged from a number of higher education institutions throughout the Republic of Ireland, from a wide variety of subject disciplines in the applied arts, science, tourism and food, engineering, the built environment and business. They also varied in their teaching background from apprenticeship courses to undergraduate and postgraduate degrees.

To reflect the qualitative enquiry of the portfolio, a focus group and a series of structured interviews were held with 28 participants. Three action gains were kept in mind: the improvement of practice, the improvement of understanding (individually and collaboratively), and the improvement of the situation in which the action takes place. As advocated by Morgan & Krueger (1998), the give and take of the group discussion produced some very useful insights into what mattered most to the participants regarding support for the portfolio. The analysis of the interview data indicated that the use of portfolios appeared to have a positive impact on the teachers' adopting innovative approaches to third-level learning and teaching.

Results and Implications of Module Evaluation

What are the benefits in generating and compiling a teaching portfolio? The findings from the research identified specific issues in relation to support for teachers undertaking a portfolio and they also highlighted the learning and skills development of the teachers. It can be concluded that the process of generating a portfolio was an empowering if at times painful experience for the teachers. It helped them to manage their learning, to find their voice and to develop vital skills for success in teaching. Arguably, a significant contribution to the portfolio process that we as academic staff developers can make is by maintaining a community of shared practices through campus-wide and inter-institutional conversation focused on forward-looking learning and teaching. This is to be achieved by providing quality support for all teachers from beginning instructors to experienced, highly regarded academic staff. The process they underwent chronicled their growth as learners and added to their understanding about their practice.

The Portfolio Development Process

As existing literature has shown, it is not entirely clear how to build a case for effectiveness as a university teacher (McCormack, 2000). Yet the same literature has widely reported the benefits of compiling a teaching portfolio, from documenting the unfolding of both teaching and learning over time, and of improving teaching performance (Seldin, 1991), to involving teaching staff in reflection on their own practice and how to improve it (Edgerton et al, 1991).

Shulman (1987) advocates that the teaching professional knew not only *how* but *what* and *why*: 'the teacher is not only a master of procedure, but of content and rationale, capable of explaining why something is done to himself and to others ... capable of reflection leading to self knowledge' (p. 6). This appears to be a wide-reaching claim, involving all teachers, but for the purposes of this module, it serves as a definition of a professional.

In this postgraduate certificate, individual participants develop their own teaching portfolios, but in the process of so doing they are actively engaged in a community of peers and course tutors as co-learners in this process. They participate in the portfolio process as a cohort, beginning their work in September and handing in their portfolio-in-progress in January. The formation of such a community of respect among the participants is critical to creating an environment for successful reflection as well as successful learning and teaching.

It was important to highlight from the outset that time is an element in teaching portfolio development, and it *should* be a time-intensive process. Meaningful collections of work cannot easily be put together all at once: reflection and review should make the portfolio development an iterative process. The participants may find themselves revisiting aspects of their portfolio throughout the entire development period. The portfolio has as its main virtue the outcome of permitting participants to display, think about, and engage in the kind of intellectual work that takes time to unfold.

An emerging characteristic of a teacher as a professional is this ability to articulate, evaluate, engage in and respond to criticism about teaching, their own practice and student learning (Lyons, 1998). These aspects are very important in the development of the individual as a professional. However, for many teachers, their most prized ways of doing things have never been shared with others, and certainly have rarely been subjected to the insights or probings of critical friends. Thus, the portfolio process opens to scrutiny and interrogation the debate about what constitutes good practice and assists in sustaining the conversation over a period of time.

For many of the participants, this may be the first time they have gone through such a process, and they are provided with guidelines designed to help them to document their professional growth in the module in question in a rich and meaningful way.

Support for the portfolio development is scaffolded into a number of stages. Weekly slots on the module are devoted to an aspect of portfolio development. Research indicates course tutors should provide numerous opportunities for participants to discuss, collaborate and practise performance prior to final assessment (Klenowski, 1998).

