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2011-01-01

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Recommended Citation

Donnelly, R., Fitzmaurice, M.: Towards Productive Reflective Practice in Microteaching. Innovations in Education and Training International, Volume 48, Issue 3, August 2011, pages 335-346.

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Towards Productive Reflective Practice in Microteaching

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Summary

This paper details a small-scale, research study into lecturers' perceived impact of microteaching within a postgraduate certificate in teaching in higher education in Ireland. Participants engage on the programme for a range of reasons: to broaden expertise and knowledge beyond the disciplinary boundaries within which they primarily operate; to build on and develop their scholarly profiles; and to reflect on their teaching experience to date. Participation in microteaching has provided a sense of validation for much of what these lecturers do and how they do it, which has resulted in ongoing critical reflection and peer discussion. Although initially giving rise to anxiety among some participants, microteaching has led to greater self-awareness and increased confidence in participants' own ability and expertise, and a reaffirmation of their teaching style and practice. There is a role for academic developers to support lecturers to be reflective and reflexive in order that they can create their own professional knowledge. The microteaching sessions provided an opportunity for the lecturers to gain insights into their

teaching role, engage in dialogue and become more reflective about their practice. It is believed that this is a welcome addition to the professional life of a lecturer.

Keywords

Collegiality; Microteaching; Peer Observation of Teaching; Professional development; Reflective practice; Reflexivity; Teaching in higher education.

Introduction

The context of this paper is in a microteaching scheme for academic staff on a Postgraduate Certificate in Third Level Learning and Teaching. The programme is offered to a wide range of academic and academic support staff in a higher education institution in Ireland. Thirty members of academic staff from this programme in 2006-07 participated in the microteaching scheme for the purposes of this study. The varied disciplines and backgrounds from which participants come, as well as the professional and collegial atmosphere within which microteaching discussion and learning takes place on the programme has been instructive, challenging and rewarding for all involved.

In the context of this professional development programme, microteaching can be defined as a method of practice teaching in which a videotape of a small segment of a student's classroom teaching is made and participants have an opportunity to analyse footage of their teaching in structured and prompted ways. So, in essence, microteaching is a scaled-down, simulated teaching encounter and its purpose is to provide the lecturers with an the opportunity to develop their teaching practice. We do not claim that this is a substitute for teaching practice but our research indicates that there is much to be gained from the experience. It offers distinct advantages such as: close supervision; manageable outcomes established according to individual participant needs and progress; feedback;

an opportunity for self-evaluation; and immediate guidance in areas of demonstrated shortcomings or in previously identified problem areas by the participant themselves, so that the locus of control in the session always remains with them.

This paper reports a qualitative case study exploring the impact of the scheme, and discusses the implications for academic professional development. Although we are documenting personal and local experiences, the Irish experience can have more general interest as it mirrors discussions that have taken place in the wider academic development community, and reflects pedagogic issues that face teachers from a wide variety of disciplines.

Context

The programme is located within an Institute of Technology in Ireland. As academic developers, we are committed to supporting pedagogic research and the development of teaching. In the field of professional practice the importance of becoming reflective practitioners (Schön, 1983; 1987) has gained considerable currency in recent years. Macfarlane (2004) believes the shift in favour of reflective practitioners has been hugely influential in the emerging field of educational development for teachers in higher education. At the heart of the tension facing lecturers today is the balancing of the discourse and practice of student-centredness and active learning strategies combined with self-reflection. Race (2001) has suggested that setting up the climate and structure for peers to observe each other's teaching provides a myriad of opportunities for the lecturer: to learn about oneself and others; to build confidence; to increase awareness of student

learners; to practice how to give and receive positive and negative feedback; and to develop collegiality.

Course and Participants

The Postgraduate Certificate programme is mandatory for new academic staff and voluntary for existing staff. The former tend to be apprehensive about teaching for the first time, and are keen to learn more about teaching and assessment strategies and designing curricula. The latter are experienced lecturers who want to try out new learning strategies and explore specific pedagogical areas of interest.

Each year, the participants on the programme are drawn from very diverse fields and have spent varying lengths of time as lecturers from newly appointed staff to the institution, to those that have been teaching for anywhere between 5-25 years. Within this continuum, there is also a wide range in knowledge and experience about pedagogy. Our experience of working with the participants is that this multi-disciplinary setting provides for interesting and critical discourse about teaching and learning.

Theory and Practice

This section will describe the microteaching in more detail and provide the theoretical framework for the discussion and we draw together three interrelated concepts: reflection on practice, reflexivity and peer observation of teaching.

