Trainee Teachers' Experience of Reflection:

Personal and Social constructions of experience.

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Abstract

The research on which this thesis draws investigated trainee teachers' experience of reflection whilst undertaking Certificate in Education or Post-graduate Certificate in Education programmes for the Post-Compulsory sector.

It was based on a sequential, mixed methods design, employing a structured questionnaire and a semi-structured interview.

During the first stage of data collection, a sample of 127 trainee teachers completed a questionnaire about their experience of reflection and keeping a reflective journal. Findings indicated that the majority of trainees had a clear understanding of reflection and how it contributed to the development of their professional practice. A minority were less certain about the nature of reflective learning and its application to professional development. Most expressed agreement that keeping a reflective journal supported their professional learning. However, a substantial minority indicated difficulties with journal writing.

In the second stage of data collection, interview findings of 15 trainee teachers broadly supported the questionnaire findings about trainees' understanding of the purpose of reflection and its perceived value. However, analysis of the interview data indicated that there were individual differences in engagement with reflection, leading to some trainees experiencing difficulties, particularly with journal writing.

The thesis argues that reflective learning for professional development involves a personal-social dimension in trainees' mode of engagement and this is related to personal and social constructions of experience.

The thesis questions the use of the metaphor of 'reflection', arguing that the multiple reflections and changing images in a kaleidoscope offer a better analogy. The thesis proposes a theoretical model to integrate the content and process aspects of reflection, evident in previous models and typologies. This re-conceptualisation forms the basis for a practical application, the PERHAPS? model, which incorporates process and content and acknowledges different modes of engagement with reflection.
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This research investigates trainee teachers' experience of reflection. The difficulties of defining reflection are well documented (Moon, 1999; Roffey-Barentsen and Malthouse, 2009), with a plethora of associated terms, such as reflective practice, reflective learning, reflective writing, critical reflection, which, as Tummons (2007) notes, can lead to confusion. For the purposes of this study, reflection is broadly defined as referring to the review and evaluation of an experience to inform future behaviour, where 'experience' may refer to an interaction, a teaching session, something read, observed or overheard, which requires further analysis beyond that undertaken at the time. This definition of reflection conceptualises it as a means by which we make sense of our experiences (Boud, 2010), particularly events which give rise to situations of perplexity or uncertainty (Dewey, 1933; Schön, 1983). This view of reflection raises questions about the adequacy of the metaphor beyond those noted by Bolton (2005), leading to the suggestion of a kaleidoscope as an alternative. A personal – social dimension is evident in theoretical accounts of the way individuals make sense of experience and this is also apparent in the ways in which individuals engage with reflection and the associated use of different techniques. Difficulties can arise when the techniques offered for engaging with reflection do not match the individual's preferences.
The research question arose from my practice in teaching on Certificate in Education (Cert. Ed.) and Post Graduate Certificate in Education (PGCE) courses for trainee teachers in Post- Compulsory Education and Training (PCET) at a College in the South West of England. I was the Programme Leader for the Cert Ed. and PGCE programmes, with overall responsibility for all students on these courses at the College. I interviewed most entrants to the course, and taught many of them. In addition many were colleagues, taking the course alongside their teaching at the College. My position as an 'insider researcher' therefore gave rise to particular ethical issues, which are discussed in chapter 4. The course required students to evaluate their practice and to keep a reflective journal. Students were provided with information about the purpose of keeping a reflective journal at interview and during their first term on the course. The value of developing as a reflective practitioner was outlined in the programme handbook which all students received on starting the course. During the first term they were given a short handout (single side of A4) explaining what was expected of them, though there was no formally scheduled discussion of reflection on the scheme of work so most would have had little further input, as it was left to individual tutors to elaborate on this. However there would undoubtedly have been variations in the amount of support the trainees had received. Some also had experience of keeping a journal from the City & Guilds 7307 Stage 1 course, where they would have received more structured guidance as their journal entries were collected in and formatively assessed. So while there
were standard elements to trainees’ experience of reflection prior to the research, inevitably there was also some variation.

From informal conversations with students I became aware that some experienced difficulties with aspects of the course involving reflection, leading them to question both the value of keeping a journal and, in some cases, the process of reflection itself. The research question therefore is:

Why do some individuals experience difficulty with course components requiring reflection?

Subsidiary questions were concerned with individual differences in capacity for, and engagement with, reflection. Further subsidiary questions concerned individuals’ perceptions of its value, possible changes in their views of reflection during their training and the use of reflection after course completion. However, to investigate all of these was beyond the scope of my study. So, given the nature of my practice in Teacher Education, I chose to focus on trainee teachers and their engagement with reflection.

My aim was to explore trainee teachers’ experience of reflection, to gain an understanding of why some individuals experience difficulty with course components requiring reflection. To achieve this aim I needed to ascertain if they had a clear understanding of the process and its role in developing practice. I also needed to know more about how they engaged
with reflection. It seemed possible there were individual differences, but I needed to know more about these to identify aspects with which individuals experienced difficulty. From the pilot work, it became apparent that reflective journals represented one such area, so trainees’ views on the role of the journal were explored. The purpose of the research was to gain a better understanding of trainee teachers’ experience in order to provide insights into the most effective strategies to support the trainees’ development as reflective practitioners, both during the course and into their future practice.

As I began to explore the trainees’ experience of reflection, I became increasingly interested in the role of reflection in making sense of the experience of teaching. As the research progressed, it became apparent that there was a personal-social dimension to individuals’ engagement with reflection. Trainee teachers may draw on personal interpretations, based in previous experience to make sense of practice situations, both through thinking about events and by recording their thoughts in a reflective journal. They may also develop notions of practice collaboratively, through discussion with other trainees, tutors, mentors and others in their practice context. It could be also be argued that the ways individuals structure their accounts of experience, whether personally or socially through discussion, will be influenced by prevailing discourses about education (Gergen, 1999, 2001; Burr 2003). It seemed to me that these approaches to reflection mirror the constructivist-social constructionist approaches within psychology and that reflection can
therefore be seen as a means of constructing understandings of experience.

The following chapters provide a background to the research drawing on psychological theory and the literature on reflection, followed by details of the study and the findings. Chapter 2 presents the conceptual framework, based in psychological approaches to personal and social constructions of understanding. Here I propose that reflection represents a means of constructing understandings of experience. I use George Kelly's Personal Construct Theory as an example of a personal, constructivist theory and Berger and Luckman's view of social construction to explore theoretical approaches to the construction of understanding within psychology. In Chapter 3, I review literature on reflection, identifying constructivist and social constructionist elements in theorising and exploring some of the complexities within the literature. I suggest that one way to address the diversity is to categorise different approaches according to their emphasis on the content or the process of reflection. I review different models, identifying common features as well as areas of difference, with a view to developing a new model which encompasses both process and content elements. In Chapter 4 I discuss methodological issues and position my study, which uses questionnaires to select individuals for interview, within the participant selection model of mixed method designs outlined by Creswell and Plano Clark (2007). Chapter 4 also reviews the research methods used in the pilot work and outlines the pilot work undertaken as well as the format of the main study,
with questionnaires used to gain an overview and to select individuals for interview.

The questionnaire results are presented and discussed in Chapter 5. Chapters 6 and 7 present the interview findings. Chapter 6 considers the interviewees' perception of reflection and its relevance to their practice; Chapter 7 looks at the role of the reflective journal and identifies public-private and personal-social dimensions in reflection. Chapter 8 reviews the findings in relation to the literature, to reconceptualise reflection and proposes a three dimensional representation of the relationship between the dimensions identified and the content of reflection. Chapter 8 also presents a new model of reflection, the PERHAPS? model, which incorporates both content and process aspects within a format that is easy to apply to practice. Chapter 9 relates the findings back to the original aims and purpose of the study. In Chapter 9 I also present my reflections on the research, using the PERHAPS? model to consider the implications for my future practice, and suggestions for future research.
Chapter 2

Constructing understandings of experience

This chapter considers different theoretical approaches which explain how we develop our understandings of the world, drawing on the work of Piaget (1967), Kelly (1966) and Berger and Luckmann (1966), and examines the use of the metaphor of construction within these approaches. It explores the relationship between personal and social factors in the construction of our understandings and identifies terminology to distinguish these. As a result, it suggests that reflection may be conceptualised as a process of constructing understandings of experience.

Construction

As human beings, our senses are constantly bombarded by information from the world around us. How we interpret the sensory input we receive, has been the subject of much study within philosophy and psychology. How we then relate new information to our existing understanding of the world has also been extensively studied, with differing theoretical explanations proposed. Within psychology, the metaphor of ‘construction’ is commonly used to describe the ways in which we make sense of experience. Lakoff and Johnson (2003) consider metaphors to structure our perception, thoughts and actions, although Stevens (1996a) notes that metaphors may either illuminate or obscure our understanding, so it is important to examine their contribution. The
Concise Oxford Dictionary (1991) defines the verb ‘to construct’ as: ‘make by fitting parts together’. There are two key features of this definition, one is that it involves integrating a number of elements and the other is that this is an active process. Reber and Reber (2001) illustrate this with reference to perception. At the most basic level our perceptual system receives sensory input, which it transmits to the brain. The brain puts together the pattern of nerve impulses to make sense of them (Gross, 1996; Hewstone et al, 2005). In order to do so it draws on other sources of information, such as our prior experiences of similar events or situations. This happens automatically, without our conscious awareness. So, from this example, it is evident that we do bring together pieces of information in order to arrive at a coherent meaningful whole. Therefore, the analogy with construction, which the Concise Oxford Dictionary (1991) refers to as involving ‘interpretation or explanation’, obviously has some merits here. However, the utility of the metaphor depends on the nature of the materials as well as the ways in which they are put together.