An additional form of support is provided by a series of monthly, individual and small-group meetings with the course tutors to discuss progress. There was an aim for these to be a rich forum for peer mentoring that supports and extends the course tutor mentoring process. This multifaceted approach encourages the participants to articulate the meaning

that the study and practice of teaching hold for them as individuals, creates a context in which they are helped to ground this meaning in theory, and enables them to recognise and respect the similarities and differences between their own constructions of what is professionally significant and the constructions of their peers from different subject disciplines who are going through the same process.

Therefore the use of portfolios in this teacher education course, based on an experiential model of learning, as outlined in Figure 1, is a mode of assessment that more accurately portrays the complexity, depth and scope of third-level learning and teaching.

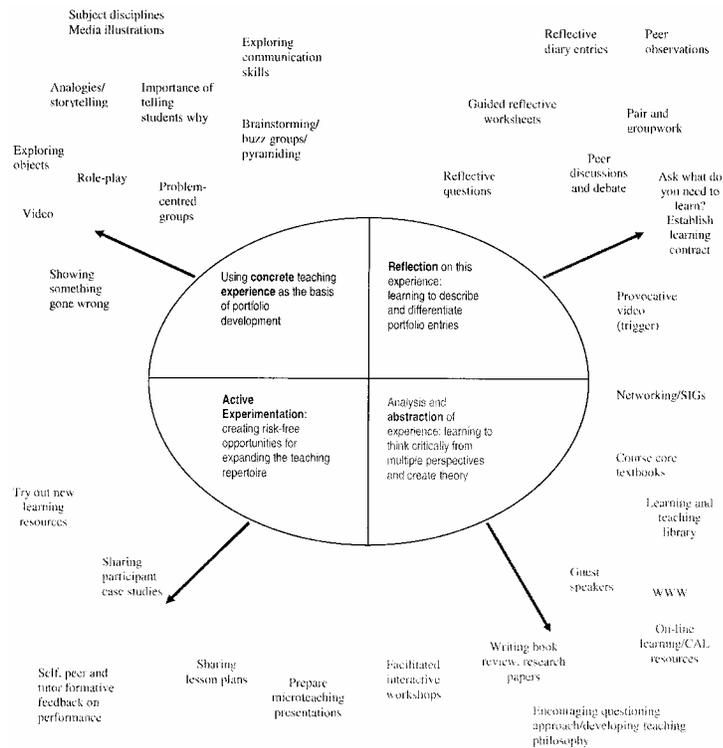


Figure 1. Experiential learning as a basis for the portfolio. Adapted from Kolb's Experiential Learning Cycle (1984).

Bringing Concrete Experience to the Portfolio

The course developers, who are also the tutors, felt that the most productive starting place for the teachers' professional development was their own real classroom experience in the role as facilitators of learning in their institutions.

The teachers are encouraged to reflect on their experiences in order to confirm strengths, raise questions, improve their practice and innovate. The primary focus for reflection must be theirs as teachers and learners (Rodgers, 2002). Kolb (1984) himself notes that transformative growth comes through reflection on experience where such ideas and practices illuminate teachers' practice rather than usurp it. The learning that the participants on this course bring with them from previous collegiate and non-collegiate study, from the workplace and from organisational and community life is at the heart of the curriculum of any portfolio development (Mandell & Michelson, 1990). The theory behind the portfolios meshes with Dewey's idea that learning involves an experiential continuum in which new knowledge is built upon and mediated by prior knowledge and values.

This is an ongoing experience over time for the course developers and has itself been a source of experiential learning in which theory has often followed practice and in which the participants have often been the teachers. The participants are encouraged to voice their responses to the portfolio process and to make suggestions as to how it could be improved. Their suggestions helped the course tutors to identify problems in the process and articulate priorities; a milestone of portfolio dates was developed, where draft versions of portfolio entries are brought to the monthly portfolio development meetings. Formative feedback is given on the draft entries. Specific feedback from the course tutors, together with the participants' own self-evaluations, helps in the development of personal goals. As the portfolio process becomes more and more refined by the insights offered by the participants, the course tutors have become cognisant of how much they could learn from this dialogical process.