The format of the microteaching sessions was presented early to participants; there would be two sessions per module, each of three hours in duration. Both were to be filmed and transferred to streaming video, which was subsequently integrated with the virtual learning environment supporting the programme. Streaming video is a sequence of "moving images" that are sent in compressed form over the Internet and displayed by the participant as they arrive. Participants can view their microteaching sessions on high quality, streaming video on their computers at home or in the workplace. Gross-Davis (1993) advocated that the use of videotape to view and listen to one's teaching performance from the students' perspective is a very valuable experience because by

> *analyzing a recording of the dynamics of your classroom, you can check the accuracy of your perceptions of how well you teach, identify those techniques that work and those that need revamping* (p. 34).

Moore et al. (2007) believe that "undertaking to look at yourself through other people's eyes is a revealing and sometimes disturbing exercise" (p. 15). In the immediate confines of the microteaching session, observing oneself on video involves experiencing self-consciousness and uncertainty. However the benefits extend far beyond this by furnishing you with perspectives that support you in building upon strengths, exploring weaknesses and providing greater understanding of classroom interactions.

The tutors have a clear role in establishing the right climate conducive for the exchange of ideas and commentary on teaching performance. However, the tutor is not an expert who alone will make comment on the teaching but rather the tutor will facilitate a

dialogue so that practitioners gain special insights and create new knowledge. Each lecturer is an active agent in the construction of professional knowledge and the focus is on improving professional practice through inquiry. However, participants find it difficult to engage in meaningful dialogue about teaching without the benefit of structured models for self-analysis. Drawing on Loughran (1996) participants are asked to think about reflection as involving anticipatory reflection, contemporaneous reflection and retrospective reflection. Time is given at the start of the session for participants to write down their thoughts and reflections and during the session each individual is encouraged to record their thoughts. Finally, time is set aside at the end for each individual to reflect on the experience and to capture in writing their feelings and thoughts about their own self within the practice of teaching.

A great affordance of the technology is allowing the participant to review their video over and over again, thus building up a tolerance for seeing themselves in action and allowing a more detached stance to be taken with regard to their performance. Coupled with this are the benefits accrued by peer conversation about the microteaching session. Teaching strategies and styles become the focus for discussion amongst the participants.

Reflection on Practice and Reflexivity

There is a growing body of literature on reflection in the context of teaching in a higher education setting (Brookfield, 1995; Kreber, 2005; Lyons, 2006). Critical reflection helps the learner to describe experiences, to analyse what they have learnt from those

experiences and to offer a process of judgement by which they might frame current or future experiences (Brookfield, 1995).

Dees et al. (2007) have developed a teaching/learning transactional model to provide a framework to guide reflection. The model has a number of components and of interest in this context is the teacher component of the model, which highlights the importance of reflection along several dimensions: understanding how our own life stories impact our practice; identifying our awareness of the in-the-moment factors that affect student learning; and identifying how an individual teacher defines the role of a teacher in the process of learning (Dees et al. 2007, p. 133).

Each of the dimensions require on-going reflection. It is our view that the microteaching sessions which required preparation and provide for guided reflection before, during and after the session and also for peer feedback could contribute to supporting lecturers to reflect on some of the dimensions outlined above. Warin et al. (2006) argue that self-awareness is an essential tool for teachers and that reflective practice is essential to this capacity to integrate and make sense of the self. They emphasise 'a crucial and perhaps overlooked element, that is incorporated within this expansive concept; the teachers' attentiveness to self-in-practice' (Warin et al. 2006, p. 243). There is a subtle but important change of emphasis from reflective to reflexive as a way of concentrating on reflection of the self within teaching. Reflexivity is frequently confused with reflection although some would argue that the two are inextricably linked. Payne (2002) argues that:

> *reflexivity means that we are constantly getting evidence about how effective or worthwhile our actions are, and we can change what we are doing according to the evidence of its value. To do so, of course, requires being reflective* (p.127).

Fook (2002) comments that they are not mutually exclusive and the process of reflectivity may assist reflection.

We were interested in providing opportunities for developing this reflexive form of reflective practice and aware that generating reflection of this kind takes time and calls for spaces, places and strategies which can enable it to happen. Developing such knowledge is a continuous life long process; however we believed that the process could be facilitated for lecturers by providing opportunities for reflection in the postgraduate programme. One of the problems with self-reflection is that it can become too introspective and uncontested (Moon, 2000) and it is of key importance to provide peer and tutor feedback to support individuals to question assumptions and values. The microteaching sessions encouraged open examination of teaching and provided opportunities for participants to make explicit the thinking underpinning their own practice as teachers.

