DOCUMENT RESUME

ABSTRACT
        This paper explores the concept of reflection and
reflective practice in teacher education. Teaching is a complex
achievement that brings together a number of conceptual, practical,
and physical resources in an individual's professional practice.
Achievement in teaching is an amalgam of at least four different
discourses--science, craft, art, and social/moral activity; success
and development in teaching depend on forms of reflection specific to
those discourses. To illustrate this conceptual approach, the TENET
project, an attempt in preservice training to develop reflection on
the promotion of equality of opportunity in the classroom is
described. The paper concludes with five principles for teacher
education: (1) give students tasks that require them to reflect on
important findings of educational research, assess the quality of
evidence offered for claims concerning education, and understand how
to gain and use evidence about their own and others' practice; (2)
let students become apprentices to experienced teachers, and practice
their craft with appropriate feedback and reflection built into the
experience; (3) facilitate the appreciation of personal style in
teaching, provide help to develop a language of critical
appreciation, and give students opportunities to compare their
approach with that of their peers and experienced teachers; (4)
ensure that radical moral reflection is legitimated explicitly and
structurally, facilitate peer discussion of moral issues, and provide
opportunities for cognitive, experiential, affective, and practical
exploration of moral issues; and (5) provide explicit, well informed,
strongly argued views of the moral responsibilities of teachers.
(Contains 28 references.) (ND)

Teaching as an Amalgam of Discourses and the Consequent Need for Appropriate Modes of Reflection

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The main points we make are firstly that teaching is a complex achievement that brings together a number of conceptual, practical and physical resources in an individual's professional practice; secondly that the achievement is an amalgam of at least four different discourses namely those of science, craft, art and social/moral activity; thirdly that success and development in teaching depends on forms of reflection specific to those discourses since each has a distinct social practice from which 'reflection', 'professional development' and 'personal development' take their meaning. The paper argues the case for analysing teaching and teacher's thinking in relation to each of the discourses of science, craft, art and social/moral activity., characterising these in relation to reflection. To illustrate this conceptual approach the paper considers an attempt in a pre-service course of training to develop reflection on the promotion of equality of opportunity in the classroom. Finally some principles are derived for the design of teacher education programmes which aim to foster a balance of forms of reflection.

TEACHING AS AN AMALGAM OF DISCOURSES AND THE CONSEQUENT NEED FOR APPROPRIATE MODES OF REFLECTION

Introduction

The concept of reflection has been widely adopted by teacher educators and has generated a variety of practices and a wealth of literature, commonly citing the work of Schon (1983;1987) or Dewey (1933) as the inspiration. It is perhaps the most common term used to characterise programmes of teacher education in the last ten years, and the label has often been retained despite the political pressures to focus on competences and deliver prescribed curricula (eg as noted in commenting on their survey of courses in England by Barton et al, 1994, pp538-9). The varied, sometimes loose, use of the terms reflection and reflective practice has led many to point out the need for specification of the senses in which they are being applied in various programmes of teacher education (Calderhead, 1989; Smith, 1991; Zeichner, 1987). There is some concern that they may simply have become slogans and it has been argued that they have been appropriated from origins in critical, liberatory dialogue to serve technicist, managerial approaches to education (Gilbert, 1994), or even to assist in control by the state (Smyth, 1991).

It is however worth retaining and arguing for the concepts of reflection and reflective practice in teacher education. Teaching which is routine and unthinking sells pupils and teachers short; learning to teach and sustaining professional development require reflection which is closely linked to action. For us, reflective teaching involves the fruitful combination of thinking and action and includes judgements concerning the propriety of ends and means. It requires personal commitment and a critical awareness of the wider context in which schooling takes place. It is with these general principles in mind that we seek to elaborate the concepts of reflection and teaching.

The complex achievement of teaching

Much work within the 'teacher thinking' tradition has contributed to a proper appreciation of teaching as a complex achievement. Schon (1983) made more clear the special qualities of professional practice that subtly and effectively combined past experience and processes of thought in action into a kind of artistry or highly refined craft. The analysis of different aspects of teaching in the subsequent literature on reflection and teacher thinking, suggests a fragmented picture of what teaching is, one where contradictory characterisations vie with one another (Zeichner, 1994). We argue that teaching is best analysed as a personal and social achievement. That achievement

should be understood as an amalgam of discourses. This we suggest provides a unifying approach within the tradition and clarifies th. concept of reflection.