We can explore the metaphor further by examining how different constructions may be formed. Just as bricks and cement can be put together to create a variety of relatively permanent structures, so Piagetian theory (Piaget and Inhelder, 1969) proposes that the child uses actions and experiences to progressively develop enduring mental representations of the world (‘schemata’) and the relationship of things within it. Learning takes place within the individual, through the dual processes of assimilation and accommodation (Piaget and Inhelder,
New experiences may be ‘assimilated’ into the existing conceptual framework, adding further applications, as we might add a conservatory to an existing building without changing the original structure. When an individual encounters an experience that doesn’t fit within his/her existing understanding of the world, Piaget considers this to cause an uncomfortable state of disequilibrium (referred to as disequilibration). In order to resolve this situation cognitive restructuring becomes necessary, a process which Piaget refers to as ‘accommodation’, which is akin to partial demolition and rebuilding, altering the original structure. He considers these two processes, assimilation and accommodation, to work together to achieve cognitive equilibrium (referred to as equilibration). In his view cognitive development progresses by a successive process of construction, development and reconstruction as new information becomes available. Again, these processes take place within the individual largely without conscious awareness (Newell, 1992).

Piaget’s position, in which understandings are created by individuals, can be described as cognitivist (Gergen, 1985; Still, 1996; Liebrucks, 2001) and constructivist (Geelan, 1997; Burr, 2003; Chiari and Nuzzo, 2003). That is to say, it sees meanings as cognitive constructions created within the minds of individuals (Still, 1996; Liebrucks, 2001). The analogy with construction is upheld, as pieces of experience are brought together to create relatively permanent understandings of the world. Just as there are physical limitations which govern what may be built, with the potential to create a variety of outcomes within these, so cognitive
understandings are bounded by the inherent information processing capacities of the individual (Gergen, 1985), but with scope for individual variation depending on experience. Such theories are commonly referred to as constructivist, to distinguish them from others which place greater emphasis on social aspects, rather than the individual (Burr, 2003; Kinsella, 2006). One such being constructionism, which was developed by Papert (1980) from the work of Piaget. This adds a social context to learning, with learners engaged in meaningful practical activities as they construct understandings (Papert, 1991). Papert presents his concept of constructionism, which he defines as 'learning-by-making' as an alternative to an instructionist model of teaching, supporting the idea of learning as a process of constructing understandings.

**Personal Construct Theory**

Perhaps the clearest exposition of the process of individual construction of understandings of the world is George Kelly's Personal Construct Theory. Kelly's view is that individuals make their own interpretation of events in the world and in so doing they attribute significance to events based in prior experience and future expectations (Kelly, 1966). The result is a personalised way of interpreting the world that Kelly refers to as the individual’s personal construct system. This fits the metaphor, emphasising the constructed nature of experience, drawing together different pieces of information. Like Piaget, Kelly conceptualises individuals as actively engaged with their world, constantly testing out
their expectations and revising their interpretations as a result of experience (Butt and Burr, 2004). He suggests a five stage cycle of experience, comprising: anticipation, and prior investment in particular positions, encounter, and the resultant confirmation or disconfirmation of the individual’s construct system, the latter leading to constructive revision (Kelly, 1966). Like the Piagetian concept of accommodation, this is equivalent to partial demolition and rebuilding of the construct system.

While Kelly considers the individual’s view of the world may be revised, he includes limitations on the capacity for change. In his view, experience is affected by how committed an individual already is to a particular position or course of action and the extent he or she is prepared to revise their view as a result of events. He proposes that an individual’s constructs will vary in the extent to which they are open to change (Kelly, 1966) and furthermore that as constructs are hierarchically organised, deeper or ‘core’ constructs will be more resistant to change. The result of the experiential cycle may be a revised view of the world, but alternatively it may give rise to feelings of confusion or discomfort, as strongly held personal beliefs are challenged. Writing specifically about teachers, Pope (2003) warns that the potential threat posed by reworking their view of the world may result in hostility and resistance to change when individuals’ core constructs are threatened. A similar situation is discussed by Boud et al (1985a; 1985b), who refer to the possibility of reflection arousing negative feelings, which can create a barrier to new
understandings. The parallels here merit some further exploration to consider the nature of the process involved.

So far the construction analogy appears workable, however a crucial feature of buildings is that they are constructed according to a pre-drawn plan which details measurements and components, furthermore the outcome is a solid entity with an indisputable physical reality. We have no specific plans to guide our interpretations of experience. This is particularly so for our interpretations of social interactions, since, although we are born into a pre-existing social world with norms for social behaviour (Berger and Luckman, 1966), these provide only general guidance. Furthermore, as there is no tangible outcome, we have no way of knowing if our interpretations are correct. Instead, we are largely reliant on our own judgements of the effectiveness of our interpretations, whether they make sense to us and help us to predict our environment and behave accordingly.

When we encounter something new or different, which doesn’t fit within our existing conceptualisation, we seek further information to help us make sense of the new entity. We may try to get a different angle or view to help us to interpret it. To help us we can also check our interpretations against those of others, someone else may provide a description or an explanation, to contextualise it from their point of view, to help us to make sense of it. However, as anyone who has discussed a shared experience with a colleague, friend or relative after the event will be aware, individuals often perceive events and others’ actions and
intentions differently. Indeed, Kelly (1966) suggests that it is unlikely that any two individuals would ever construct identical ways of conceptualising events. Sharing our thoughts/views with someone else offers a means of checking our interpretations, but it may also challenge our position and the assumptions on which our interpretations are based. This may lead us to question our own, or others’ interpretations of events. Constructivist views such as Kelly’s suggest that, unlike the construction of a building, we have no way of knowing which, if any, is the ‘right’ interpretation. This process of seeking further information, constitutes the essence of reflection, according to Dewey (1933, p13), who states, ‘to reflect, means to hunt for additional evidence, for new data’ which will help us to resolve situations of ‘perplexity’. Therefore, reflection can be a tool (another building analogy) to help us to construct new understandings of experience. After thinking things through, we may decide on some future course of action, dependent on our interpretations of the previous experience. This process is indicative of the human capacity for reflexive awareness, through which we can envisage alternative possibilities and become agents of change (Stevens, 1996a).

Kelly identifies clear potential for reflection because he talks of the possibility of different interpretations, ‘if we think the matter over carefully’ (Kelly 1966, p5). Kelly (1966) offers reflective evaluation of his own theorising, including a review of ways that Personal Construct Theory has been conceptualised. One of these is as a reflective theory, suggesting a close relationship between construction and reflection. The stages of Kelly’s experiential cycle evoke comparisons with models of
reflective practice. There are clear parallels with the components of Kolb’s (1984) experiential learning cycle and also the model of reflection proposed by Boud et al (1985b), which will be discussed further in Chapter 3. The role of reflection is emphasised by Salmon (2003), who develops the application of personal construct theory for teachers. There are also parallels here with Schön’s (1983) view of reflection as arising from situations of uncertainty (disequilibration, disconfirmation) where practitioners have to construct problems actively. Schön (1983, p40) characterised the process of reflection as active and constructive and believed the identification of the problem was key to enabling practitioners to make sense of their experience through reflection. Again, reflection constitutes a means by which individuals engage in constructing understandings of their world. The literature on reflection and teacher education offers further similarities, for example, Boyd and Fales (1983) found that reflection is often triggered by feelings of discomfort about a particular situation, and this will be explored further in Chapter 3.

Social aspects of construction

Although Kelly’s focus is on the personal construction of experience he accepts that individuals co-exist in a social world, which requires some shared understandings (Kelly, 1966; Bannister and Fransella, 1971; Dallos, 1996). His approach therefore emphasises the personal, but acknowledges interplay with the social. Other theorists, such as Berger
and Luckmann (1966) have placed greater emphasis on the social aspects of construction, although they acknowledge a personal component, as individuals will have their own interpretation of the world which is ‘subjectively meaningful’ (1966, p33), based in their own thoughts and action. Therefore, for Berger and Luckmann, like Kelly, the world of everyday life consists of multiple possible interpretations which originate in the thoughts and actions of individuals. The interplay between personal- social evident in these theoretical positions and how this is played out in practice will be discussed in Chapter 7.