Boud (2006) introduces the notion of productive reflection and one of the key features of this is that it is not focused on the individual independent learner but has a collective dimension. This will be developed in a subsequent section. Fook (2006) articulates a framework for critical reflection which emphasises the individual in a social context and

argues for collective applications of critical reflection. In the microteaching, the individual experience is the starting point but because of the structure and process involved, there is a collective dimension.

How it Worked in Practice

The aim of the study was to explore the effectiveness of the microteaching element of the programme with a view to improving it. Data was collected from 30 participants through a qualitative questionnaire which was presented to the participants at the end of the microteaching scheme. It consisted of a series of open questions under three main headings: understanding of microteaching, the logistics of the microteaching relationship (how many per group and the purpose of the scheme), the microteaching experience, the main issues discussed in feedback, the perceived advantages of this scheme, difficulties encountered, and the influence on professional practice.

Qualitative data often relates to a small sample size as is the case with this research but if small in scope, they compensate in the sheer scale and complexity of the data (Bryman & Burgess, 1994; Brewer, 2000). Whilst there are variations in how analysis is understood and carried out but for all researchers, it is a central and complex task and a disciplined approach is necessary (Atkinson et al., 2003). Qualitative thematic analysis was employed by the researchers and the approach followed the general guidelines of analysing the written data for significant phrases, developing meanings and clustering them into themes and presenting a description of the themes (Creswell, 2007). In the first stage the questionnaires were read several times to get an overall sense of what was being

said. The next stage involved noting in the text margins significant statements or phrases and these statements were then grouped into larger units of information (themes) and in this context the themes were representative of elements that occurred frequently in the text.

Feedback From Participants

There were six microteaching groups per cohort of 30, with an average of five participants per 3 hour session. It was generally agreed that a maximum of 5 per group was ideal for a 3 hour session in order to enable sufficient feedback. Participants found it to be a very useful part of the programme and while '*it is quite a false situation it is the closest we can get to a live classroom in this context'*. Boud (2006) argues that practice must be discussed within the setting in which it occurs because "When it is disaggregated from its settings it loses many of its features of practice" (p. 4). It is important to be cognizant of this but while attention was drawn by many of the participants to the '*artificial*' nature of the experience, it did allow individuals '*to get a sense of one self as a teacher'*. The two main themes that emerged from the analysis were:

- *Learning from observation of peers and self observation*
- *Becoming a Reflective Practitioner*

The use of direct quotes is used extensively in this section of the paper to provide evidence of both the shared enthusiasm for the microteaching process and also some real concerns voiced by the participants. Whenever possible by using the words of the participants themselves, key issues will be highlighted.

Learning from observation of peers and self observation

Microteaching played a dual role as participants learnt from observing their peers and from self-observation on video. Observing others from a multitude of disciplines in the microteaching group is a refreshing and insightful experience for the participants. There is no doubt that 'teaching requires creative responses to multiple demands in a turbulent higher education environment' (McLean, 2006, p. 76) and the participants found in the microteaching a chance to see other lecturers put creative strategies into practice. They benefited from the discussion around the different approaches and in some cases, they were able to use the approaches in their own practice.

Through analysis and discussion of others' teaching styles, the participants were able to attain a level of self-awareness and observing others in the microteaching group enabled participants to refine their ability to define and distinguish characteristics that promote a quality student learning experience.

> *From the microteaching I extracted ideas and possible improvements to my lectures. Role play in an engineering communications class is one that I will now implement next semester. I believe it can be positive for improving student engagement and retention.*

As the teacher aspires to creating a learning environment there is a realisation of the importance of planning, structure, pace of delivery and strategies for student engagement and 'good teachers lay the groundwork for stimulating their students, arousing their desire to learn' (Filene 2005, p. 7).

I was surprised how much I learnt from observing others teaching on other disciplines and how basic good teaching techniques crosses all disciplinary divides.

I felt I got most benefit from microteaching by observing my colleagues and getting new ideas. In fact I integrated the Google-sketch-up into my own drawing class later in the semester.

Fook (2006) points out that a process that is primarily focused on personal learning from personal experiences can yield concrete results and changes in relation to other people.

New lecturers often commented that they gained reassurance from receiving positive feedback from their peer in the group. Many have limited teaching experience and displayed some anxiety and uncertainty in their own ability; positive feedback, which perhaps has been unavailable in the past, has for some, extended beyond reassurance to giving them the confidence to try novel methods too.