The use of structured feedback often represents the turning-point in teachers' awareness of the centrality of student learning (Rodgers, 2002). Without skilled feedback, we will not learn to distinguish what was quite good from what was brilliant, nor which approach works better in a given situation, nor will we acquire the habit of internal feedback reflection. With high-quality feedback we acquire self-knowledge, deepen our self-esteem and continue to be motivated to learn (Cropley, 2002). In addition to helping them move through the reflective cycle, it is hoped that the structured feedback the participants receive in their microteaching sessions will go some way to creating a community of inquiry in the classroom. In microteaching, in this context, the participants video record and then provide constructive feedback of each other going through important stages of their teaching development.

This type of feedback also raises unsettling questions for the participants, as many have for the first time felt *'out of their comfort zone'*. They have begun to realise that certain ways of structuring the curriculum, activities and the physical classroom itself offer more opportunities to observe learning with their students than others.

The professional experiences of the participants serve as the foundations of their prior learning. 'We are a product of our experiences. We tend to teach

the way we were taught. Struggling against this tendency is an exhausting and yet exhilarating effort' (Freidus, in Lyons, 1998, p. 51). Change emerges over time through a process of construction, a process both experiential and dialogical, that is transformative. For the participants on this module, the construction of their portfolios enables them to experience the complexity of a constructivist pedagogy by engaging in an open-ended process that pushes them to revisit their own knowledge and express it in personally meaningful ways. As Engel (1994) has highlighted, this emphasis on contemporary meaning-based pedagogies requires a rethinking of the 'instruction-curriculum-assessment triad'.

The mentoring aspect of the portfolio development creates possibilities for dialogue and a concrete context in which both the participants and the course tutors may examine and extend their personal and professional constructions of knowledge; mentoring takes place among the participants as peers and within themselves (self-mentoring).

Reflection

As the reflective process is critical to the success of the portfolio, participants are urged to use their time in the weekly class sessions to take a step back and look at the new experiences they are encountering. Central to this is their ability to make the links to their previous knowledge and experience in these areas of learning and teaching. The reflection takes many forms including pair work, group discussion, written reflection exercises and joining special interest groups. The participants are supported in making links between their reflections on practice and the theories and principles of learning and teaching in higher education. The process of reflection needs to be rigorous and systematic and therefore distinct from ordinary thought (Dewey, 1997); only then can it slow down the teaching/learning process for the participants, revealing rich and complex details, allowing for appreciation, and paving the way for a considered response by them rather than a less thoughtful reaction. As the participants gain skills in this type of reflection, they become more able to respond thoughtfully in the moment, and become more interested in and curious about the work they do.

The typology of reflective practice (descriptive, comparative, critical and holistic) for teacher education by Jay & Johnson (2000) is useful for informing how reflection is to be taught in this portfolio process and is used as a basis for the participants to begin to reflect on their progress in the module.

Reflection and self-assessment do not come naturally to people who have had little practice in it, and written guidelines are given to all participants in the portfolio development process. Reflective practice is also scaffolded for the participants so that they can interrogate their teaching practices, asking questions about their effectiveness and about how they might be refined to meet the needs of students. This public collaborative inquiry involves learning about the self and about the values one holds for teaching and learning. It is

also expected that the portfolios will be scholarly, and that the insights that reflection allows will go beyond a quotidian pragmatism to connect with relevant theoretical constructs (Baume & Yorke, 2002).

The reflection component in the portfolio encourages participants to reconnect between process and product. One cannot assume that the end to teaching is learning (Shulman, in Lyons, 1998). It is recommended to the participants to include not only the documentation of their teaching in the form of student evaluations, but the documentation of their students' learning in the form of assessments, and not only the successes in their teaching but also the failures, and the reflections on why they happened and what role they played. The key is the differentiation and naming of an experience's diverse and complex elements so that it can be looked at, seen and told from as many different perspectives as possible. This can be a difficult stage of the cycle for the participants because it asks them to withhold interpretation of events and postpone their urge to fix the problems embedded therein.