Berger and Luckmann (1966) explore the ways in which we create our understandings of the world and they see meanings as derived from the social context, being transmitted and maintained through language and social interactions. They argue that the interactions we share with others and the routines of everyday life provide the elements of experience, the outline plans, from which we construct our understandings of the world. The child learns to use language to communicate with others, but language also mediates social practices. In their view, shared experiences and ways of talking about them mean that individuals develop corresponding world views based in their shared social context (Liebrucks, 2001). This position can be characterised as mutualist (Still, 1996) and social constructionist (Burr, 2003; Chiari and Nuzzo, 2003; Kinsella, 2006) in contrast with the cognitivist, constructivist approach of Piaget and Kelly and distinct from Papert’s constructionism. While the regularities and routines of daily life constantly serve to reaffirm our
interpretations, new experience and subtle variations in daily interactions will result in a constant process of reviewing and revision of our understandings. For Berger and Luckmann (1966) and other social constructionists socialisation is never completed but is always a work in progress (Wetherell and Maybin, 1996). Therefore, within a social constructionist view, our understandings of the world are always subtly developing and evolving. So perhaps rather than bricks and mortar, our interpretations are more akin to constructions made with lego blocks, whose combinations are infinitely flexible and are easily remodelled to recreate new forms as the need arises.

The role of language

Central to a social constructionist interpretation is the role of language in creating understandings of the world, rather than simply describing it (Gergen, 1985; Wetherell and Still, 1996; Edley, 2001). Individuals acquire ‘role-specific vocabularies’ (Berger and Luckman, 1966, p158) which legitimate their participation in specific sectors, or ‘sub-worlds’, of the wider community, such as work and social communities. For example, those working in education will acquire familiarity with a range of acronyms relating to government bodies, curriculum groups and assessment authorities. Subgroups within different sectors of the educational system will be familiar with sector specific terminology and procedures. Within specific educational settings there will be rules, roles and procedures that relate to each individual setting. Part of the induction
process will involve the introduction of new staff to the formal
components of the setting, but socialisation into a group goes beyond the
formal practices to include ‘tacit understandings’ of the role (Berger and
Luckmann, 1966, p158). Hence, language and social interaction provide
ways of categorising and describing experience, contributing to our
interpretations of experience.

The process of talking through events serves to give them substance and
credence, situating them within our wider understanding of the world.
According to Berger and Luckmann (1966) conversation is central to the
process of constructing and maintaining our understandings, so talking to
others helps us make sense of our experiences. Changing notions of the
nature of language have emerged from different disciplines to result in the
view that language is ‘productive rather than (merely) reflective’
(Edley, 2001, p435). So that when individuals engage in conversation
they do not talk about events, their talk creates shared understandings of
those events. Thus, knowledge and understanding are jointly developed
between individuals (Mercer, 1995). Through the vocabularies they use,
the sentences they construct, what they say and do not say, individuals
share their interpretations of events and create joint interpretations of the
world. Burr (2003) refers to this interpersonal function of language as
‘micro social constructionism’. Furthermore, according to social
constructionists such as Gergen (1985) and Wetherell and Maybin (1996),
the inherently social nature of language means that, even when another
person is not present, an individual’s personal interpretations of events
will be shaped by the language he/she uses to conceptualise those events. This explains how the personal is situated within interpersonal and societal contexts.

As well as influencing the development of social constructionism (Stam, 2001; Burr, 2003), Berger and Luckmann’s (1966) theorising is also in line with subsequent developments within educational theory. They describe how individuals develop tacit understandings of specific social contexts in which they operate, which enable them to communicate meaningfully with others who share those understandings. Similarly, in his portrayal of the reflective practitioner, Schön (1983, p49; 1987, p25) discusses the tacit knowledge which underpins everyday actions and professional practice. He discusses how practitioners go beyond what can be explicitly stated to deal with situations of uncertainty, through reflection-in-action. Schön relates practical competence to a form of qualitative understanding, which cannot easily be explicitly stated. Thus the tacit understandings, which form part of the individual’s socialisation into a ‘subworld’, are also central to the individual’s functioning within that setting. There are also links here to Lave and Wenger’s (1991) model of learning through participation in communities of practice, as what Berger and Luckmann appear to be outlining is the essentially ‘situated’ nature of experience. For an individual, experience is always situated within a particular social context, which defines what is salient.
Consolidating personal and social approaches

The approaches outlined above place different emphases on the role of personal and social factors in the ways in which individuals make sense of their experience and represent different positions on a personal-social dimension. While these two positions both accept that meanings are constructed, they represent profoundly different approaches to the study of human functioning.

The inherent individual-social dualism, which is apparent in these different theoretical explanations of the ways in which individuals make sense of the world, is a recurring theme within psychology (Burr, 2003; Hollway, 2007). The divergence of these two positions raises questions about the relationship between them and the extent of their contribution to our understanding of how individuals interpret their experiences. There are several possible ways in which such divergent theories or perspectives may co-exist. Still (1996) suggests one possibility is that they may exist in conflict, so for example meanings are either constructed by individuals or through social interaction. Such a clear cut distinction is hard to resolve and is unsustainable when theorists holding each position clearly acknowledge the contribution of the other, as Kelly and Berger and Luckmann do. Alternatively, they may be seen as supplementary (Still, 1996) with each accounting for the construction of meaning in different circumstances, or as complementary (Still, 1996; Hardy and Taylor, 1997), with both being necessary to provide a full account of the ways we
make sense of the world. Geelan (1997) also explores the interrelations between different positions. He considers each to offer a different focus, so together they enhance understanding by providing a depth and detail which individually they lack. Still (1996) similarly suggests they may coexist at different levels or domains of experience at the same time. Although there are difficulties in trying to blend such different world views, as both Still and Geelan acknowledge, due to the deeper underlying assumptions that each holds.

The idea of domains does offer a means of integrating personal and social approaches to the construction of understanding, and these are used to categorise different aspects of experience throughout the thesis, including the analysis of the questionnaire data in Chapter 5, the interview data in Chapter 7 and in the model presented in Chapter 8. Sapsford (1996b) suggests the term ‘domains’ is preferable to ‘levels’ as the latter suggests a hierarchical structure in which a particular level is higher or lower than another when, as Stevens (1996b) notes, each is separate with its own focus. The domains they identify are intrapersonal, interpersonal, group and societal, and the thesis uses an adaptation of these as a basis to categorise the content of reflection. The intrapersonal domain refers to processes within the individual, as portrayed by cognitivist, constructivist approaches. The interpersonal and group domains refer to social interactions between individuals in dyads and groups; the term interpersonal will be subsequently be used to refer to both of these. Here mutualist, social constructionist approaches come into play, although
constructivist approaches may still operate. The societal domain refers to the wider social-cultural context, incorporating social structures, historical and political influences where mutualist explanations may be more appropriate. This may explain the different ways in which learning can take place, both in the intrapersonal domain, through personal study and thinking, and the interpersonal domain through discussion with others, both of which result in new understanding. Correspondingly, reflection on experience resulting in new understandings can take place in both domains, personally, through introspection and journal writing, as well as socially, through discussion with peers, mentor or tutors.

Summary

This chapter has situated reflection within the context of psychological processes of making sense of experience. It has drawn on the work of Kelly (1966) and Berger and Luckmann (1966) to present theoretical explanations of the personal and social construction of understandings of the world. These alternative views appear to co-exist and complement each other, in that most theorists accept the contribution of both, whilst individually emphasising one or the other. Therefore, the chapter draws on Still (1996), and Hardy and Taylor (1997) to suggest these alternative explanations may be seen as complementary positions along a personal–social dimension, operating within intrapersonal, interpersonal and societal domains. This discussion of the theoretical relationship between personal and social continues in Chapter 3, through discussion of the
specific example of reflection. It is extended in Chapter 7, through the exploration of what happens in practice, the ways in which individuals use personal and social modes of reflection in constructing their understandings of events, and their experience of the process. It is further theorised in Chapter 8, which presents a diagrammatic representation of their relationship.

The following chapter will explore in more detail the literature on reflection and reflective practice and continue the discussion of the theoretical relationship between personal and social processes with consideration of constructivist and social constructionist assumptions underpinning theoretical approaches to reflection. Clearly, both personal and social elements may be involved in the construction of understandings of professional practice through reflection. However the relative contribution of each is unspecified, and furthermore it may vary between individuals at different times and in different situations. Therefore, there is a need for research to show what happens in practice and this is addressed through research into trainee teachers' experience of reflection.
Chapter 3
Theoretical approaches to reflection

This chapter reviews literature on reflection, noting the diversity of views, which may result in uncertainty about its use. Models of reflection are grouped according to their emphasis on either the process or content. A selection of these are reviewed to identify key features to inform the development of a new model. Underpinning constructivist/social constructionist assumptions are noted, with reference to the theories reviewed in Chapter 2. Ways of conceptualising reflection as either a personal or a social process are considered, as are individual differences in engagement. It is suggested that these also need to be taken into account in the development of a new model to support trainee teachers.

Conceptualising reflection

This section reviews the representation of reflection in the literature. It begins by considering some definitions of reflection and different forms of reflection that have been proposed, including critical reflection.