The feedback was insightful and contained many thought-provoking ideas. I would like continued access to the feedback from my peers in my group, via technology.

The microteaching provided an opportunity for participants to think critically about their practices and classrooms activities and many have been motivated to challenge some of their approaches and consider some change.

I learnt that I was being too repetitive in the delivery and I was blocking the screen for some viewers and I did not complete all sentences. I can now take

specific action to remedy these issues and move forward. It is very easy for things like this to become a habit but I am now aware of them and can address each.

Systemic change inherently includes the re-examination of beliefs and assumptions about one's own professional development. Understanding that the process of change cannot be mandated, takes time, and may be uncomfortable is all part of the learning from microteaching.

I was very deliberate about implementing changes between the two sessions, and made a special effort to do so; repeated watching of the video has revealed that more improvement is required and this will be an ongoing process.

By engaging in the process of microteaching, the participants were learning that professional development must be an on-going process of refining skills, inquiring into practice, and developing new methods. Through enabling each teacher to engage in a collegial and collaborative dialogue with other teachers in the microteaching group, all had the chance to broaden the knowledge and expertise needed to guide students toward more successful learning in their disciplines.

I have increased interaction with my larger classes, and break up didactic lectures at least every 20 minutes with activities. I have reflected now upon the multicultural element to my classes and am planning to adapt my teaching accordingly. I have also started to increase the use of technology in my classes through podcasts of my lectures and making these available to students for revision.

I involve my students more with the class; I show the learning outcomes at the start of each lesson and ensure that I use relevant AV aids for my presentations, including the electronic whiteboard. I open many of my classes now with a question to direct the flow of the interaction towards my students. I also bring in current newspaper articles relevant to the topic of the day.

The above quotations are a selection drawn from the data set to give a sense of the perceived impact on practice. There is clear evidence of a growing self-awareness and 'attentiveness to self-in-practice' (Warin et al., 2006. p. 243).

Self-reflection, self-questioning, openness and a willingness to engage are contributory factors in such developmental activity. In each session the opportunity was created for each lecturer to give consideration to what they do in their teaching but there was also a focus on reachinf an understanding of the varied circumstances under which each individual lecturer works. Each session was seeking to contribute to what Bell & Mladenovic (2008) suggest is a transformation to some extent of the participants' educational perspectives and also served to develop collegiality.

Becoming a reflective practitioner

Van Manen (1991, p. 205) argues that '*the experience of reflecting on past pedagogical experience enables me to enrich and to make more thoughtful my future pedagogical experience'.* Creating the space for such reflection is a first step to becoming reflective

about our work and the microteaching sessions clearly gave space and opportunity to the participants to think about their own teaching.

> *The written reflective exercises around microteaching were excellent for thinking over what you have done and about ways to improve and adjust lessons to improve them.*
>
> *As a developmental and to a lesser extent, self-appraisal activity it has allowed me to reflect on my practices and to acknowledge my strengths and have them acknowledged. I have an increased interest now in improving my practice.*

It has to be acknowledged that different level of reflection can be produced ranging from description to profound and critical reflection. Gelter (2003) agues that “reflective capacity . . . has to be learned and encouraged” (p. 337), and the microteaching element on the programme is an attempt to do this.

> *Reflecting on my understandings, feelings, actions and trying out new ideas was so refreshing for me; the main thing this has done is enable me to reflect more broadly on learning and teaching.*

The ability to look at their practice with 'fresh eyes' and a deeper understanding of the learning processes has enabled lecturers to become more reflective and aware when planning their lessons and when making decisions in the classroom. Through a process of reflection, lecturers reported a change in the personal qualities that they were able to bring into their teaching. Some commented on feeling more enthusiastic about their job, while others wrote about feeling more confident in their teacher role. It is clear from the

data, that microteaching provided an opportunity for the lecturers to ‘stand back’ from the immediacy of teaching and identify aspects of their own practice.