Teaching, self and social action

We believe it is helpful to look at teaching not simply as a means to an end but as something that daily we either feel good or bad about. We strive to make it a dignified survival, a satisfactory accomplishment and to act with integrity. Teaching is a complex personal activity which encompasses the professional. A teacher seeks to hold professional, personal and social ingredients in balance and the performance must be maintained over time and in different contexts. This is a hard won achievement in which individual personality is an inescapable ingredient. Every aspect of teaching is affected by the personal, in the way we are with children, in the values that inform the many decisions of day to day classroom interaction, in our conception of learning and in our responses to whole school decisions or government policy making.

Recent critiques have taught us to be cautious about our use of the concept of the 'self' (Bordo and Moussa, 1993). How our selves are constructed and the relation of individual agency to social determination are crucial questions in understanding the nature of reflection. Our way of thinking, feeling and behaving is radically affected by the material and ideological context in which we find ourselves. The categories of thought themselves - concepts, schema, the language with which we structure our experience - are given and form the materials with which we fashion our personality. Feeling as well as intellect is integrally involved. Cognitive cannot easily be separated from emotional apprehension. Our feelings inform our ways of behaving. Our world view is radically affected by the power relations of society because they influence the materials and tools with which we achieve our understanding.

This would be a profoundly deterministic account were it not for the fact that inherent contradictions and spontaneous resistances give rise to counter proposals in practice and theory. Each individual fights this fight but individual struggles are also taken up in political, cultural and academic arenas. A good example is the achievements of the women's movement, the proposals for different ways of working in institutions and scholarly disciplines, the progress in redrawing the conceptual and emotional boundaries of many aspects of our lives. Arising as it does from the shared but diverse experiences of oppression of individual women this work has provided us with alternative ways of feeling, thinking and behaving.

We do not all start from the same place. We are each located in the matrix of power relations whose variables are the stratifying instruments of societies such as class, 'race' and gender. However we can come as individuals to a critical understanding of the characteristics of that inheritance and of alternatives and so become free to depart from the boundaries we inherit. An aim that education may serve is to enable people to become such transformative individuals in Giroux's sense (Giroux 1989). We are each in a process of negotiation and struggle with what limits us or makes our life more difficult and we continually assess our own unique interests. We each have a working world view and it is constructed in the process of our negotiations with 'life'.

Although we view the basis of action as perceived interest this is not an exclusively rational calculation concerning means and ends. Self-interest is articulated, acknowledged and perceived affectively as well as cognitively. Self-interest includes the interests of others and it is defined in relation to others, using common 'texts'. It is not only recognised, it is felt and ultimately embodied in the pattern of choices made and it is expressed through symbolic as well as discursive forms.

> This is why traces of believing course through every text drawn from teaching. They are traces of the teacher's investment of self - a self full of conflicted values and dispositions, one that is gendered and historically conditioned and laden with ideologies professed and unprofessed (McDonald, 1992, p26)

Within the constraints of a particular personal and professional context teachers construct their personal and professional selves by drawing distinctions and create a pattern of choices.

Teachers are not an homogenous group. They are older, younger, women, men, black, white, from rich or poor backgrounds. They are parents or childless, single or partnered. Our experience of these distinctions affects and is affected by distinctions resulting from the vertical and horizontal segmentation of the profession. In England for example teachers are horizontally segmented into primary, secondary, further, higher, generalist or specialist and vertically segmented as class teachers, year leaders, heads of departments, vice principals and principals. Our position within these personal and structural distinctions deeply influences our professional identity.

This emphasis on the socially constructed self in teaching and the process by which a teacher achieves her way of working has a number of implications. It explains in part why any professional practice, including that of teaching, is so difficult to change either through policy making or the impact of research findings. To the researcher who has invested a great deal of time in her conclusions they present a formidable argument. To

the practitioner's hard won balance; it is at best a tiny impact or at worst a threat to equilibrium requiring a wholesale re-evaluation. This is conveyed by Louden (1991, p194) who argues from his analysis of a case study with one teacher

> that the tacit, context-specific and biographically embedded nature of the teacher's personal understanding of teaching and the power of tradition shape and limit her capacity to change her teaching.

