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(recto) *Explicit modelling of pedagogy to student teachers*

ARTICLE

Working towards explicit modelling: experiences of a new teacher educator

As a new teacher educator of beginner teachers on the Graduate Teacher Programme in a large School of Education in a UK University, I have reflected on how I have been able to develop the effectiveness of modelling good professional practice to student teachers. In this paper I will present ways in which I have made modelling more explicit, how students have been given opportunity to reflect on what they have learned and how they learnt it, and the responses of students to the modelling. By developing the effectiveness of modelling in combination with an open dialogue and reflective practice, I discovered that my students were able to articulate their learning more clearly.

Keywords: modelling professional practice; reflective practice; explicit modelling; teacher education; self-study; metacognition

Title Page Footnote:

Introduction

In the UK there are a number of different routes to becoming a qualified teacher. The Graduate Teacher Programme is one of the employment based routes into teaching where it is possible to train and qualify as a teacher while working in a school. The programme is usually a year in length, and each student spends four days a week employed in a school as an unqualified teacher. The fifth day is spent either within the University on the professional learning course, completing tasks in school or visiting other educational settings designed to give students a broad educational experience. The purpose of the programme is to produce competent teachers who have securely evidenced the standards for Qualified Teacher Status (TDA, 2007). Each year there are about 130 students on this course. I lead the professional learning course, which includes core generic sessions that are delivered by me (a secondary specialist), and three other teacher educators (another secondary specialist who is a more experienced teacher educator, a primary specialist and an early years specialist). A range of subject specialists also teach on the course.

As a new teacher educator I have examined some of my beliefs about teaching, to help establish my own professional identity. One of my strongly held beliefs, along with many other teacher educators, is that it is important to 'practice what you preach' (Lunenberg et al., 2007). There is a danger that teacher educators 'tend to tell and then assume that theory will be enacted in practice' (Russell, 2007, p.189). In this situation, the teacher educator transmits information and may not support effective learning. In order to promote learning with understanding, opportunities can be planned for students to talk together as they engage with the teaching material, as this gives them time to develop their ideas together as a community of learners (Cerbin, 2000). This provides an opening for students to relate the concepts and ideas that are presented into their setting, so that they can modify their practice and interpret their experiences in relation to educational theory (Eraut, 1994). By jointly planning interactive sessions with my secondary colleague, we aimed to model good practice for students to follow in their classrooms (Lunenberg et al., 2007). Before our first year of teaching this course, we redesigned the generic sessions to include more interactive strategies, so that students could engage more deeply with the content. Loughran and Berry stress the need to 'model the use of engaging and innovative teaching procedures for our students rather than deliver information about such practice through the traditional (and often expected) transmissive approach' (Loughran & Berry, 2005, p.194). Naively, I assumed that planning and delivering such a programme would meet with the approval of the students, and be effective in enabling them to teach in a similar way (Figure 1).

Modelling interactive teaching strategies brought a mixed reception from the students training to become secondary school teachers. Some were unhappy with the few sessions that were lectures, feeling that they were too passive, and they preferred a 'hands-on' approach. Other students preferred a lecture, rather than a range of activities. They saw the activities as 'light-weight' and time consuming. From the end of term questionnaires there seemed to be a gap between our teaching intentions and the perceptions of some students. This gap is what provoked my self-study. The students training to become primary school teachers did not respond negatively to the use of modelling interactive teaching methods during their sessions, so I have concentrated on the students training to become secondary school teachers in this study. It is possible that the difference between these two groups of students could relate to how they see themselves teaching. Students training to become secondary school teachers may have an internal model of practice from their own experience as pupils which may be more of a 'transmission' model while primary teachers would expect to engage their pupils in activities. This could have implications for how the secondary students respond to the professional learning course and to how they subsequently work in school. It may be that this approach is challenging their model of how to teach in a secondary school and they will have to think about their role and identity.