The participants need time and space to explore the multiple elements present in any learning/teaching situation. This phase of the cycle is important as, through collaboration with peers, the participants can unearth as many details as possible, from as many different angles as possible, so that one is not limited to the sum of one's own perceptions. They need to look and see the variety and nuance present in their teaching before leaping into action.

As reflective practitioners, it is essential that participants on this portfolio process not only learn to see but that they learn to see through their students' eyes.

Abstraction

This is the meaning making phase. It is a firm conviction by the course tutors that the theory that is generated about third-level learning and teaching must be grounded in the text of the teachers' experience. In turn, this evidence generated from the teachers' experience needs to be looked at from various perspectives and rigorously questioned so that explanations and theories are not allowed to stand on selective data.

The generalisation and abstraction takes many forms including reading, exploring best national and international practice, book reviews and developing a personal practical philosophy. Tutors advocate asking questions about the theories of learning and teaching from the viewpoint of participants' current practice.

A second critical aspect of this phase is the need for the entire cohort of participants to share a common language about third-level learning and teaching. Unveiling the nuances of the words and concepts we use as part of the discourse of learning and teaching is as important as revealing their very nature themselves. There does need to be a common language within a community of inquiry such as on this postgraduate course.

A third critical aspect is the process of unearthing assumptions; during the portfolio process we uncover many of the assumptions that drive our actions as teachers, learners and researchers. Careful consideration of the theoretical and emotional ground from which interpretation of experience arises is essential. The tutor and peer group must be supportive but also willing both to push and be pushed by one another to risk exploring the territory of assumptions.

The introduction of paradigms and frameworks from research in third-level learning and teaching also expands the ways of naming and understanding experience. Theoretical concepts can be drawn from any piece of research that is relevant to the inquiry of the moment. If a group is focusing on a particular theme, readings within that area can lend depth to the discussion. What is important, and what is emphasised to the cohort, is that the weight of the theory of 'experts' is balanced by the teacher's experience, and not necessarily taken at face value.

Active Experimentation

This is a major key to the learning both in the teaching portfolio and in this module on the postgraduate certificate. It can be regarded as the final as well as the initial phase of the cycle because it doubles as the next experience. The participants try out different ideas and methods in their own situations and contexts. Lesson planning, microteaching in small groups and peer observation are among the strategies used to facilitate participants' testing out the application of their learning.

Huberman (1995, p. 198) writes, 'although conceptual knowledge or understanding is essential, it is not sufficient ... it is still possible to understand and yet not be able to do'. The course tutors encourage the participants to build in check-in time as a follow-up to see how the experimentation has gone. It is all too easy to abandon good ideas because they were not successful the first time; the participants are encouraged to take risks and analyse their ideas and then plan action points to carry them out repeatedly in the future.

The aim is for the participants to become sensitive to the fact that good teaching is a response to students' learning rather than the cause of it. The teachers on this module can formulate explanations for what they see that come from their own knowledge of learning and teaching, their subject disciplines and contexts, from each other and from research and proceed to choose a course of action that will, because of the time and consideration taken, be more effective.

Creating a Teaching Portfolio: the guidelines

As mentioned, written guidelines given at the beginning of the module are an essential foundation on which to build the scaffolding support for the participants.

The portfolio is a collection, selection and organisation of ... [a teacher's]
... work over time that shows evidence of self-reflection and learning.
(Wade & Yarborough, 1996, p. 65)

Of prime importance to the course developers was how to ensure that the assessment of the portfolios took diversity and values into account. With an emphasis on portfolios containing samples of a teacher's best work, at what point do we confront the danger that these isolated samples of best work may be so remote from the teacher's typical work that they no longer serve the purpose that we had in mind?