Even when the researchers are themselves the teachers or student teachers a gap between espoused theory and the evidence of observations can be too destabilising to close, and the resolution might be to discard or shelve the evidence or even to choose not to teach. Examples of the discomfort such a gap may produce have been noted in projects where teachers have had to confront evidence that conflicted with their assumption they were promoting discovery by their pupils, such as the Ford Teaching Project (Elliot and Adelman, 1976). Change in teaching practice (and change is here synonymous with the process of continuing professional development) has to be in some sense a change of the self that the teacher has constructed.

Teaching as an amalgam of discourses

We need a means of describing and analysing teaching that does justice to its holistic and personal nature and provides a basis for a pedagogy of teacher education. Teaching is an integrated performance of individual teachers but that integration has been achieved within the social context. It involves the use of social resources available in the form of discourses relevant to teaching. We use discourse to mean the use of a shared language and a set of practices. It is a resource which provides characteristic ways of describing, making judgements and dealing with dilemmas or problems. Both the language and practices embody the history and power relations of the discourse. It is a feature of all discourses that they structure the field by defining oppositions within it. These offer individuals opportunities for making choices. They provide resources for construction and provide a means of description and analysis.

Teaching can usefully be described as an amalgam of different kinds of activity. It is at one and the same time:

- a practice informed by scientifically grounded knowledge and processes available as a resource to the individual practitioner
- a planned action aimed at achieving a predetermined end whose success is dependent on responsiveness to contextual factors and the exercise of craft skills

- a personal performance dependent and uniquely determined by the personal qualities and values of the individual teacher and by the ways the individual represents practice to herself
- a moral act intrinsically concerned with the development of particular individuals and the health of the community in general.

Learning to teach includes learning to do and think about each of these activities, and to amalgamate them into one's own performance as a teacher. The elements of this amalgam can, we suggest, be described in terms of the discourses appropriate to science, craft, art and moral activity.

Teaching as a science

Starting with the conception of teaching as a science may seem provocative in a discussion of reflective practice since the analysis of teacher thinking and professional knowledge has moved well away from the simplistic and scientistic dream that a scientific basis for teaching could be found and used to predict behaviour and to reform schools. The description of teaching as a science suggests a body of knowledge which can be accumulated, validated and applied so that teaching can become more predictable and effective. A scientistic approach may reflect an impatience with messy, uncertain or undertheorised practice. Schon (1983) explicitly rejected this position and the safety of the "high ground", as many teachers do, because of the uniqueness of each teaching situation or because the knowledge gained from the perspective of the high ground seems remote and inapplicable. Classroom teaching does not usually feel like the appliance of science.

However during their training and careers teachers need at times to engage with the language and practices of science in two senses. Firstly, teaching is a practice that can be informed by a body of scientifically grounded knowledge available as a resource to the individual practitioner who will also have to examine critically claims by others that particular research findings should inform classroom practice. Advocates of the application of scientific findings would argue that they can help teachers to make more informed judgements and indeed that the teacher has a duty to use the best available knowledge.

Secondly teaching can also be regarded as scientific if it uses procedures which are associated with the activity of scientists. A lesson can be experimental in the general sense that it tests out a plan, and more specifically in three senses distinguished by Schon (1987): as an exploratory activity to see what happens when some action is tried

out; to test teaching strategies to find out whether they produce the anticipated results, which Schon termed "move testing"; and in more systematic investigation of hypotheses (which might be part of some planned action-research). The experimenting may be conducted as teachers plan and rehearse different approaches to teaching sequences; this process has parallels in Schon's account of experimenting in 'virtual worlds" and also in the thought experiments (gedanken) of physics.

When teaching uses the language and practices of a scientific community it is often more like Baconian *experientia* than Popperian refutation or more recent representations of what scientists do (Chalmers, 1982; Medawar, 1982). Critiques of the relevance of scientific discourse to the practice of teaching may be based on positivist views of science rather than alternative philosophies of scientific method and the sociology of scientific activity which indicate not only what science can do but also its limits. Teachers are subject to the inductive paradox, assuming that if an approach to explaining or representing subject matter or to motivating pupils works out a few times it will succeed next time; the exception is often round the corner.