Eraut (1994) observed that there can be a significant difference between the theories that many professionals promote, and the ways that they work in practice. Argyris & Schon (1974) recognise that integrating our theory and practice is an intellectual challenge. As professionals we hold an ‘espoused theory’ of action for a situation, which is what we tell others about how we would behave in certain circumstances. However, when this is compared to our ‘theory-in-use’ we may not find these theories to be congruent. I felt happy that my espoused theory was congruent with my theory-in-use, because this is what I had deliberately set out to do and because this was confirmed by colleagues who observed, planned or taught with me. However, some of my students struggled with the experience of sessions planned for active engagement as they felt frustrated and did not want to learn in this way. The purpose of my self-study was to examine my own practice as a new teacher educator, for my own professional development and to better meet the needs of my learners. In sharing my self-study I hope to offer fresh perspectives about using explicit modelling and reflective practice to develop student teachers (Loughran & Northfield, 1998; Bullough & Pinnegar, 2001; Lunenberg et al., 2007).

As a teacher, by reflecting-in-action, I am researching my practice in my particular context. I am reflecting on my tacit theory-in-use, so that I can inspect the hidden understandings that I have developed. A teacher, who does not reflect on his or her own practice, keeps intuitive understandings hidden and mystifies their practice (Schon, 2003). This is not helpful in the teaching of others. I need to understand better how I think and act, in order to make my own professional knowledge explicit to my students. Exploring my own ‘theories-in-use’ has been an on-going process which has been greatly helped through team teaching, personal experience of learning at Masters’ level and professional dialogue with colleagues. Learning how to teach is different to learning about a theory or learning to apply a theory, but rather it is internalising a theory so that practice flows naturally from it. Learning to teach can take place through imitation and subconsciously absorbing habits in a community of practice. However, if teachers do not know the tacit theories they hold, then it is hard for them to examine their actions in order to consider alternatives and to explain and teach them to others (Argyris & Schon, 1974). I can empathise with my students as they try and make explicit knowledge tacit, internalising ideas and embedding them in their practice, as I am also trying to do this in my teaching. As a teacher educator I have an additional dimension to handle, that of making my theories-in-use explicit, explaining my actions to the students (Figure 2) (Swennen et al. 2010). This is a metacognitive process, learning about the process of learning and teaching, described as ‘meta-learning’ by Loughran & Berry (2005). If I do not do this, then my students could find it hard to realise the principles that I am using to govern my practice.

In this study I have reflected on my practice in the light of discussions with more experienced practitioners, watching two of these practitioners in action on Teachers’ TV, and reviewing relevant literature. I then looked at ways that I could help students to change their perceptions where these were reducing the effectiveness of their learning experience. The ways that I tried to do this were by making my modelling more explicit, developing a dialogue with my students and by providing a structure to guide their reflections on the professional learning course.

Initially this un-picking of what I believe about teaching & my own theories-in-use whilst trying to teach with integrity, and in a new context, caused me a lot of cognitive challenge. It felt very cyclical, examining my tacitly held knowledge, matching it up with learning theory, making sure I was putting it into practice by embedding it again. I also felt vulnerable to criticism for not being a perfect example of how a teacher should be. However, the more I understood about my own teaching, the better I could make my own beliefs explicit to help the students, and the less worried I became about not ‘being perfect’. The open dialogue with the students helped me to further understand myself and my teaching better, and to grow in confidence in my newly developing professional identity.

Research and reflections on modelling good professional practice

I have researched different ways that more experienced teacher educators use modelling in their sessions, from watching 'lectures' on Teachers' TV, reading relevant literature and through professional conversations (Schuck *et al.*, 2008) within the School of Education. Teachers' TV is a UK government funded television channel that supports the professional development of anyone working in school. Through providing videos online it enables education professionals to learn from each other, especially by observing classroom practice which might otherwise be difficult to access. I have found it a particularly helpful tool for personal professional development, because it is available at the convenience of the user, and can be watched repeatedly to analyse and evaluate the pedagogy observed. It is also possible to discuss practice with other colleagues and with other professionals in the online community of practitioners. The two lectures that I analysed in particular were interspersed with explanations by the lecturers of their methodology, making their modelling more explicit (Graham, 2008; Jarvis, 2008). One drawback of using Teachers' TV in this way is that, although it appeared both lectures were well received at the time by the students, it is not possible to find out how effective the sessions were in influencing the practice of the students.