The literature offers differing views of the nature of reflection and its role in professional development, leading some researchers to question the use of the concept (Griffiths and Tann, 1992; Morrison, 1995; Ixer, 1999; McMahon, 1997; Rodgers, 2002). Certainly for the trainee teacher seeking to develop as a reflective practitioner there is a wide and potentially bewildering range of literature on reflection. This diversity
can be seen as advantageous as it offers flexibility in the ways reflection may be interpreted and, as Tummons (2007, p73) comments, it indicates reflective practice is a 'lively' area of critical debate. Alternatively Jay and Johnson (2002, p84) refer to reflection as 'an evolving concept' and suggest the ambiguity surrounding the term may make it difficult for the trainee teacher to get a clear idea of what s/he is expected to do. There is acknowledgement that students are uncertain about the process and what is expected of them (Loughran, 1996; Bolton, 2001, Mueller, 2003; Moon, 2004). Gay and Kirkland (2003) suggest that many trainee teachers don't have a clear understanding of what reflection is, or how to do it. It would seem they are not alone in this, Boyd and Fales (1983) found counsellors had difficulty in explaining what they did when they reflected. Though Boyd and Fales suggest that metacognitive awareness of reflection can enhance reflective learning.

Schön (1983; 1987) is generally considered as responsible for the upsurge in the use of reflection to develop professional practice across fields such as education, nursing and social work (Boud, 2010). His approach is usually related back to the work of Dewey (1910; 1933), who distinguishes reflection from random thought processes. Dewey regards reflection as a specific type of thought, an ordered sequence of ideas, where each component is linked to the one before and the one after (Newell, 1992; Calderhead and Gates, 1993; McMahon, 1997; Freese, 1999). This is very much a personal, introspective process situated within the individual, although others have stressed the social, collaborative and
discursive nature of reflection (Hatton and Smith, 1995; Brockbank and McGill, 1998). Mezirow (1998) offers several interpretations, including heightened awareness, thinking about events, which he suggests may be casually reviewing general experience, or considering specific events and speculating about alternatives. Moon (1999) explores different understandings of reflection, considering links to learning, problem solving and intuition, to identify some common features such as purposeful mental processing to reach a solution to some form of problem or difficulty. Applied to teaching, reflection usually involves the individual thinking through aspects of practice, spanning the intrapersonal, interpersonal and societal domains introduced in Chapter 2 (p25-6), to identify ways to develop and improve.

**Different forms of reflection**

Schön (1983) distinguishes the processes of reflection-in-action and reflection-on-action, although these have been questioned. Schön (1983, p54) refers to reflection-in action as ‘thinking on your feet’ in response to unexpected events, resulting in spontaneous alterations to action. There are clear links here to Dewey’s (1910; 1933) view of reflection originating in situations of uncertainty, hesitation, doubt, perplexity and conflict. Although Schön (1987) considers the immediate link to action as the defining feature of reflection-in action and Dewey’s (1910, p13) definition of reflective thinking as ‘judgement suspended during further inquiry’ suggests a temporal separation from action, more in line with
Schön’s reflection-on-action. Schön (1987) also ascribes a critical function to reflection-in-action, whereby prior behaviours are questioned to ascertain reasons for the unexpected events. This implies a step back from the immediacy of action, which Brockbank and McGill (1998) suggest indicates a blurring of the temporal separation of reflection-in-action from reflection-on-action. Moon (1999) similarly challenges Schön’s distinction of reflection-in-action and reflection-on-action, suggesting that he is inconsistent in his use of the terms and that the distinction is not always clearly apparent in the examples he uses. Furthermore she speculates that there is insufficient time for reflection during action and suggests that reflection might take place in short pauses between actions, when it would then constitute reflection-on-action. So, although widely used, these distinctions are not universally accepted.

Other theorists also appear to attempt to distinguish different forms or processes of reflection, Mezirow (1998, p186) makes a distinction between ‘implicit’ reflection, involving an automatic decision without questioning the situation or implicit values operating, and ‘explicit’ reflection when the process is brought into awareness and the reasoning behind the choice is analysed. It could be argued that in this case Mezirow’s ‘implicit’ reflection doesn’t involve reflection at all, since there doesn’t seem to be any review or evaluation of experience, while his ‘explicit’ reflection follows a model of critical reflection akin to critical thinking. However, there is also a suggestion of meta-cognitive awareness here too, as evaluating the process is part of the reflection.
Gelter (2003), makes an apparently similar distinction, referring to reflection occurring spontaneously when things go wrong, but otherwise being a deliberate activity which requires ‘time and effort’ (Gelter, 2003, p337). This appears similar to Schön’s (1983) distinction of reflection-in-action and reflection-on-action and as noted above, with temporal separation between the event and its review as necessary for reflection to take place. Other researchers offer further definitions of reflection and, as LaBoskey (1993) notes, there are inconsistencies in the way the term is used. Some interpretations appear to present reflection as synonymous with thought, whilst others offer more specific and technical definitions (Griffiths and Tann, 1992). It is apparent from these different representations that defining reflection is far from straightforward.

These conceptualisations focus on reflection as a process and draw a distinction between a spontaneous event and one which can be characterised as a deliberate, structured activity, with the individual being actively aware of the thought processes involved, a form of metacognition (Dewey, 1910; Boud et al, 1985b; Gelter, 2003). It is the latter deliberate process, corresponding to Schön’s notion of reflection-on-action, which has most concerned writers in education and which has become central to the development of trainee teachers’ practice. Reflection-on-action refers to the process of thinking about events and our actions after they have happened, with the aim of enhancing future practice. Again, this is evident in Dewey’s work, in which he emphasises the importance of the recollection of past events for reflection, to ensure that important aspects
are not overlooked (Dewey, 1933). This distinction of reflection as a deliberate, conscious activity implies that the focus is deliberately chosen, however this does not recognise less directed and unintentional sources. Bolton (2001) suggests that not all sources of material for reflection may be accessible and available for conscious selection, and participants in a study by Boyd and Fales (1983) reported reflection was often initiated by a sense of inner discomfort arising outside immediate conscious intention. Once the determinants reach awareness then they can become the subject of intentional reflective activity, but prior to attaining conscious attention they may still influence our behaviour and interpretations (Gladwell, 2005). So, there are further differences between accounts of the process of reflection.

Some caution is necessary here around the distinctions of conscious experience and unconscious influences. It would seem that authors such as Boyd and Fales (1983) and Bolton (2001), are referring to events which are not explicitly conscious at a particular time, perhaps because other experiences/events predominate (Gladwell, 2005). This evokes Dewey’s and Schön’s references to uncertainty or perplexity, the feeling that something isn’t quite right which impinges into conscious awareness, and which can become the focus of reflection if attention is directed at it. There are also aspects of psychological processing which will exert influences on the process of reflection. Newell (1992, p1327) characterises reflection as a ‘reconstructive process’, drawing on cognitive psychology to outline the role of selective attention, encoding
and memory in determining the content of reflection. His review thus identifies factors of which the individual may be unaware, but which will influence the selection and structuring of incidents for reflection. These views of unconscious influences are different from the role attributed to the dynamic Unconscious found in psychodynamic theory. The psychodynamic view is that Unconscious material is actively kept out of conscious awareness through the operation of defence mechanisms (Brown, 1961; Richards, 1974a, 1974b; Thomas, 1996). As Newell (1992) notes, such unconscious sources may also influence practice, but it is not my intention to explore these here.

**Critical reflection**

The representation of reflection as a process has also been extended with the use of the term ‘critical’ (Smyth, 1989; Hatton and Smith, 1995; Mezirow, 1998; Gay and Kirkland, 2003), though again there are differences in the ways in which this term is used. Mezirow (1998) offers criteria for distinguishing the processes of reflection and critical reflection, suggesting critical reflection involves an assessment of content, while reflection need not. In his view reflection is simply a process of reviewing experience without making judgements, though his use of ‘not necessarily’ (p186) suggests that reflection might involve such an assessment, in which case the distinction from critical reflection is not clear cut. He goes on to define critical reflection as a form of thinking, describing it as ‘principled thinking: ideally it is impartial, consistent
and non-arbitrary' (Mezirow, 1998, p186). His use of 'ideally' suggests that there may be occasions when critical reflection does not meet some or all these criteria, but it is not clear when this would become just 'reflection'. So here, the distinction between reflection and critical reflection is blurred. While Mezirow identifies features that he considers to delineate 'critical’ reflection, he notes that some authors use the term 'reflection' to refer to what, in his view, constitutes 'critical’ reflection, further indicating the difficulty of distinguishing the terms in practice.

While researchers such as Mezirow ally reflection with the process of critical thinking (Moon, 2004), others introduce elements of content, by using ‘critical reflection’ to refer to reflection which encompasses the wider ethical, social and political context of education (Brockbank and McGill, 1998; Smyth, 1989; Gay and Kirkland, 2003; Gelter, 2003). Morrison (1995) relates these two positions, reflection on experience and consideration of the wider socio-political context, to the work of Dewey and Habermas respectively, and considers them to be complementary (Morrison, 1996). He argues that while, as already noted, Dewey's approach is centred within the individual psychology of the person, Habermas situates reflection within the wider social context of education. Acknowledging conflicting interests and power structures within society moves the focus of reflection beyond the intrapersonal and interpersonal domains into the societal. The extension of the focus of reflection also extends its possibilities as a process beyond functioning as a tool for exploring personal practice, offering the opportunity to question existing
procedures and systems and the potential to bring about wider change.