The reflective teacher will not see this as disproving their hypothesis but as possible evidence of other variables influencing events. The search is not for generalisation but for transferability and a richer understanding of the situation and for ways in which their own experiments and evidence from the experiments of others can illuminate the next similar situation to inform a practical judgement. In the sense that this scientific process looks to why things happen it is distinguishable from craft which focuses on making things work.

So teachers might employ the procedures as well as the fruits of scientific work. To prepare student teachers for both roles they need to be introduced to the rules and language of the science being employed - eg through critical analysis of some products and methods of research, and the relationship they may bear to practice, by doing and sharing investigations and by being helped to test their own assumptions and accept the evidence. A healthy caution about the authority of science and the existence of a scientific method should not slide into the cynical rejection of the evidence of research (in all its forms) and of the need to test rigorously, seek empirical evidence and be prepared to adjust one's practice if the evidence does not fit.

Teaching as a craft

The term 'craft' may be used pejoratively by some to imply a limited notion of teaching, as a set of skills which can be acquired by apprenticeship without associated intellectual activity, scholarship or consideration of a theoretical basis: "Skill without imagination is craftsmanship and gives us many useful objects such as wickerwork picnic baskets." (from a character in Tom Stoppard's play *Artist Descending the Stairs*). Others may have more positive associations in mind when they characterise teaching as a craft because this conveys the polished and thoughtful performance of expert teachers who continue to extend their craft.

Much of the teacher thinking tradition has been concerned with an illumination of the craft of teaching. This has been a great service to the understanding of the practice of teaching and has properly raised its status. The pioneering work of Schon and others after him have made us aware of the fine pre-judgements about contextual factors and the continual monitoring and thinking in action.

A distinguishing characteristic of this discourse is that the ends are not necessarily determined by the practitioner. For example the aims of teaching are largely determined by the system and the craft consists in selecting and adjusting means to work towards these aims. This involves interacting creatively with people and things, exhibiting and polishing skills, shaping as well as responding to the environment. There is often a need to balance the conflicting demands of several aims. Craftsmen and craftswomen act in response to a practical need which is often set with no reference to their personal agenda. As such it is distinguishable from the art of teaching as we will define it. Reflection on the ultimate value of the ends is not essential to the practice of craft except in so far as practitioners they consider the feasibility of achieving them; this also distinguishes it from the moral aspect of teaching.

Learning from others; accumulation of experience; continual refinement of materials and methods; a development of the ability to judge what is achievable in different contexts by whom, when and where - these form the basic contents of reflection with this discourse. The language and practices are acquired by student teachers who are socialised into the way of acting and thinking through induction into a community of teachers, accepting the situation as it is and learning how to see teaching situations and shape them. Taking pride in their work and seeking to extend their craft novices become more expert through action and thought which are intimately connected. Their concept of themselves may be challenged as they seek to exercise the craft and find the 'materials' intractable or their own skills limited. The performance of craft skills affects

the self-concept and the judgements others make of a student or teacher is often based largely upon the performance of these.

Tutoring and mentoring of student teachers therefore requires personal support for students and help to reflect on their development as people as well as a skilled practitioner. This may assist them to move from reflection upon specific aspects of their practice to focus upon the uniqueness of their practice as a whole, as described by Clarke (1994). In so doing they begin to develop their art as teachers. The priorities of teachers in training and early in their career may well encourage a focus on this aspect, and external pressures on teacher education reinforce this. We recognise this but do not accept a hierarchical view in which more critical and fundamental reflection is deferred entirely to a later stage when coping with craft skills no longer occupies all the teachers' thoughts.

Things are not of course so neatly distinguishable. Teachers are bound to respond to a number of sometimes conflicting demands. In the British context these include the national curriculum, the headteacher, the school culture, parents, children and their own aims. A teacher can be craft oriented to the aims set by all and each of these and the process of clarifying and making choices between the variety of instructions is a 'space' in which the teacher is to some extent empowered and can find a voice. In the practical necessity to exercise this choice the art and morality of teaching (intimately connected in our characterisation) are also to be found.

Teaching as art

Teachers develop their practice by representing to themselves their preferences. McDonald (1992) conveys this vividly in his acount of making sense of himself as a teacher. He describes how the experience of a particular lesson, in which he read at length from a story by Capote, came to have significance for him.