The lecture on creative teaching (Graham, 2008) modelled being fun, creative and interactive in teaching. Additionally, Graham modelled developing rapport with the learners by identifying with their feelings. Similarly, the lecture on pedagogy (Jarvis, 2008) modelled a range of professional practice, as Jarvis modelled her own pedagogy. This included the use of visual aids, storytelling, talking partners and role play. Jarvis also modelled her professional values of developing her relationship with the learners by sharing her personal experiences and valuing the learners' own experiences. Other aspects of professional practice that can be modelled by the teacher educator include building a learning community by developing positive and inclusive teacher-student relationships, through listening and respect (Russell, 2007). It is possible to model many aspects of professional practice deliberately e.g. planning and practical skills and specific teaching strategies, but often we are modelling aspects of professional practice that we do not realise, e.g. professional relationships with colleagues through team teaching, professional values of inclusion and personalisation.

Having observed both these lectures for students training to become primary teachers, there are some aspects of modelling that might not be directly applicable to the students who are training to become secondary teachers, or if they are used directly they may need careful handling to avoid students feeling that the sessions are patronising, or designed for 'a younger audience'. It may be that students who are training to become secondary teachers have a longer journey to go in their own thinking before they can receive input in a way that may be outside their current experience and to perceive the value of this.

Another caution would be to consider how much the intended learning itself will be remembered by the students rather than the activities themselves. Also, if an interactive strategy is not well received by students, it could cause them to reject the theory behind the strategy. Similarly students may reject a strategy if it does not translate directly into their context (Jarvis, 2005). There needs to be a balance between curriculum content and process, as there are time constraints on the professional learning course. Some aspects of the course content can be taught effectively using interactive teaching strategies, but sometimes it is less easy to use a teaching style that favours student enquiry when there is a large amount of knowledge to acquire (Moore, 2000). A further caution regarding using a lot of interactive teaching strategies is to avoid becoming task-driven, rather than student-focussed. Listening to students is vital in establishing an effective learning community.

Making modelling explicit

Modelling good professional practice is important (Figure 1), but it is not enough (Lunenberg et al., 2007). From the end of programme questionnaires there was a mixed reaction from the students, some preferring lectures and others preferring an interactive approach. Through professional conversations with more experienced colleagues and from observing the two lectures on Teachers' TV, the need to be explicit about modelling became more apparent. I needed to think how I could 'reveal my thought bubble' as I taught, so that my learners could understand why I was asking them to do different activities. This would reveal my metacognitive processes, so that students could learn to explain their own thought processes. This was important to avoid unthinking practice which would then be beyond critical reflection (Eraut, 1994). Crowe & Berry (2007, p.32) call this 'learning to think like a teacher', and they outline the importance of students being given opportunities to: experience the perspective of the learner; hear the thinking of experienced teachers and to verbalise their own thinking to develop it further. McClanahan (2008) also found that teacher educators cannot assume the metacognitive aspects of their teaching are obvious for the students, and that they need to be made explicit. Sharing our hidden thinking is a process that needs a supportive environment, and can only be done in the context of responsive relationships between teacher educator and student.

Boyd & Harris (2010) found that teacher educators do not have a shared conception of modelling, with some taking it to mean role play whilst for others it is explicit reflective learning where the tutor explains their own reasoning about their practice. From my experience of working towards explicit modelling, I would see these as opposite ends of a continuum, and that role play may represent modelling without explanation, whilst there are ways of making the learning intent of modelling explicit including: just stopping to point out what is being modelled at different points (Graham, 2008; Jarvis, 2008), talking through when things go wrong in a session; explaining the reasoning behind the room set up; explaining the learning theory that relates to a certain practice; modelling poor practice and identifying issues with students; providing a written rationale of session and using video to capture moments of teaching, then explaining thinking behind it, as illustrated by the Teachers' TV methodology (Graham, 2008; Jarvis, 2008). Loughran & Berry also used professional critique (both of their own teaching and their students' teaching), journalling, team teaching and pedagogical interventions to make their teaching explicit, rather than just saying what is being modeled (Loughran & Berry, 2005; Loughran, 2006).