This view of reflection as a critical tool is apparent in attempts to define stages or levels of reflection, and these will be discussed following consideration of models of reflection.

**Models of reflection**

This section reviews a selection of models which emphasise the process of reflection. Constructivist and social constructionist assumptions within these are identified and links are made to the domains outlined in Chapter 2 (p25-6). Common features between models are identified to inform the development of a new model, which is presented in Chapter 8.

Theorists have attempted to identify stages and components in the reflective process (Kolb 1984; Boud et al, 1985b; Brockbank and McGill, 1998; Hole and McEntee, 1999). Most consider reviewing and describing events as a starting point, leading to analysis and evaluation with implications for future practice. Some include deeper critical evaluation of understandings within a wider cultural, social and political context (Smyth, 1989; Hatton and Smith, 1995). Many take the form of a recursive cycle, starting with experience. Perhaps the best known of these is Kolb's (1984) experiential learning cycle, in which the two dimensions of concrete experience - abstract conceptualisation and active experimentation – reflective observation are integrated to form a four stage process. There is clear separation here between the event and the
reflection, in line with Schön’s reflection-on-action. Kolb (1984, p40) considers each component of the cycle constitutes a ‘learning mode’ and later relates these to individual preferences for learning styles, which suggests individual differences in engagement with reflection. Although his model appears to focus on processes within the individual, he challenges constructivist views of learning as a personal process and stresses the contribution of all components of experience, including other people, suggesting that dialogue with others can promote reflection. His approach therefore incorporates personal and social modes of engagement with reflection and the use of different reference points to support multiple interpretations, rather than a single source representation, as the metaphor suggests.

Boud et al (1985b) suggest three components to their model, with recursive loops encompassing behaviour, ideas and feelings, between experience and the resultant reflective activity, which follows the experience. Their view of reflection following experience again fits Schön’s distinction of reflection-on-action. Boud et al propose three stages to the process of reflection, the first of which is linked to content, by revisiting the experience, whether mentally, in writing or by describing it to others. This first stage uses intrapersonal and interpersonal content, such as feelings and behaviours and, like Kolb’s reflective observation, involves recall of details and the consideration of alternative points of view, leading to a re-evaluation of experience. So again, reflection is not just a simple re-casting of events but involves different perspectives.
supporting different interpretations. The results of this process may have a profound influence on the individual’s value system and sense of identity, so the focus is in the intrapersonal domain. Much of Boud et al’s approach suggests a constructivist view, with an emphasis on the individual’s perception and interpretation of events, and a revision of the individual’s conceptual framework resulting from the re-evaluation of experience. However, they present reflection as both a personal process, which may occur in isolation, and a social process that may be supported by others. So as well as the individual considering different points of view, others’ may also contribute their views, to give a series of different interpretations of events. Thus again reflection is not just a simple process from a single reference point but a complex evaluation drawing on information from multiple sources to arrive at an interpretation of events which is subject to change as further information becomes available.

Kelly’s Personal Construct theory (Kelly, 1966) allows for reflection and the five stages of his cycle of experience (anticipation, investment, encounter, confirmation or disconfirmation and constructive revision, as outlined in Chapter 2, p16) share some similarities with Kolb’s experiential learning cycle and Boud et al’s model of the reflective process. Although as Figure 3.1 (below) illustrates, they do not match perfectly.
Figure 3:1. Comparison of Kolb, Boud et al and Kelly

<table>
<thead>
<tr>
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<th>Kolb</th>
<th>Boud et al</th>
<th>Kelly</th>
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<tbody>
<tr>
<td>Pre-event</td>
<td>Prior experience</td>
<td>Anticipation Investment</td>
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<tr>
<td>Event</td>
<td>Concrete Experience</td>
<td>Experience</td>
<td>Encounter</td>
</tr>
<tr>
<td>Review and Evaluation</td>
<td>Reflective Observation</td>
<td>Return to experience Attend to feelings Re-evaluate experience Association Integration Validation</td>
<td>Confirmation Disconfirmation</td>
</tr>
<tr>
<td>Revision</td>
<td>Abstract Conceptualisation</td>
<td>Appropriation</td>
<td>Constructive revision</td>
</tr>
<tr>
<td>Action</td>
<td>Active Experimentation</td>
<td>Outcomes</td>
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</tbody>
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Kelly’s pre-experience elements of anticipation and investment encapsulate all the aspects of prior experience which Boud et al refer to, as well as allowing for deliberate pre-consideration of events. Kelly’s ‘encounter’ relates to ‘concrete experience’ in Kolb’s cycle, and ‘experience’ in Boud et al’s model. Their stage of ‘Returning to experience’ equates with Kolb’s Reflective Observation, but the nearest component of Kelly’s cycle is his stage of Confirmation-Disconfirmation, which shares a close proximity to the Validation component within the Re-evaluation of Experience in Boud et al’s model and probably includes their preceding stages of Association and Integration.

The similarity between the models is further apparent through Boud et al’s Appropriation component, which clearly relates to Kelly’s ‘constructive revision’. Boud et al suggest that when understandings
developed from experience are appropriated into the individual's value system they contribute to the individual's identity and become resistant to future changes. This clearly parallels Kelly's Modularity corollary and the limited potential for change when core constructs, which are central to the individual's identity, are involved (Kelly, 1996; Bannister and Fransella, 1971; Pope, 2003). Both thus focus on the intrapersonal domain. Kelly sees the cycle starting again with anticipation, after the evaluation of experience and any subsequent revision of constructs has taken place, while Kolb's 'active experimentation' and Boud et al's 'Outcomes' represent a clear action phase.

All three models represent the process of reflection as recursive. Kelly (1966) repeatedly refers to the 'cycle', through which the individual's personal constructs mediate experience. Kolb (1984) suggests experiential learning is best conceptualised as a constant process of development, rather than one with clearly defined outcomes. Boud et al (1985b) are clear that it is not a linear process, nor are the phases they identify neatly distinguishable and independent in practice. This supports findings by Boyd and Fales (1983, p105) whose study of reflective learning led them to conclude that 'Reflection is not a one-way, linear process'. Their suggestion is of a process similar to an alternating current, flowing back and forth between external events and the internal experience of them. This in some ways overcomes Boud et al's comments about the difficulty of separating elements of the process in practice, although it makes a visual representation more complex. More
recently Butt and Burr (2004) note that the cyclical process of reviewing our experience includes self review too, because of our capacity for reflexive awareness. So, these views of reflection see it as an ongoing process with a variety of components, involving intrapersonal and interpersonal content, in which individuals may engage alone, or through discussion with others.

This section has reviewed models of reflection which focus on the process or stages involved. As noted earlier, each refers to multiple sources of information, indicating limitations of the metaphor. Other theorists offer typologies or levels deriving from the content/focus of reflection, which are not explicitly related to stages in the process (van Manen, 1977; Manouchehri, 2002; I’Anson et al, 2003; Ward and McCotter, 2004). A selection of these is reviewed in the following section further illustrating the complexity within the literature. Again, constructivist and social constructionist elements are identified, illustrating personal and social underpinnings of the construction of understandings, links are also made to the domains outlined in Chapter 2.

**Levels of reflection**

Expositions of levels commonly start with a focus on practical, technical aspects of teaching, moving to analysis and evaluation of events within a wider context, beyond the immediate practice (van Manen (1977; Jay and Johnson, 2002). The practical, technical level concentrates on ways of
improving technical aspects of teaching, to support the trainee teacher e.g. classroom management and curriculum delivery, as well as the application of theory to practice (Valli, 1993). Schön's (1983) original intention was to establish reflection as a professional process to develop practice beyond a simplistic technical-rationalist approach. Though his own position has been questioned, as Adler (1991) claims Schön himself follows a technical instrumental approach to teaching. There is certainly a danger that reflection can become a simplistic review of the mechanics of practice, without any deeper engagement (Kilminster et al. 2010).

Further levels usually move away from immediate practice to explore theoretical outcomes from experience. l'Anson et al (2003) refer to non-hierarchical thresholds, and describe trainee teachers as moving from a practical and technically focused Pre-critical threshold to an Internalised threshold in involving mental rehearsal of alternatives. This implies a constructivist position reminiscent of Piaget's stages of cognitive development (Piaget and Inhelder, 1969). Higher levels usually involve evaluation of more abstract, theoretical ethical, moral and socio-political issues, rather than problems directly arising from practice. Thus, practitioners' evaluations move from personal and interpersonal domains rooted in practice, to the societal domain. The latter involves questioning of the impact of wider issues such as the content and derivation of the curriculum, assessment and examination processes, the structuring of the education system and wider social structures and inequalities, drawing on a range of sources of information. There is a link here to a critical
research paradigm in which practitioners engage in action research to promote change (Kemmis, 1985).