> . . . the taste of this lesson lingers with me still. It is the taste of a failed relation. I was swept up by the power of my teaching past the bounds of my ordinary judgement, defended the teaching to myself despite my own clear sense of its faults, felt compelled to write out that long sequence of moments that nearly made me weep, and in the process nearly wept again. . . . In the end doubts about this lesson are what I remember most. The result is that mv memory of the incident has become an exemplar, a constituent element of my practical judgement as a teacher. (p26)

What is important about this account is the way meaning is created. In terms of the distinctions elaborated by Nelson Goodman (1976) McDonald uses exemplification and metaphorical exemplification; the incident has become a means of discrimination

through a variety of kinds of denotation and expression. These forms of reference are characteristic of artistic discourse as is the inextricable combination of feeling and understanding.

We all use these ways of meaning in our everyday lives to make sense of our experiences. The meanings we create share characteristics with artworks. They are often deeply 'personal', they resist analysis, are 'immediately' felt or understood and are often invested with considerable emotion. We feel that they convey fundamental 'truths' or 'rightness' or, when used to label negatively, that they are deeply uncongenial. Values and artistic forms of reference are deeply connected since rightness on this account is defined as immediately perceived value.

A strong element in the discourse of art is the idea of self-expression. This view of art has its roots in the romantic tradition of western Europe. While we want to define art more inclusively than this and to adopt caution in characterising the 'self' we do want in the context of teaching to celebrate the idea of the individual practitioner expressing themselves. Teaching is a personal performance crucially dependent and uniquely determined by the qualities, style and values of the individual teacher. Our personality is a vital part of the teaching process. As such it offers both constraints and opportunities. How we choose to mitigate the one and exploit the other influences our teaching style. Our way of interacting with others - warm or reserved, manipulative or direct, with a controlling humour or an empowering respect - affects how we achieve our educational aims.

In making the many choices that have to be made in the development of our practice we create a pattern of personal meaning . In so doing we call upon aspects of the contemplative as described by Buchmann (1990), create our style, and find our voice. The appropriate response to this 'art' of teaching - to the values embodied in practice, to the personal meanings expressed through the minutiae of classroom life - is critical appreciation of the whole. A good example of this is Eisner's accounts of educational connoisseurship (Eisner, 1979).

The above argument implies that 'taste' is an inescapable and legitimate aspect of teaching. Bourdieu provides ways of understanding how tastes are shaped by our conditions of life and expressed in our pattern of choices (Bourdieu, 1984; Bourdieu and Wacquant, 1992). Taste is always an affirmation of a value important for our way of living. Our taste in teaching is the expression of ourselves and at one and the same time an affirmation of those values that we hold most dear.

We learn to become an artist, to develop a mature 'style' and refine our taste, by coming to know what we want to affirm. We do this by locating ourselves negatively or positively to others' vision or style and, like McDonald, to our own practice. 'Am I more like this or more like that?', 'Should I, can I be like that or this?' 'I never want to be like that again!' 'I want to be like her in this respect but not that respect'. The practices of criticism, appreciation and connoisseurship are ways of clarifying that vision. Appreciation needs to be subtle, perceptive, aware of the practice in context, aware of the meaning and significance of what is seen. The values affirmed are not known prior to appreciation. It is in the nature of art that in the process of creation and appreciation we become aware of what we want to affirm. The growth to a maturity of practice is a matter of refining that vision by continually enhancing the rightness and reducing the wrongness of our performance. We represent 'rightness' and 'wrongness' ever more complexly and completely to ourselves as we develop our abilities as critics and connoisseurs of our own and others' practice.

Teaching as a moral act

Teaching in democratic societies is a social act explicitly committed to the development of individuals and the health of the community in general. As such it is a moral activity in which teachers engage as citizens and for which they are accountable on moral grounds. Teaching is properly characterised as moral in at least four ways.

Firstly, in the responsibility to evaluate critically what we are asked to do by others. Much of what goes on in schools is determined by others. This does not absolve us from deciding on the moral propriety of these instructions. We have a responsibility continually to reflect on the moral rightness of what we are being asked to do. Our personal identity and values are implicated in, possibly compromised or even threatened by, these external requirements.

Secondly, there are the practices that more insidiously become part of our teaching as a result of institutional cultures and structural requirements. An extensive literature analyses these hidden or implicit practices. Critically evaluating the school's 'common sense' necessarily involves moral judgements.