Teaching is very complex as there are often conflicting priorities in the classroom, and experienced teachers are not always aware of their own 'theories-in-use' and their professional knowledge is tacit, or hidden from student teachers, especially during lesson observations carried out by student teachers (Argyris & Schon, 1974). New teacher educators have extensive knowledge and understanding about teaching obtained through experiential learning, it is recognized that this knowledge may be largely tacit and contextualised (Murray & Male, 2005). Part of the process of establishing my new professional identity has been to examine my theories-in-use to make them explicit to student teachers (Figure 2). This can lead to a learning dialogue, as it creates the opportunity for students to question me about my practice. Sharing some of the dilemmas that occur in the classroom publically with my students can put me in a vulnerable position. However, my classroom needs to be open to enquiry to improve my own practice. If my teaching is not examined, then I could give the impression that it is more important to teach, than to reflect on my practice (Loughran, 2007). Additionally, the problem of unintentionally modelling poor practice can be exposed and corrected through effective feedback from students and colleagues, if handled sensitively. When I have established an environment of low threat, where my students can express themselves, I feel more able to become a learner with my students, as well as facilitating their learning. Further, implicit modelling can be made explicit, in a personalised way, when students are being mentored.

Developing students' reflective practice

Simultaneously with making modelling more explicit, I introduced written reflections as part the plenary at each session of the professional learning course, to help to embed deeper thinking about ways of teaching and to facilitate translation into the practice of my students (Lunenberg et al., 2007). Students spent ten minutes completing a page in their file, reflecting on (1) what they had learnt from the session, (2) strategies used to teach the session and (3) target(s) for their teaching (to be discussed in school with their teacher mentor and put into their individual training plan). At the beginning of the next session, students returned to this page and added (4) the learning that they had applied from the session (5) what they still needed to learn and (6) how and when they would do this. Sometimes the plenary followed a discussion of what had been modelled during the session. These reflections were sometimes shared verbally between students, and sometimes opportunity was given to look at each other's written reflections and to give each other constructive criticism.

This is likely to have contributed to the high standards of reflective work amongst the students and enabled them to articulate their learning. Comments from a recent Ofsted inspection confirmed 'The training is coherent and effective in producing reflective students' and 'much of the reflective writing from students is of a very good quality' (Ofsted, 2009b). Ofsted (Office for Standards in Education, Children's Services and Skills) is the UK government agency which regulates and inspects schools, initial teacher education and other educational institutions with the aim of raising standards (Ofsted, 2009a).

Monitoring the response of students to the modelling

The response of students to the changes in the professional learning course was monitored through informal feedback and anonymous questionnaires completed at the end of the each term, where they rated different aspects of the programme and commented on the aspects they found most effective/supportive and aspects that could be improved. These questionnaires took the form of qualitative open comments, to elicit serious and informative responses (Bell, 2007; Smith & Welicker-Pollak, 2008). I did not take a sample, but encouraged all students who would like to, to participate. This produced a large number of student respondents (over 77%) so that any non-take up would not have had an undue influence on the representativeness of the results (Bell, 2007).

A small sample of the comments regarding how the professional learning course helped to develop students' teaching is recorded in Table 1. Although these questionnaires were not designed to specifically gather information about the impact of modelling, the comments were examined to find examples that were likely to have related to the use of interactive teaching strategies that were explicitly modelled and reflected upon in the plenary. There was a marked increase in the number of comments where students training to be secondary school teachers were able to be very explicit about how they had directly applied their learning into their own practice, and how they were actively reflecting, after these changes were introduced to the professional learning course. They were more aware that their learning had directly improved their teaching and their pupils' learning. Looking back at the questionnaires from previous cohorts of students training to be secondary teachers, there were few comments of a similar nature to these. This was the second cohort to experience the newly planned professional learning course where new views of learning (Lunenberg et al., 2007) underpinned the generic sessions, but the first cohort where modelling was deliberately made explicit by both of the teacher educators delivering these sessions.