A progression from technical aspects of practice to the wider context is typified by Jay and Johnson’s (2002) three stage typology, in which they refer to ‘dimensions’ rather than levels. Their initial ‘Descriptive’ dimension, involves the selection of key elements of experience to allow interpretation, thus incorporating an element of construction by the individual. Their second, ‘Comparative’ dimension, similar to Manouchechri’s (2002) ‘Confronting’, involves considering other views, situating it within the interpersonal domain and again suggesting the use of more than one point of reference. They refer to different interpretations of the same event, acknowledging alternative constructions are possible. Their description suggests these are from within the individual’s own understanding, implying a constructivist approach. However, they also refer to the role of dialogue in presenting alternative views and note that language is not a neutral medium, so their approach incorporates social constructionist elements. Their final dimension ‘Critical’, involves consideration of the wider context of practice to review alternatives and make decisions for future action. Jay and Johnson (2002) suggest that engaging with this dimension enables practitioners to see themselves as agents of change, able to work towards educational ideals. Their typology incorporates the use of multiple points of reference, suggesting a complex process of creating successive interpretations, rather than a simple reflection. It also incorporates
reflection in intrapersonal, interpersonal and societal domains and acknowledges differences between personal and social engagement with reflection.

These examples illustrate some of the complexity in the ways reflection is presented in the literature. There are differences in terminology, with references to levels, thresholds, layers and dimensions in the different accounts. It is not clear what proportion of each level of reflection might be expected from practitioners at various stages of their training and experience, the optimum level that might be expected, how progression through these levels/thresholds is to take place, or the timescale over which this might occur. Furthermore, there appears to be no agreement whether reflection at the 'higher' levels is essential or just desirable, nor is it certain that individuals always reach these 'higher' levels or whether, having attained the higher levels, they would maintain this. Greater use of the lower levels has been found in studies which have looked at the application of levels of reflection in practice (Richardson and Maltby, 1995; Ward and McCotter, 2004). These findings probably say more about the trainee teachers' immediate concerns, their role as students and course requirements, rather than their capacity for reflection (McMahon, 1997; Ward and McCotter, 2004; Korthagen, 2004). It may be that the levels might be more appropriately viewed as a pyramid structure, and trainee teachers need to establish a secure base of subject knowledge and technical skills before they can move beyond reflection on these aspects of their teaching to consider wider issues which have a bearing on their
practice. Although this may be necessary to move on to deeper reflection, it may not be sufficient. If trainee teachers are to move on they need to be made aware of wider functions of reflection, or they may become caught up in the mechanics of practice and never realise the potential of reflection to transform practice in the way Schön and others envisage.

However, Brockbank and McGill (1998, p88) argue strongly that personal reflection, without a social dimension, is insufficient to achieve ‘the higher levels of critical thought, activity and self transformation’, suggesting some social input is essential. Jay and Johnson (2002) and I’Anson et al (2003) incorporate different viewpoints, different interpretations and discussion with others. Similarly Manouchehri (2002) suggests discussion with others promotes reflection at the higher levels, although how much, at what point and what form this should take is not specified. If the progression from personal practice to the wider societal context may involve a personal-social dimension this links with the view of reflection as a means of constructing understandings of experience and the constructivist – social constructionist approaches outlined in Chapter 2. What is clear is that reflection is a complex process that draws on a variety of sources of information in reviewing experience, suggesting that the existing metaphor does not adequately capture the process.
Challenging the metaphor – mirror or kaleidoscope?

Lakoff and Johnson (2003) identify the pervasiveness of metaphor in structuring our perceptions, thoughts and actions. Saban (2006) similarly considers how metaphors structure our view of the world. Although Stevens (1996a) cautions that while metaphors may enlighten, they may also obscure our understanding. Therefore, we need to choose our metaphors carefully. Bolton (2001, p43) notes the metaphor of reflection is limited and 'not a terribly useful one'. The views of reflection outlined above challenge the static image implied by the metaphor as they involve multiple sources of information and an outcome that is subject to re-evaluation and change. Therefore, rather than a static 'mirror image' of reality this suggests a dynamic image, constructed from a series of reflections, akin to a kaleidoscope. Just as the picture in a kaleidoscope changes as the mirrors cast different patterns of the pieces, so the interpretation of experience is constantly changing as further sources of information are added, leading to previous understandings being subjected to review.

The references to the use of different perspectives support the position that interpretations of experience are constructions. Kelly’s model is clearly constructivist, centred on the individual’s personal construct system, with interactions with others addressed through the sociality and commonality corollaries (Kelly, 1966). Kolb’s and Boud et al’s models also appear predominantly constructivist, as they are based within the
individual, although they do refer to discussions with others, suggesting a micro social constructionist dimension in accordance with Berger and Luckmann (1966). So these models make references to content, within both intrapersonal and interpersonal domains and conceptualise reflection as both a personal and a social process. The personal - social dimension will be discussed further in the next section.

Personal and social aspects of reflection

As the preceding review has shown, ways of conceptualising the process of reflection vary in the extent to which it is portrayed as an individual, personal process or a social, collaborative one, which involves input from others. When reflection is undertaken as a personal process an individual uses techniques such as introspection or journal writing to develop her personal interpretation of events. Such approaches are rooted in a constructivist approach, with personal construction of reality and experience based in individual cognitive processing. In support of this view, Boyd and Fales (1983) suggest that problem resolution comes to consciousness when the individual is alone. Many models appear to situate reflection within the individual (Kelly, 1966; Boud et al, 1985b; Kolb 1984; Hole and McEntee, 1999), leading Crow and Smith (2005) to suggest this is the most widely used technique for reflection. Indeed, Kinsella (2006) identifies constructivist assumptions in Schön’s work, as he situates reflection-in-action within what he refers to as a constructionist approach to reality, contrasting this with the objectivist
approach of technical rationality (Schön, 1987, p36). However, Kilminster et al (2010) critique an emphasis on the individual, which overlooks the wider context of practice.

Reflection may also be undertaken as a social, collaborative process and many authors support the value of input from others for extending reflection. Crow and Smith (2005) explore the use of reflective conversations and discuss the value of dialogue in taking reflection from being a personal, private process into the public domain. Bolton (2001) suggests reflection is more effective when conducted through discussion with others, peers or colleagues. Alger (2006) similarly supports a social, collaborative approach to reflection, with individuals engaging in discussion, rather than a personal, introspective approach. Thus, reflection may take place as a social process, with individuals engaged in discussion, or forms of shared writing such as online forums or blogs when interpretations of events are jointly developed. Such approaches originate in a mutualist approach (Chapter 2, p20), with social construction of reality and experience based in shared understandings of experience. In support of collaborative reflection, Ward and McCotter (2004) suggest that individual reflection tends to become absorbed with the practical technical aspects of teaching, while social, collaborative reflection may provide different viewpoints to take the process beyond the immediacy of practice. However, close colleagues may also share similar views and ways of working, so collaborative reflection, per se, may not challenge prevailing practices, (LSDA, 2003). The models
reviewed earlier note the value of different view points for extending our reflection and understanding of experience. As does Brookfield's (1995) model of successive critical lenses. Others have also argued for the centrality of dialogue with others for providing these (Day, 1993; Hatton and Smith, 1995; Freese, 1999; Rodgers, 2002; I’Anson et al, 2003; Gay and Kirkland, 2003; Ward and McCotter, 2004). Indeed, Schön (1983) refers to ‘reflective conversations’ and his accounts involve discussion/dialogue between practitioners, representing a social dimension to the reflective process, suggesting it is social constructionist, rather than constructivist as Kinsella (2006) claims. 

However, as noted in Chapter 2, psychological theories show how personal interpretations of events are situated within interpersonal and societal contexts, so individual reflection cannot be seen in isolation from social influences (Kemmis, 1985). Our cognitive processes are mediated by language, which introduces mutualist, social constructionist aspects (Still, 1996; Liebrucks, 2001). So when individuals reflect on their experience, whether in thoughts or through writing, their descriptions of events and ways they characterise roles and behaviours will be determined by prevailing discourses, that is, ways of talking about the world and the social relations between people in it (Parker, 1999; Hollway, 2007). Our thinking is therefore determined by these influences and cannot be seen as wholly individual.
For trainee teachers reflecting on their classroom practice there are many ways to describe people and events. The people involved may be described as individuals: ‘learners’, ‘students’, ‘pupils’, or grouped by course/stage/level, First year ND, 2nd year A level etc., the content may be a ‘course’, ‘programme’, ‘module’, which may be ‘taught’, ‘presented’, ‘delivered’, their own role may be that of ‘teacher’, ‘lecturer’, ‘tutor’, ‘trainer’. Each word carries with it slightly different meanings that will, in turn, have an influence on the ways in which practice is conceptualised, situations are problematised and alternative strategies are constructed. This extends the process of reconstructing events referred to by Newell (1992), showing how reflection represents a construction of practice with personal and social components.