Thirdly, despite the increasing external influences much choice is exercised in the classroom and those choices will have moral dimensions. We each create an atmosphere in our classrooms unique to ourselves. We create the 'right feel' by the rules of behaviour we implicitly or implicitly set down, by the way we set these down, the way we deal with disputes, the prioritisations we make that are implicit in the

myriad of instant decisions and of which pupils are intensely aware. In doing these things our professional and personal values are continuously at work. One teacher will prioritise learning, another behaviour. One teacher will stress examination passes, another understanding and intrinsic enjoyment. One will emphasise unthinking conformity to the rules and customs of a community while another will attempt to develop participation in the process of democratic decision making. But citing such examples oversimplifies the process. In fact it is almost impossible to disentangle the warp and weft of the fabric of classroom life because it comes from and expresses our moral outlook.

Fourthly, what we have described as the art of teaching is closely connected with the moral dimension. Both have t: same well spring of personal values, namely the unique accommodation we achieve to the effects of our location within the power structures of society, and both are affirmations of values.

The function of reflection on the moral dimension of teaching would vary with each of the four aspects just described. In relation to the first it would be to properly evaluate instructions, from whatever source, with reference to the best interests of the children in our care and the purposes of education in general. This is vital for the healthy operation of the political, social and educational community. It also serves to clarify our own values.

In relation to the second aspect reflection would serve to keep in mind the tension between institutional needs and children's needs. The teacher is involved as part of the institution and as a person directly responsible for her children's best interests. Institutional influence can be good or bad; reflection can lead to enhancement of the positive and mitigation of the negative.

In relation to the third and fourth aspects reflection should acknowledge our predilections at work in our practice, so we can examine the values embodied in our actions alongside those we espouse. Both might be modified in the process.

Having spent time establishing these descriptive categories we now turn to our own practice as teacher educators. In doing so we hope to illustrate aspects of the discourses and to provide a history for the principles of course design suggested at the end of the paper.

Lessons from practice - a curriculum development initiative

Involvement in the TENET project funded by the European Commission gave us time to evaluate our own practice much more fully than is usual. One of the authors of this paper was a co-director of the English contribution together with a colleague, Pam Boulton. The full account of the project is given in two reports (Coldron and Boulton, 1989; Boulton and Coldron, 1990) and two papers (Boulton, 1992; Coldron, 1991). For three years the ten members of the project developed and evaluated an action plan to integrate the theme of equality into the curriculum of our student-teachers. The terms of the funding meant that in reporting there was an emphasis on gender but we actually spent equal amounts of time with our students on gender, 'race', class and disability as sites of inequality. It was therefore an initiative to enhance aspects of the moral dimension of teaching.

The initial target groups for the project were the students of the Post Graduate Certificate of Education (PGCE) course. The PGCE lasts only one year. It trains graduate students to teach in either Primary (ages 5-11) or Secondary (11-16) schools. We evaluated work with two cohorts, of about 150 students, the first during Phase One in 1988/89 and the second during Phase Two in 1989/90. The first phase was evaluated by an anonymous questionnaire to all students and interviews with14% of the cohort. For the second phase the project team was enlarged and involved subject studies tutors from Design and Technology, English, Mathematics and Science. An external evaluator was appointed. Formative evaluation of this phase came from team meetings and from the visits of the external evaluator. A summative evaluation was made. The whole cohort provided group evaluations, and there were in depth interviews with 21 of the 151 students.

Our personal, professional and intellectual backgrounds led us to believe that it is a teacher's dual duty positively to counteract the social disadvantages visited on pupils as well as striving not to reinforce them, but we had seen these issues were often marginalised in schools and in teacher education. A priority of the project was to legitimate promotion of equality as a prime professional concern. Before the project the issue was chiefly addressed across the course as and when necessary. In practice it was at best patchy and at worst non-existent. We wanted to raise the profile of the theme for both students and colleagues and to have a positive effect on students' behaviour in the classoom.

The aim of the first phase was to get in place a number of small but strategically significant changes. Teaching sessions focussing only on equality were timetabled and

deliberately placed throughout the course. The need to address the theme of equality was made an inescapable part of two out of the three compulsory assignments. The ability to promote equality in the classroom was also added to the criteria against which practical teaching was assessed. Finally the principle of permeation, raising the issue as and when necessary, continued. This bolstering of low key permeation with a high profile in both the taught course and school experience we called focussed permeation.