At the end of the programme the students were invited to complete a survey on modelling good practice. They were asked to comment on an example of modelling that they remembered from the professional learning course, and in what way they had used it in their teaching. They were also asked if there

were unhelpful aspects of modelling. They were not asked to comment solely on what had been explicitly modelled during the course, nor to recall all the times that modelling was apparent to them. I was interested primarily on whether modelling had impacted their practice. Through doing this, I was able to find out what the students perceived as having the greatest impact. Their comments are divided into those that reflect professional attributes and those that relate to professional skills (Table 2). 26% of students volunteered to complete the survey. The survey on modelling good practice revealed that 5 students were concerned with the few sessions where educators had not used interactive teaching strategies. These may have been references to a few of the subject specialists who were more didactic in their teaching methods. 1 student found some of the strategies used a ‘little patronising’, which may indicate a preferred learning style, discussed below. However there were 10 comments about professional attributes and 23 comments about professional skills that had been modelled successfully, in a way that had inspired students to incorporate these attributes and skills into their own professional practice.

Of the examples of modelling that the students listed, none of those that I have classed as professional attributes were planned intentionally to be modelled. Maybe the students noticed these attributes as a result of their reflective analysis of what they were observing during the session and relating that to the impact that it would have on how they were teaching in school. The students may have in mind that these are part of the standards that they are assessed against for becoming a qualified teacher (TDA, 2007). The professional skills identified by the students were deliberately planned and explicitly modelled in the professional learning course e.g. use of voice and body language was modelled by a specialist coach. Several different ways of organizing group work and discussions were employed as teaching methods in the generic sessions. Each session included at least one starter and plenary activity. One session included an opportunity for peer assessment of their work and to suggest feedback to each other, for improvement. In each case the strategies used were discussed in relation to their practice in schools. One of the group work sessions was linked with discussion of social constructivism. This correlates well with the conceptual framework that Lunenberg et al., (2007) used to analyse their observations of teacher educators with respect to modelling and new views of learning. Most of the skills recorded by the students were modelled several times, at least one time explicitly discussing the strategy with the students.

Another invaluable source of feedback regarding the effectiveness of modelling has been from colleagues through team teaching, peer observations and joint planning. These opportunities have helped to clarify the pedagogical thinking embedded in sessions and have been supportive to me emotionally and personally in my professional development (Schuck *et al.* 2008).

Listening to students experiences of my teaching - informal feedback

The questionnaires used to evaluate the programme were too late for me to respond to students’ comments effectively, so I introduced an opportunity to collect some of their feedback mid-course, so that I could capture it and use it to analyse my own practice, and whether I was achieving what I set out to do.

This type of feedback was utilised intermittently, to aid in mid-course adjustments. Russell (2007, p.182) takes this further when he states ‘creating and sustaining a teaching-learning relationship with each student is now the fundamental goal from which all else follows’. He used ‘tickets out of class’ (Russell, 2007, p. 184) in a similar way to my mid-course written feedback, whilst Graham (Graham, 2008) used paper aeroplanes in her lecture on creative teaching, to collect written comments on how she had modelled creative teaching. Further to this, face to face or on-line discussions with students following sessions produced direct feedback and gave opportunities to make my thinking explicit to individuals, focus groups or to the whole cohort of students. Using a variety of feedback strategies helped to develop communication within the learning community. McKeon & Harrison (2010) study of beginner teacher educators showed that they also

increasingly became student-focussed in approach, welcoming feedback from their students. Similarly, in McClanahan's self-study (2008) she found that as a teacher educator, she could not assume anything about student understanding, that there was a need to ask questions and to be prepared to adjust practice accordingly. By asking for feedback about what students' are learning, I found that a window into their thinking is opened, which can reveal encouragements and concerns for me, and misconceptions that need to be revisited.

Whilst obtaining feedback regarding the students' experience of my teaching was beneficial, there are a number of drawbacks to consider. Students may not like repeatedly sharing their experiences (Martin, 2007), so this strategy needs to be used sparingly to be effective. Feedback needs to be trustworthy, to be worthwhile. Smith & Welicker-Pollak (2008) expressed a concern that teacher educators were not sure that students took quantitative feedback seriously enough. Quantitative feedback is convenient to collate, but much less informative than comments made by students. Informal comments that are from named individuals are the most valuable, as they can lead to an ongoing dialogue. There are also problems when feedback is used for a conflicting range of purposes, including performance management of teacher educators.