Dialogue with others may offer ways to extend the reflective process, but this may not be necessary in all circumstances, nor is it clear how much external input is necessary or sufficient to extend reflection effectively. What is also uncertain is the extent to which individual teachers engage in personal reflection on their own and social reflection, through discussion with others, and furthermore whether all find social input valuable. It is also possible that the contribution of each may vary at different times, Day (1993) suggests that the nature of individual teachers’ reflection may vary, related to their life cycle development and stage in their career. So this raises questions about individual differences in engagement with reflection, which are reviewed in the following section.
Differences between individuals

There has been recognition that individuals may differ in their capacity for reflection and the way they engage with the process. Boud et al (1985b) suggest that the capacity for reflection may not develop to the same extent in all individuals. They stress the influence of prior experience on an individual's perception of events, with a clear link to Kelly's personal construct theory. Reiman (1999) concludes that there is variability in teachers' capacity to reflect on experience. He relates this to their cognitive developmental level, but takes a social constructionist approach suggesting reflection can be supported through social interaction. Moon, (2004, p1) works from the premise that 'we all reflect', although she does consider the possibility that some individuals cannot reflect, or may resist engaging in reflection. The latter response is also noted by Sumsion (2000). Studies have identified differences between trainee teachers in their capacity for reflective thought (Freese, 1999; Manouchehri, 2002; Giovannelli, 2003; Griffin, 2003).

Furthermore Boyd and Fales (1983) propose individuals may differ in their conscious awareness of their reflection. So although individual differences are documented in the literature on reflection, the implications of these for the development of practice are not clear.

Other researchers have tried to identify conditions which may influence individuals' capacity for reflection. Day (1993) suggests that teachers may approach reflection differently at different times/stages in their
career. Usher (1985) identifies students' conceptions of learning and knowledge among the main influences on their use of experience. Atkins and Murphy (1993) delineate prerequisites for reflection, such as motivation, self-awareness and open-mindedness. Sumsion (2000) similarly identifies the individual's view of learning, along with a narrow focus on practical aspects of teaching, rather than wider awareness of the potential role. These findings may shed light on why some individuals find it difficult to engage with reflection, they also suggest that what trainee teachers may be doing and experiencing may vary considerably (Day, 1993; Bolton, 2001). We cannot assume that reflection happens automatically for all individuals, or that they will all use reflection in such a way as to improve performance (Reiman, 1999; Moon, 2004).

Consequently it may be that trainees need to be offered a variety of techniques in order to support their use of reflection (Adler, 1991). The following sections will review a selection of such techniques.

Promoting reflection: the use of journals

A common requirement for teacher education courses is for students to keep a log or journal (Griffiths and Tann, 1992; Loughran, 1996; Mueller, 2003). Griffin (2003) acknowledges the value of journal writing, as it offers opportunities for trainees to use professional language and relate theory to practice, as well as linking practice to professional standards, whilst also considering the implications for future action arising from reflection. However it could be argued that essays and other written
assignments could fulfil these requirements. Bolton (2001; 2005) considers writing to be an important vehicle for reflection, with stages of the writing process (writing, re-reading, redrafting) enabling the writer to gain a clearer view of the experience under review. She refers to the learning journal as 'the cornerstone of reflective practice work' (2001, p159). Boud et al (1985b) suggest that writing may help the description of events at the start of the reflective process. While Richardson and Maltby (1995) found that the reflective process was facilitated by writing a reflective diary, provided its purpose was clear. Certainly recording experiences in a journal has the advantage that they are available for review and re-evaluation, rather than being lost and forgotten as new experiences predominate. Journal entries also enable trainees to look back over their experience and see how their practice and their thinking have developed over time (van Halen-Faber, 1997). However this presupposes that individuals will take the time to look back over their journal entries. Bain et al (2002) report student teachers saw journal writing as playing a major role in developing reflection. Reiman (1999) and Hughes (2005) refer to interactive journal writing, where tutors comment on trainees’ journals with the aim of extending their reflection. Other researchers also support the value of journals, but supplemented with discussion (Newell, 1992; McMahon, 1997; Hargreaves, 1997; Freese, 1999).

Not all individuals find journal writing helpful, Bolton (2001) notes that journals may not be equally used by all students. Some individuals may
find it easy to write, enjoy the writing process and find it a valuable method of exploring their thoughts and experience (van Halen-Faber, 1997; Bain et al, 2002). Others, for whom writing does not come as easily, may find this a chore and an intrusion on their thinking, seeing it as just another course requirement (Sumsion, 2000). Certainly there are reports of students experiencing difficulty with the journal writing process, and with students being uncertain what was expected of them (Mueller, 2003). McMahon (1997) draws attention to Vygotsky’s views on the relationship between thought and language (Kozulin, 1999), when thought is non-verbal it can be difficult to find the right words to characterise the process (Reiman, 1999). She suggests that student teachers should be given plenty of social opportunities to express their thoughts in words as well as writing journals. Reflection could thus be developed beyond journal writing through peer discussions, mentor conversations and tutor dialogues. Alger (2006) supports a social, collaborative approach to reflection and stresses the need to provide trainee teachers with ‘efficient and effective tools’ (p300) to enable them to use reflection effectively in their practice. One possibility is the use of online discussion forums (Reiman, 1999; Hughes, 2005), which combine the benefits of writing with a collaborative context.

Journal writing represents an individual and personal approach to reflection which, as already discussed, may not enable individuals to achieve the quality of reflection required to develop as reflective practitioners (Brockbank and McGill, 1998; Bolton, 2001; Gay and
Kirkland, 2003). There is also a tendency for personal reflection to remain focussed on practice, following a technical-rationalist approach (Ward and McCotter, 2004), while the input of others through discussion can introduce different viewpoints which may give the process a wider focus (Manouchehri, 2002; Jay and Johnson, 2002). Trainee teachers may benefit from collaborative discussions with tutors, mentors and peers, alongside personal reflection and journal writing. Indeed, Crow and Smith (2005) suggest there is some evidence that trainee teachers may learn more from peer reflection than from discussions with experienced teachers. Such discussions may allow them to observe and identify the nature of ‘reflective conversations’ referred to by Schön (1983), to enable them to develop their own reflective skills. Although collaborative reflection may be valuable it lacks permanency, unless recorded in some way. This raises questions about the purpose of the record, whether for the teacher to look back over to further their professional development, to fulfil course requirements to demonstrate that reflection is taking place, or some combination of both.

**Other ways to promote reflection**

Various authors have outlined ways in which reflection/reflective practice may be encouraged (Hole and McEntee, 1999; Sumsion, 2000; Bolton, 2001; Moon, 2004). Many use discussion and other activities, such as observation and role play, in addition to journal writing (McMahon, 1997; Hargreaves, 1997; Manouchehri, 2002). Others, such as Bolton (2001; 2005) recommend different forms of writing. Vazir (2006) suggests
journals and letter writing, while Braun and Crumpler (2004) recommend autobiographical writing. Perry and Cooper (2001) suggest exploring the use of metaphors in written accounts. Though Usher (1985) questions whether students can be taught to reflect and Newman (1996), expresses doubts about the value of the type of opportunities which are offered to trainee teachers to enable them to develop reflective practice. Harrison et al (2005) consider the role of mentors in developing reflective practice and explore different strategies used by mentors. One disadvantage of mentors is the likelihood of a power differential, which may inhibit the expression of some concerns on behalf of the trainee. Vazir (2006) perhaps simplistically, says that teachers need to be given the time and tools to become reflective practitioners. The Institute for Learning (IfL) provides ‘Reflect’ software as a tool for Further Education practitioners to engage with reflection, though finding the time to use this is left to the individual. Reflection certainly requires an investment of time and effort (Gelter, 2003) and many practitioners claim their practice affords them little time to reflect (LSDA, 2003). The variety of techniques outlined above certainly require time, apart from individual commitment.

It is clear that just as there are a variety of models of reflection so there are also a variety of ways to promote reflection. Calderhead and Gates (1993) suggest it is a developmental process, while Day (1993) has suggested that teachers’ reflection may differ at different times. Therefore, as Adler (1991) suggests, there is unlikely to be ‘one best way’ to apply to all individuals at all times. Any model of reflection needs to
take this into account and allow for different ways of engaging with reflection as well as considering process and content.

**Reflection in teacher education**

A number of authors have noted that the role of reflection and the model of the teacher as 'reflective practitioner' have become widely accepted by researchers and teacher educators over the last two decades (e.g. Hatton and Smith, 1995; Rodgers, 2002; Gelter, 2003; Mueller, 2003; Griffin, 2003, Alger, 2006; Tummons 2007; Boud, 2010). The dominant view of reflection apparent in the literature is that reflection benefits practice (Pollard, 2005; Hillier, 2005; Forde et al, 2006), although its acceptance has not gone unquestioned (Isher, 1999; LSDA, 2003). Therefore trainee teachers are encouraged to reflect on the basis that this will result in more effective practice (Newman, 1996; Reiman, 1999; I’Anson et al, 2003; Bolton, 2001, Tummons 2007).