We also believed that a lasting change in classroom practice was in some way dependent on a change in attitude. Our students were all over twenty-one and the average age was twenty-eight. They came from many different backgrounds and brought with them many different values and attitudes. B ng mature they were relatively secure in their view of themselves, their basic values and the way they understood the world. This was often backed up by years of experience in employment. Many had raised a family. They possessed a hard won sense of self. They had a view of the world which was the moral foundation for their behaviour. Most of our students had a willingnes to learn. Whilst this led some to demand only a narrow relevance to the task of surviving in the classroom (an over emphasis on craft), most wanted also to consider evidence of the wider influences on their professional practice and on their pupils. They were keen to develop ideas which might have a greater value for their long term development as teachers. In terms of attitudes to gender some, both women and men, found the patriarchal status quo unacceptable. Others, again both sexes, were uncomfortable with the sexism they saw in themselves and around them. A significant proportion had acquired understanding of the theme of 'equality' through their work or their studies.

We knew from our evaluations and interviews at the end of the first phase that a very small minority of our students were unapologetically sexist and racist, a further number unknowingly so. In the first phase of the project a student who had been accused by other students of offensive behaviour towards women and black students was being interviewed as part of the evaluation and said:

> *People are entitled to their own opinions. I don't think you are in a position to tell people how they should think. For example, I'm sure someone could be a very good teacher, a very capable teacher, even if they were utterly racist ... as long as they didn't take it in to the classroom with them.*

For us this was a disturbing statement. It aggressively and effectively evoked the themes of personal liberty and indoctrination against us. Further it made the implicit claim that it was possible for there to be a proper and radical distinction between the professional and the personal, that what you were like as a person need have no effect

on your quality as a teacher. It further implied that teaching is only a matter of executing a craft and teachers can adhere to values in the classroom which they abhor and reject in every other context. This highlighted for us assumptions at the heart of our practice. We were convinced that were a student to attempt to maintain such a radical difference between professional and personal values it would prove impossible. Once away from course monitoring and in the more cynical atmosphere of the workplace the personal would prevail (Kelly 1985).

A majority of the students accepted the dual duty described above. Approximately a quarter of the students evaluated in the first phase gave the impression that their commitment was extremely robust and would form a foundation for their practice.

> *The course focussed my ideas and gave me some practical ways of combatting it...It used to be afterwards I thought, 'Have I fitted this in?' It comes first now...It's always there.*

Of the remaining three quarters a third either reflected back our own rhetoric or revealed only a superficial understanding and response. When asked to give examples of the kind of actions they would take to enhance equality of opportunity in their classroom (a question of craft), those offered were often only cosmetic such as not distinguishing boys and girls when lining up or on the register.

We concluded that the course in the first phase did not provide sufficient input for students to go beyond an awareness of the more obvious manifestations of sexism and would not lead to effective practice. Only a deeper and growing understanding would equip the students with confidence enough to maintain commitment and to be critically reflective in a way that would ensure development of practice. To set in motion that process of learning was the key to achieving the overall objective. We concluded there was a need for the development of materials and teaching strategies specifically designed to enrich students' understanding of the pervasive nature of the causes of systematic disadvantage and the role schools play in its reproduction. They also needed more opportunity explicitly to experiment with practical methods in the classroom. This was the focus of the second phase.

The educational task we set ourselves was therefore twofold. Firstly, to facilitate profound attitude change for a small number of students if they were to develop their own practice in terms of the promotion of equality. It seemed to us that, unless these students adopted a radically different understanding of the way things are and how they might be, then all advice and admonition about promoting equality in their classroom would be wasted. They might comply with the requirements of the course whilst being

assessed but when qualified they would soon revert to a different practice more in keeping with their personal values. Secondly, for the greater number of students, to enable them to develop a more sophisticated view in order to achieve a robustness of belief that would stand up to hostile criticism in the workplace and provide a sound basis for continuing development of this aspect of their own practice. Thirdly, to provide professional support in the form of a clear message of legitimacy for those students who were willing to stick their necks out with colleagues about this issue.