The question of the subjectivity of portfolios was also a concern. The question became how to make the assessment of the portfolios as reliable and valid as possible, given their subjective nature (Doolittle, 1994). Predetermined assessment criteria were developed. It is vital that these are made explicit to the participants before they embark on their portfolio development. A thorough understanding of each criterion assists them to organise the portfolio effectively.

Research conducted around Australian universities revealed that each guide to portfolio content is essentially concerned with enhancement of student learning and with teaching achievements:

- stimulation of student learning and interest in the discipline;
- initiatives in teaching and assessment methods;
- preparation of teaching materials;
- development of curricula;
- supervision and guidance of students;
- contributions to policy development or mentorship in relation to teaching;
- facilitating teaching excellence and at departmental, faculty, national or international level (Santhanam, 2002).

As the portfolio is developmental in nature, microteaching sessions are held to assist the participants in collecting baseline data; this facilitates the participants' video recording important stages of their teaching development. They are given the time to reflect, self-evaluate and practise their presentations.

Whilst developing this portfolio, other programmes were referenced to provide insights into the process, for instance the University of Manchester Institute of Science and Technology programme based on the process of reflection, recording, reaction and review (Tomkinson & Warner, 1997). This is similar to Penn State's recommendation: collect, select, reflect, present, project; the latter referring to setting new goals taking into consideration where the learner is now and where they want to go next.

In higher education in the Netherlands, typical use of the portfolio has been as an instrument of reflection on learning (Driessen, 2002). Johnson et al (1996) at the University of Central Florida have developed generic sections based on their own conceptual model: commitment, collaboration,

communication skills, ethical standards, knowledge of content, knowledge of pedagogy, reflective practice, diversity and technology.

The Portfolio as Documentation

Documentation should account for a comprehensive range of teaching activities and time investment. It should reveal improvement over time, as this should be the primary criterion for measuring quality of teaching (Way, 2002).

It is stressed to the participants at the outset of the module that there is no single correct recipe for preparing a teaching portfolio. Since it is a highly personalised product, no two are exactly alike. But as Shore et al (1986) point out, a good portfolio would normally contain specific core areas, which will be discussed later in this article.

Establishing Relevance: why should the teacher at third level have one?

From the commencement of the module, it is important to assure the participants of the usefulness of the teaching portfolio. It is a personal statement of growth in understanding learning and teaching, based on analyses of one's teaching performance and of actions for improvement; and it should be linked to theories underpinning the practice of third-level learning and teaching which the participants have explored during the module.

Since the portfolio is a personal document and is based on the accumulating reflection on practice during the module, its content reflects participants' individual views. Thus the task of deciding what exactly should be included and how it should be organised are necessarily matters for them to decide.

Advantages of This Teaching Portfolio

Undergoing the portfolio development process should provide the course participants with distinct benefits. It should capture the complexities of their actual teaching and it matches assessment to the teaching style of the module. It has clear goals, as they were decided at the beginning of the module and are clear to both tutors and participants alike.

The aim was for the portfolio to promote new conversations about teaching around the represented institutions in Ireland. It was felt to have the potential to create a culture in which '*thoughtful discourse*' about teaching becomes the norm. It creates concrete evidence of teaching over time; it documents the development or '*unfolding of expertise*' in teaching.

It gives a profile of participants' abilities. It has *depth*: it enables participants to show quality work that is done with the help of resources, reference material and collaboration with others. It has *breadth*: a wide range

of skills can be demonstrated. It has *growth*: it shows efforts to improve and develop and demonstrates progress over time.

It is a tool for assessing a variety of skills: written as well as oral. Graphic products can easily be included. It develops awareness of participants' own learning: they have to reflect on their own progress and the quality of their work in relation to known goals. It also caters to individuals in the heterogeneous sense: since it is open-ended, participants can show work on their own level. Since there is a choice, it caters to different learning styles and allows expression of different strengths. Finally, it develops independent and active learners: participants must select and justify portfolio choices, monitor progress and set learning goals.