Valuing students and a range of teaching methods

Not all students receive interactive sessions readily, so it is important to value that everyone has different ways of learning, and one is not more right than another. In order to be inclusive, it is important that each student is valued, and they are able to voice their experiences and opinions. Students differing responses to interactive sessions may be due to the different abilities and mental skills (or multiple intelligences) of the individuals involved (Gardner, 1996). Gardner (1996) stresses the need to employ a variety of approaches to a problem, so that learners can be supported in learning concepts that do not fit readily into their repertoire of 'intelligences'. Traditionally, in our society we have largely restricted our approaches to using logical and linguistic skills. The use of interactive teaching strategies can extend this range to include kinaesthetic and interpersonal skills, amongst others. This can help learners to develop ways of learning that are not their preferred style, and for them to have appreciation of some of the difficulties that their own preferred teaching strategies may have on their learners. Different teaching methods suit different purposes, and there are times when a traditional lecture is more appropriate to transmit information than an interactive workshop. Students can be encouraged to consider 'fitness for purpose' of different strategies, so that they develop critical thinking regarding their practice.

Sometimes enacting a new practice may push students outside of their 'comfort zones', and lead them to feel insecure. This is because students can be challenged more than when they are just listening to a description of a new practice (Russell, 2007). Such an experience may lead to negative feedback unless students are appropriately supported. Support may be through identifying with students feelings, allowing activities to be voluntary or grouping students together with supportive colleagues. Such strategies are equally appropriate in the classroom, and again can be made explicit. In one of my sessions a student expressed a fear of being involved in presenting feedback from her group to the whole roomful of students. It was possible to help her to be involved in group feedback at the end of the session, by placing her in a supportive group. A class discussion thread on the virtual learning environment was then a useful tool for making this experience explicit, so that other students could consider how they would handle a pupil who was reluctant to participate in group work.

The introduction of written reflection at the end of the professional learning course sessions helped students develop into reflective teachers. Student teachers may find it difficult to reflect, and their reflection may be shallow and contain misunderstandings. Atkinson (2003) suggests that being explicit may work against them being intuitive, and that over-analysis and evaluation may get in the way of fluency in action.

However there is a balance required here between reason and intuition, times when parts of the professional practice are dissected for critical thought and times when problems are not consciously being worked on (Claxton, 2003).

By modelling good practice, I seek to inspire students to develop into effective teachers themselves. Barnett (2007) argues that in uncertain times we need a pedagogy of inspiration, but admits there are limits to being able to understand what this is, as there are no set rules. In trying to capture what this might be, he includes the lecturers' enthusiasm for the subject, care for the students and determination to communicate effectively. The problem with 'a pedagogy of inspiration' is the difficulty of being able to make explicit to students a skill that they can develop, when it cannot be clearly defined and might actually be partly a personality trait in the teacher educator.

Personal and professional development

I have reflected on my practice in the light of discussions with more experienced practitioners, watching two of these practitioners in action on Teachers' TV, and reviewing relevant literature. I chose my first Masters assignment to support my development of subject and professional knowledge as a new teacher educator coming from many years of experience as a school teacher, to help me re-define my professional identity. I reflected on how I learnt at school and the sort of school teacher that I was, my 'retrospective identity' and then the sort of teacher educator that I aspired to be, my 'prospective identity' (Swennen et al., 2008). This analysis of my pedagogy as a school teacher helped me to articulate my own practice and relate it to educational theory. Other beginning teacher educators have found learning conversations with key colleagues and learning at Masters' level facilitated their professional learning (Boyd & Harris, 2010; Harrison & McKeon, 2008). My professional identity is developing through the experiences I am living, through reflecting on these experiences myself and through talking about them with others, this is social constructivism in action (Swennen et al, 2008, 2010).