> *The exercise led me to think about the potential benefits and desirability of school-wide reflection and discussion as well as about the role of academic leadership or its absence in cultivating a culture of reflective, professional development and interest in best practice.*

Anxiety/Negative Experiences

The microteaching sessions are part of trying to create situations for discussion and dialogue around teaching so that individual practice is examined and reflected on by participants. However it is an artificial situation, and the feeling of participants in this regard is captured in the following quotation:

> *There was an artificial context in microteaching; I feel it is unrepresentative and subjective.*

While acknowledging this issue there was an attempt to make it less subjective by ensuriong discussion and constructive critique of the key teaching role of each participant. Prior to this, teaching had been a solitary pursuit but the microteaching treats teaching as a collaborative, communal activity. As Shulman (1993) points out, because teaching has not been included in the “community of scholars, we experience "pedagogical solitude” (p. 6). Through the microteaching scheme, the participants are offered ways to learn themselves how to energize their teaching and how to become learners themselves. However, by its very public nature, there were likely to always be

concerns, and this lessens with practice. The following quotations are representative of the kinds of concerns and anxieties that lecturers wrote about:

> *It was stressful to compress my topic into 10 mins and the idea of a camera filming me was intimidating. As a non native English speaker I think these circumstances affected my ability to choose the appropriate vocabulary.*

> *It is very daunting and nerve racking to present a lesson in front of your peers and have this recorded on camera. This is my first year lecturing and I have felt that sometimes when I take a reflective and retrospective look at my day's work, I wonder was I on control of it, or was it in control of me?*

The microteaching did present challenges and gave rise to real anxieties as evidenced in the comment above because teaching in front of peers is not something that we do much of as lecturers. Pelias (2004) writes about the capacities of lecturers being challenged and he believes that never will their capacities be more challenged than when they have to share a programme. The lecturers were required in the microteaching sessions to teach a part of their course and thus share it with others. There can be no doubting that for some it was a very daunting exercise but the concerns were generally lessened once the actual teaching began as they grew in confidence from knowing their material and wanting to engage others with it. However for the last participant quoted, the anxiety was problematic and affected his/her ability to share the lesson and to learn. It is important to be very cognisant of this and in the future more time will be spent preparing the scene so as to lessen the possibility of this happening. The need to be clearer in

presenting the rationale for the microteaching exercise and discussing it with participants is vital.

Proposed Future Development

As a direct result of this study, both tutor and participant conceptions of reflection have shifted to encompass a wider range of practice than hitherto conceived. Critically engaging with the concept of productive reflection (Cressey & Boud, 2006) has instigated the development of a framework for future microteaching on the postgraduate programme. Table 1 outlines the key features of this framework of productive reflection in microteaching.

Features of Productive Reflection	Microteaching Context
Organisational rather than individual intent and a collective rather than individual orientation	Emphasis is on reflection through a teaching portfolio that leads to action with and for others; shared interests of the microteaching group are included.
Reflection is necessarily contextualized within work; it connects learning and work	The reflections now lead to interventions into teaching activity to change what is happening on the basis of insights into what occurred previously.
Multiple stakeholders are involved	Processes and outcomes of productive reflections are not confined to one group within the scheme; connections to departments and schools are made.
It has a developmental character	Confidence is built that those reflecting can act together in meaningful ways and develop their own repertoire of approaches to meet future challenges in their institution.
It is an open, unpredictable process, dynamic and changing over time	There are unintended consequences as it deals with matters in the microteaching group that do not always have a ready solution and are not clearly formulated.

Table 1 Productive Reflection within Microteaching

Productive reflection within the microteaching scheme now highlights concerns about the need for new ways of considering reflection in workplaces in higher education institutions that are not focused on the individual independent learner; it engages with the context and purpose of work and with the imperative that reflection in such settings cannot be an individual act if it is to influence work that takes place with others.

One final change to the microteaching scheme was as a result of one of the participant's suggestions that a set of criteria might be useful to help to structure feedback, involving the use of a set of formative feedback prompts:

> *I would have liked more balance between positive and negative feedback.*
>
> *Maybe having a set of criteria would provide more structure for feedback.*

Conclusion

It is well established in the world of professional practice that to make sense of what we see, hear, experiences and do, one needs to be able to reflect in and on practice (Schön, 1987). The reflexive turn of which Moore (2004) writes is the 'capacity and willingness to carry away our experiences responses and initial understanding and to analyse them form a variety of perspectives' (p. 150). Findings from this qualitative study show that many participants have learnt from peers and from reflection on their own teaching. The learning from microteaching has been reported as having a direct application particularly in terms of its impact on individual teaching practice and how participants approach course development and delivery as well as how they view the potential of collaboration with colleagues. There is an important role for educational developers to

support lecturers to be reflective and reflexive in order that they can create their own professional knowledge and create spaces for sincere and collective self-reflection and open up dialogue. It is our belief that the microteaching sessions provided an opportunity for the lecturers to gain insights into their role as teachers, to engage in dialogue, to find their own voices and ‘to create new scripts for their work in classrooms’ (Beattie, 2007, p. 2).

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