Deciding on a Thematic Approach to the Teaching Portfolio

Research has shown that the portfolio can serve as a mechanism for teachers to think through the 'connectedness' of ideas and to construct meanings based on their own emerging understanding of the personal and professional dimensions of teaching (Biddle & Lasley, 1991). The articulated theme of the portfolio emerges from common threads running through the artefacts: the theme does not dictate the selection of artefacts but highlights patterns within them. Throughout the module, the participants have to decide on a theme on which to base the development of their portfolio.

Obviously, as the participants are all individuals working in unique areas in third-level learning and teaching, a range of themes emerge every year. To date, some of these have been a move towards student-centred learning and teaching, being a reflective practitioner, and creating an interactive learning and teaching classroom. Quite often, the participants opt to use a metaphor for their portfolio theme: 'being on a journey', 'jumping in at the deep end' and 'catalyst for change'. One memorable theme was the Kerryman joke, looking for directions: 'I wouldn't start from here'.

Presentation of the Teaching Portfolio

The design of the product, or tangible outcome, was set out in the written portfolio guidelines, but the actual presentation is left to participant choice; some are particularly creative in this area. There is a requirement to prepare a written commentary of 3000 words maximum and to back the content up with a folder of evidence in the form of a number of appendices. Together, the commentary and the appendices should provide evidence that the participant knows what effective higher education is and that they have built on their strengths and improved aspects of their teaching in Module One: 'Learning and Teaching in Higher Education', with further development to take place in the second and final module on the course.

What needs to be said about each portfolio item? When an entry is being created for each of the portfolio items, it is useful for the participants to state the following for each:

- Description: what is it?
- Analysis: why have you included it?
- Reflection: what learning does it represent? (Lyons, 1999b, p. 3)

The schematic diagram (Figure 2) illustrates the core areas that the module participants are required to develop for their portfolios under an experiential learning model.

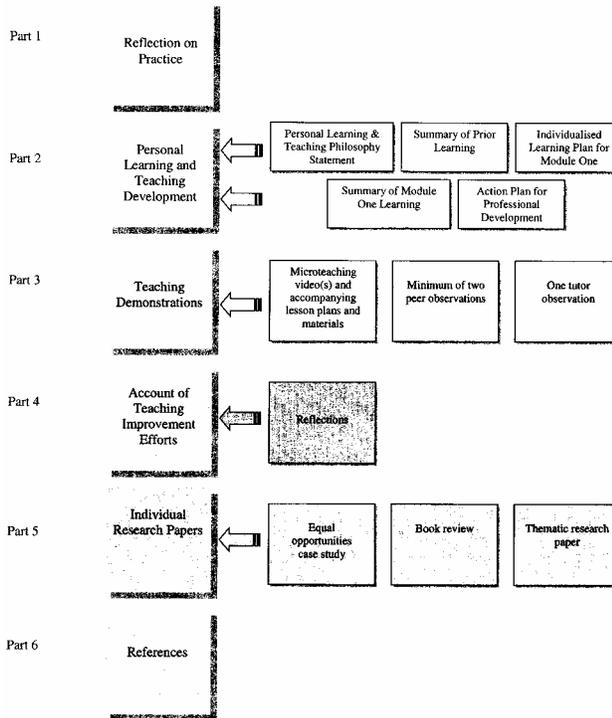


Figure 2. A schematic of the portfolio.

A collaborative model is used for this portfolio process: the participants are supported to engage, to involve, to interact, to share and to trust with each other. The aim is to conjure up team learning, working together, discussing, reflecting, helping, building and collaborating. Based on this, the peer observation scheme was incorporated as part of the portfolio development process because it essentially offers ways forward toward the collaborative culture we wished as course tutors in a Learning and Teaching Centre to

support both within the institute and with other higher education institutions nationally.