I have found the process of revealing the thinking behind how a session is taught to be demanding. It requires rigorous analysis of my own thinking, as both the content and the delivery process are important. Additionally, being open to ongoing feedback and professional dialogue with students about their perception of sessions put me further into the spotlight when I wanted only to focus on facilitating their learning. I think explicit modelling of good practice is a good ideal to have, but in reality it is difficult to live up to. In the end, the imperative may be that the students know that the teacher educator genuinely cares about the teaching and their learning (Martin, 2007). There is also a conflict between whether to be explicit or not, as learners can become confused if they are not ready for this amount of information. It can also risk undermining their confidence in the teacher educator, if not handled in the context of an ongoing relationship (Berry & Loughran, 2002). I felt I was at risk of students' responses undermining my own self-confidence at this early stage of my career, underlining the need of a supportive community of practice for new teacher educators (Williams & Ritter, 2010). When I first encountered some studies specifically focused on the professional development of new teacher educators I felt very encouraged to find that others in my situation were going through similar feelings of vulnerability (Murray & Male, 2005; Loughran & Berry, 2005; Lunenberg et al., 2007; Clemans et al., 2010; Williams & Ritter, 2010). This is evidence of one way that the self-study literature supports the wider community of practice of teacher educators, which could be utilised in the induction of new teacher educators.

In a study of five beginner teacher educators, McKeon & Harrison (2010) have found that initially they were aware of the importance of modelling, but in their second and third year they were using strategies to make their modelling more explicit in order to develop their students' learning. This reflects the same

pattern as my personal experience. Through the process of enquiring into the effectiveness of modelling, I have a better perceptual framework of my own teaching and have been able to implement strategies to make my thinking more explicit. This has the benefit of inspiring the students to implement interactive teaching strategies, and has helped them to develop an ability to reflectively analyse different aspects of their professional practice. Students are learning to articulate how they are learning, and relate this to learning theories. It also appears that there has been a large increase in the effectiveness in the professional learning course through the introduction of modelling that has been made explicit to students. Not only did the students learn effectively themselves, they are incorporating effective learning strategies in their own classrooms, in a way that has been deliberately thought through.

Initially I found self-study a demanding and uncomfortable process, a feeling echoed by Anderson-Patton (Bass et al., 2002) but the benefits to my personal growth, my professional development and my students learning has made it a worthwhile discipline. Having felt a degree of isolation as a classroom teacher, I now feel liberated to learn and develop further, and I concur with the findings of Allender (Bass et al., 2002) that 'we can grow as we continuously learn to teach'. In many ways my classroom is a crucible of learning about teaching for me and my students (Loughran, 2006). Schon suggests that there are different sources of satisfaction and demands for competence when moving from the role of expert to reflective practitioner (Schon, 2003, p.300). As an 'expert' there is pressure on me to be perfect, but as a 'reflective practitioner' my uncertainties may be a source of learning for me and for my students. This puts more responsibility on the students to develop as independent learners and to be more involved in constructing their own understanding with my facilitation.

Future plans to extend modelling and feedback.

Much of the professional knowledge of experienced teachers is not articulated to students when they are observing in the classroom. Some of this implicit knowledge needs to be made explicit to those who are training, so that they can share in a common understanding and awareness about good practice. This can happen for students whilst working in school, which is an example of situated learning in a community of practice (Lave & Wenger, 1991; Johnson, 2003). In future it would be good to develop the practice of new teacher mentors, when discussing a lesson that a student has observed, to encourage them to be more explicit about their own thought processes. Additionally, through modelling good practice and making this explicit in the professional learning course, it is possible to complement the observations and experiences that students are having in school, and to make them a topic for analysis. Explicit modelling helps to integrate theory and practice, to help students embed their learning and critique their own practice. However, on reflection about my own practice, in future I will be more pro-active in making the links between educational theory and practice explicit too (Lunenberg et al., 2007), as this would be a natural development for me.

I have reflected on how I have been developing a dialogue with my students about how they learn, so they can experience the effects of my teaching strategies and understand why I am using them. They can then make informed decisions about using these strategies in their own teaching. In future I plan to encourage my students to make some of their own thinking explicit to their pupils, so that pupils become more aware of how they learn, as this is increasingly a focus in school, towards developing independent learners. I also want to encourage my students to receive feedback from their own pupils that can help them focus more fully on pupils' learning.

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