Evaluation of the second phase showed that we had made modest gains. We had raised the profile of the issue and taken some small but successful steps towards improving our practice. Feedback showed that the work done on the theme of equality in conjunction with subject application was perceived by the students to be highly relevant. They felt that it equipped them with practical ideas for implementation in the classroom but combined it with the more general considerations. Retrospectively one could say that craft, science and moral modes were integrated but that the dimension of art was not sufficiently acknowledged.

Students reported that they were often affected more by peers than by tutors (Boulton, 1992).

> I think being other students addressing the issue they were looking at it very much to meet our needs.

We would speculate that students became more aware of their own values and attitudes in relation to their peers. This is the educational effect of the need to articulate and justify one's own beliefs in dialogue with one's peers. Peer tutoring and discussion powerfully engages students in self-reflection and is something we have developed considerably since the project ended.

It was important to give a conceptual framework that placed equality in education in the larger context of society. Further, concepts of sexism and anti-sexism were enhanced by consideration of the other sites of inequality. The development of the theme of equality on the course encompassed 'race', class, and disability as well as gender.

> It links across...they're all groups that unless we make a positive effort to ensure that they do get equal opportunities, they won't...The course has actually brought all of those together in a wider equal opportunities context and I'm much more aware now of EO as a whole.

Tasks and projects to be carried out in schools were especially useful for helping students translate intentions into actions. We have tried since to ensure that we use

school experience in a variety of ways that explicitly seek to enhance each of the discourses of teaching identified earlier.

In summary a model that combined apprenticeship to experienced teachers with the exploration of personal and professional values was effective in encouraging reflection on practice. What we offered to our students was encouragement for each individual critically to assess their own world view in the light of their dual professional duty concerning equality in their classrooms and to try to translate this into good professional practice. In meeting this challenge they enhanced their ability to act as transformative individuals.

We are only too aware of the fundamental nature of the change that we were seeking to effect in some of our students. It is the kind of restructuring that occurs over many years. The process developed during the TENET project and continuing now is intended to facilitate that change by priming the critical process. We seek to enable students to confront unacknowledged contradictions between personal and professional values (as the student who so disturbed us had done), between rhetoric and practice and between themselves and their peers. This process will begin only when the contradictions are both comprehended and felt. Only these nagging dissonances will make possible a rigorous attempt to bring conflicting ideas, feelings, and values into better harmony. Reflection then is not just facilitated by personal virtue. It can only happen if it is a socially constructed possibility. To try to educate someone to be radically reflective in this case requires the educational space to be constructed so that no one can avoid taking up an explicit position in relation to it.

Such reflection cannot just be about education. The way in which society works contributes to the issue through the construction of self, through the structural arrangements of society and the power relations within which each individual teacher is located. To reflect in an effective way on education is likely to involve a radical review of many things beyond the classroom walls. Without a proper appreciation of the way in which we, the school and the children we teach are located in the web of socio-political relations reflection can only ever be skin deep.

Implications for course design

Having characterised the complex achievement of teaching as an amalgam in this way and looked at an example from practice what principles can we derive for the initial education of teachers? Our analysis and experience suggests that we need to:

- · give students tasks that require them to reflect on the implications of important findings of educational research, assess the quality of evidence offered for claims concerning education and understand how to gain and use evidence about their own and others' practice

- let students become apprentices to a number of experienced teachers, and practice their craft with appropriate feedback and reflection built into the experience

- facilitate the appreciation of personal style in teaching, provide help to develop a language of critical appreciation and give students opportunities to compare their approach with that of their peers and experienced teachers

- ensure that radical moral reflection is legitimated explicitly and structurally, facilitate peer discussion of moral issues against the background of this formal legitimation and provide opportunities for cognitive, experiential, affective and practical exploration of moral issues.

- provide explicit, well informed, strongly argued views of the moral reponsibilities of teachers that are mindful of academic integrity and that issue in statements of authoritative opinion and the creation of a professional culture which demands an equally well grounded and articulated response.

These ingredients of a programme for becoming a teacher need to be integrated and this requires support for the individual to construct their own professional self. Although we do not accept a hierarchical view of the different modes of reflection we do recognise that teachers will have different priorities at different stages of a career. Reflection however is not something to be left for further professional development (as implied by the national criteria recently imposed on initial teacher education in England). It is, from the beginning to the end of ones career, an essential process in the construction of oneself as a teacher.

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