In more detail, the peer observation scheme offers a supportive and constructive, practical collegial activity. There are a number of distinct benefits: it motivates and affirms those involved. It develops awareness that problems in teaching are shared by others and that solutions can be found with others. It provides new ideas and skills for those involved. It builds awareness of the value of, and skills in, critical reflection and reflective practice. It stimulates discussion about teaching and learning within departments and schools in the institute. It develops a sense of collegiality and an environment which values the sharing of experiences and ideas through teaching discourse. It promotes self-assessment. It benefits the observer by providing insights and ideas. It opens up the private teaching space to others. It supports continual improvement. It reassures highly self-critical teachers. Changes are made based on evidence. As Bell (2002) advocates, it can be a significant turning-point.

The microteaching tutorials mentioned earlier demonstrate the appropriate application of some of the following learning and teaching strategies appropriate to the participants' teaching:

- making presentations (lecture, demonstration);
- facilitating group learning (seminars, discussion groups);
- facilitating active learning methods (case study, role-play);
- facilitating practical or laboratory classes;
- effective use of one appropriate technology for teaching and learning within their own subject area (of the media and technologies used in the course).

The Creative Portfolio

As has been previously mentioned, the participants are encouraged to be as creative as they wish in developing the complete teaching portfolio. Along with the core sections, the portfolio may also include the following, remembering that there is a need to justify the reasons for their inclusion in the portfolio:

Videotapes of microteaching and/or the participant's teaching (in regular class).

Representative Course Materials

- syllabi (the participant could include two syllabi from the same course that demonstrate changes they have made in course content);
- course descriptions including details of content, objectives, methods, and procedures for evaluating student learning;
- exams and quizzes, graded and ungraded;
- reading lists, assignments, handouts, problem sets, lecture outlines;
- descriptions and examples of audio/visual materials used;
- descriptions of uses of computers and other technology in your teaching;

- artwork, cartoons, songs, poems, articles, cards, letters, photographs and favourite contextualised quotes.

Materials Showing the Extent of Student Learning

- report on identification of student difficulties, steps taken to help students to learn more effectively, and learning outcomes as a result;
- scores on standardised or other tests, before and after instruction;
- statements from colleagues in the department or elsewhere, regarding your preparation of students for advanced work;
- graded work from the best and poorest students;
- examples of your written feedback on student work.

Roles, Responsibilities and Goals

- a statement describing the participant's teaching roles and responsibilities;
- a description of courses taught, with enrolments and comments regarding whether the course is new, team-taught, etc.

Areas of Innovation

- attempting instructional innovations and evaluating their effectiveness;
- use of new methods of teaching, assessing learning, grading;
- description of instructional improvement projects developed or carried out;
- design of new courses, participation in curriculum design or re-design;
- assistance to colleagues on teaching matters;
- design of interdisciplinary or collaborative courses or teaching projects;
- preparation of a textbook, lab manual, courseware, etc.;
- research projects about teaching and learning effectiveness in your course;
- participation in teaching seminars, conferences, workshops.

Contributions to Your Institution or Profession

- service on teaching committees or other committees;
- publications in teaching journals;
- obtaining funds/equipment for teaching labs, programmes etc.

Special Honours or Recognitions

- teaching awards from your profession;
- invitations based on teaching reputation to consult, give workshops, write articles;
- ... or any other materials that they found useful for inclusion ...

It has been argued (Way, 2002) that student evaluations should not count for more than 50% within the overall portfolio evaluation system. There should be a move to divorce the quality of teaching from consistently high student evaluations; this should recognise that experimentation will result in fluctuations in student evaluations.

The way in which the participants try to apply their underlying personal teaching philosophy through the development, implementation and subsequent modification of their teaching practice and how they have

reflected on this process will be important aspects of the portfolio's contents. The portfolio needs to show the participant's own teaching philosophy, including details on practice, effectiveness, goals and development. The participants are asked to write the entire portfolio in the first-person 'I' narrative; an aspect that does not come naturally to all.

Philosophy of Learning and Teaching Statement

For the participants to begin thinking about their teaching philosophy, the course tutors feel it is useful for them to address four primary questions:

1. To what end?

It is important to start by describing where you want to end. In other words, what are your objectives as a teacher? The rest of your philosophy statement should support these objectives, which should be achievable and relevant to your teaching responsibilities.

2. By what means?

When you have a clear idea about your teaching objectives, you can discuss methods that you use to achieve or work towards them. You will want to explain specific strategies, techniques and exercises and include both what you have used in the past and what you are planning for future courses. You will want to tie these directly to your teaching objectives and discuss how each approach is designed for that purpose. Discuss also how you make decisions about content, resources and methods, and make connections to your course objectives. Relating your methods to national-level needs for teaching in your discipline is also useful.

3. To what degree?

You will need to discuss how you intend to measure your effectiveness towards the objectives and methods you have outlined.

4. Why?

What in your opinion are the rewards of teaching? Why is teaching important?

The intention is for the participants to debate within themselves, and explore this learning of something new. Because they are dealing with a broad repertoire of performances over time, this section pulls it all together for the participants, and paints a panoramic, rich, developmental view of third-level learning and teaching in their own professional contexts.

Retrospective Research Study

In December 2003, an evaluative study was conducted to retrospectively measure the impact of change in teaching practice for the teachers who

graduated from the Postgraduate Certificate in Third Level Learning and Teaching course over a period extending from 2000 to 2003. A qualitative questionnaire was distributed to the 45 successful graduates of the course to establish the difference that the course had made to these teachers' professional practice.

Twenty-five teachers returned completed questionnaires; all indicated that impact had been made on their teaching practice, and a number of changes had taken place. The most significant of these had been increased reflection on current teaching practice; the introduction of new teaching strategies; increased focus on the design and delivery of classes; more work taking place in course teams; increased confidence about learning and teaching; and a more student-centred approach taken to teaching.

As a result of this study, certain aspects of the course have been confirmed as strengths: the teaching portfolio and group project as the two forms of assessment. All respondents indicated that completing a teaching portfolio had had a positive impact on their teaching practice and 18 provided evidence that their experience of completing the portfolio had had an impact on their students' learning.

The Future

The portfolio development process in this module is a dynamic, evolving entity. The aim is to keep moving towards Shulman's (in Lyons, 1998) working definition of a portfolio:

a structured, documentary history of a set of coached or mentored acts of teaching, substantiated by samples of student portfolios, and fully realised only through reflective writing, deliberation and conversation. (p. 37)

Depending on the subject disciplines of the participants, there has been interest expressed in the development of an e-portfolio. This year, a multimedia teacher has decided to design and produce an e-portfolio. It has been argued by Barrett (1994) that electronic portfolios have undoubtedly become a critical component of assessment methodology in education today and in higher education are largely replacing paper-based portfolios.

The versatility of an electronic portfolio delivered on CD-ROM or the World Wide Web offers teachers increased portfolio options. Audio, digital photographs and video clips of student presentations could be included. The participants could cross-reference their work without needing multiple copies in the portfolio. They would also be able to tailor their e-portfolio to show their individual personality and efforts. Future updating of their e-portfolios would also be easier, as would quick and easy organisation, indexing and searching. For the course tutors, on a logistical level, the problem of physical storage of portfolios could be eliminated.

On the cognitive plane, some authors have noted that the move from paper-based to hypertext portfolios affects the producer's thought processes

(Fischer, in Chappell & Schermerhorn, 1999). They believe that hypertext encourages 'multifarious ways of thinking' in juxtaposition to the linear thought processes involved in creating paper-based portfolios by allowing students to engage in deeper logic order and sequential thinking, and project planning and implementation.

Conclusions

Nowadays in third-level learning and teaching, with its shifting emphasis on student learning, teachers are asked to engage their students in higher-order thinking skills, to be reflective about their own practice, to integrate evidence of their students' learning and to actively work with colleagues to continually re-examine their practice and the curriculum (Lyons, 1999a). This seems a tall order for the already overworked and often stressed academic. In this new millennium, the postgraduate certificate and its teaching portfolio process integrated with an experiential model of learning is an attempt at providing a scaffold and support mechanism for the third-level teacher of today in order to make a difference in teachers' practices and in the lives of their students.

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