The image of the teacher as engaged in an active constructive process of reflection drawing on assumptions about practice and using theory as a basis to reflect on practice may be the most widely accepted concept of reflective practice (Morrison, 1995). However this may not be the form of reflection most commonly adopted by trainee teachers, whose initial interests tend to lie with refining their practical skills (Ward and McCotter, 2004). Although students may initially be uncertain about what is expected of them (Loughran, 1996; Bolton, 2001, Mueller, 2003;
Gay and Kirkland, 2003; Moon, 2004) it seems most come to acknowledge the value of reflection.

A comprehensive study of recently qualified¹ FE teachers’ perceptions of aspects of their training (LSDA, 2003) found that most FE teachers demonstrate awareness of the role of reflective practice in their training and it was generally perceived as useful. Freese (1999) found that trainee teachers didn’t always appreciate the value of reflective activities at the time, but looking back could see how these helped them to become reflective practitioners. Some students enter initial teacher education with an established concept of reflection derived from their prior experience and this will contribute to their approach to reflection during the course. However, as Sumssion (2000) and I’Anson et al (2003) have pointed out, prior value systems and understandings of reflection may lead to different engagement with the process. So it may be necessary to consider prevailing models of reflective practice beyond those in teacher education courses to monitor their impact on trainees’ development as reflective practitioners (Mueller, 2003). Different starting points may be responsible for different levels of engagement so consideration should be given to differentiating the support given to students to promote reflection.

¹ FE teachers who had undertaken ITT within the previous 10 years
Conclusions

In this chapter I have reviewed the ways reflection is conceptualised in the literature, demonstrating the complexity of the concept and the complications caused by the use of different terminology. The recognition of reflection as a recursive process of construction and reconstruction, using different sources of information, challenges the traditional metaphor. Instead of reflection as a static mirror image of reality, I have suggested a kaleidoscope to capture the multiple reflections and changing constructions. Drawing on psychological literature outlined in Chapter 2, I have identified constructivist and social constructionist assumptions underlying different models, relating these to the personal-social dimension. I have also suggested the use of domains, from Sapsford (1996b), to describe the content of reflection. In Chapter 8 I present a model which integrates the personal-social with intrapersonal, interpersonal and societal domains. In view of the evidence for individual differences in engagement with reflection I am in agreement with Adler (1991) that it is unlikely one technique will suit all. Much of the research is from an ‘outside’ position, without reference to the experience of trainee teachers, their understandings of reflection and how they engage with it. Therefore, there is a need to explore trainee teachers’ experience of reflection to gain further insight into their preferred approaches. This information is used in conjunction with key features from theoretical models to present a new model in Chapter 8 to support trainee teachers’ reflective practice.
Chapter 4
Methodology

Introduction

This chapter will review a range of research paradigms to locate the present study within the most appropriate, before reviewing the methods used and outlining the procedure followed in the pilot work and main study.

Design

Henn et al (2006) suggest that research is driven by the 'pursuit of knowledge' which they characterise as 'asking questions .... and collecting empirical evidence' (Henn et al, 2006, p1 and p3). However, as they point out, this process is complicated by a lack of agreement about what constitutes the key components of 'knowledge' and 'evidence'. Sapsford (1996a) and Sikes (2004) consider research, research methods and theory are inextricably linked, as the researcher's world view will determine the questions asked, the methods adopted and the nature of the evidence generated, as well as its interpretation. From this viewpoint any discussion of research methodology therefore needs to include consideration of underpinning ontological assumptions about the nature of the world and the operation of entities within it as well as epistemological assumptions about what constitutes 'knowledge'. Indeed Scott and Usher (1999, p10) suggest underpinning philosophical issues are 'integral' to the research process. Burgess et al (2006) explain how these concepts (ontology, epistemology and methodology) relate to
research paradigms, such as positivism and interpretivism, which incorporate differing world views. So, in this section I will review accounts of different research paradigms, and associated research methods, then relate these to my position as a researcher. I will also explain the reasons for the methodology used in the research presented here, which follows a mixed methods approach, characterised by Creswell and Plano Clark (2007) as pragmatism.

The association of positivism with an objective, natural science approach to research is widely acknowledged (Scott and Usher, 1999; Morrison, 2002). Such research characteristically uses theory to generate hypotheses which are then empirically tested through the use of experiments, observation and measurement to generate quantitative data for statistical analysis. There are underpinning realist assumptions inherent in a positivist approach, which assumes that entities in the world exist independently of our experience of them and that scientific methods can accurately capture this reality (Wetherell and Still, 1996; Scott and Usher, 1999). In this paradigm the researcher is positioned as neutral and detached, examining behaviour from an ‘outside’ perspective, which does not take account of the subjective experience and understandings of the participating individuals (Stevens, 1996b). The focus of my research is individuals’ experience of reflection, arising from observations of my students’ experience during classes, tutorials, informal discussions and reading their journals, portfolios and essays. This level of personal involvement positions me away from the detached stance of the
traditional positivist researcher and the belief that objective accounts of
the world can be provided (Denzin and Lincoln, 1994; Usher, 1996;
Rubin and Rubin, 2005). As I outline below, my approach shares some
features of interpretivist, critical and constructivist paradigms, but the use
of mixed methods places it within a pragmatist approach, as defined by
Creswell (2003).

Research paradigms

There is some variation between authors in the classification of paradigms
beyond positivism, presumably because, as Creswell and Plano Clark
(2007) comment, world views are not static, but continue to evolve. They
use the term ‘world view’ in preference to paradigm, due to the many
existing definitions of the latter, although they say both refer to ‘how we
view the world and, thus, go about conducting research’ (p21). Their
categorisation doesn’t include positivism, but they use post-positivism to
refer to many of the characteristics mentioned above, including an
association with quantitative methods. Others, such as Guba and Lincoln
distinction between positivism and post-positivism. Guba and Lincoln
(1998) characterise the latter as accepting some of the limitations of a
positivist approach whilst trying to work within the same basic beliefs,
acknowledging similarities between the two. Post-positivism moves from
the naïve realism of positivism to an acceptance that knowledge of reality
can only ever be partial. As such it is subject to distortion by our
perceptions and interpretations of it, therefore claims to knowledge must be thoroughly examined, a position referred to as critical realism by Guba and Lincoln (1998). Burgess et al (2006, p54) suggest that post-positivist research often combines quantitative methods of data collection and analysis with qualitative methods, representing a clear move away from traditional scientific method. Indeed Denzin and Lincoln (1994) noted that the use of a variety of methods offers post-positivism a means of gaining the best possible understanding of events. In this sense the research presented here would fit within a post-positivist model. However the use of both quantitative and qualitative methods is often referred to as a ‘mixed methods’ approach (Creswell, 2003; Gorard and Taylor, 2004; Greene, 2005), and Creswell (2003) suggests a further world view, pragmatism, which will be discussed further in relation to the present study.

In addition to positivist and post positivist paradigms the literature details a variety of other paradigms. Usher (1996) and Scott and Usher (1999) identify a hermeneutic/interpretive paradigm, which challenges the assumption of the objective researcher, as an alternative to traditional positivism. Others, such as Morrison (2002) and Cohen et al (2007) distinguish positivism and anti-positivism, which they also refer to as an interpretive paradigm. As noted earlier (p61), the interpretive researcher is not expected to be a detached, objective tester of theory as in traditional positivist research. Instead these researchers seek to understand the meanings and events from the perspective of their participants, as I was
seeking to understand my participants’ experience of reflection. This raises the question of how to manage my own position as researcher, being intrinsically involved in the hermeneutic process and not able to step outside it. One suggestion, adopted by phenomenological researchers is to ‘bracket’ off their subjective experiences and explanations (Scott and Usher, 1999; Horton-Salway, 2007). However, as Horton-Salway acknowledges, this is an imperfect process. Scott and Usher (1999) suggest instead that interpretive researchers should use their experience and preconceptions as a starting point for research. This is what I did, using my experience of informal conversations with trainees which had highlighted some difficulties with reflection and using a reflective journal. Scott and Usher suggest that an interpretivist approach is popular within educational research because it acknowledges the ‘situatedness’ of the researcher in this way. Somekh (2006) discusses the unique knowledge available to practitioner researchers, the role of the researcher and the importance of researcher reflexivity, suggesting a social constructionist notion of the self gives a particular understanding of the research process. She also discusses the operation of power in action research, which I will return to later in this chapter with consideration of ethical issues (p98).

constructivism as essentially an interpretivist approach. This represents a move away from the realism of positivist and post-positivist approaches as it acknowledges that there may be multiple interpretations of events with no objective reality (Morrison, 2002). These characteristics clearly relate to the research presented here, which is concerned with individual experiences of reflection. Furthermore my standpoint as the researcher is not neutral, having personal experience of reflection in teacher education. Indeed, in accordance with Scott and Usher's suggestion, this formed the starting point for the research, therefore my approach closely fits an interpretivist approach. It also shares features of practitioner action research, as outlined by Somekh (2006; 2010) in that it is derived from knowledge gained in a natural setting and offers opportunities to explore my role as researcher in the research process.

There is general recognition of a further paradigm of 'critical' research (Usher, 1996; Cohen et al, 2007) which involves researchers taking account of how social, historical and political values shape current social and educational phenomena. This approach aims to challenge existing structures and practices to precipitate change and emancipate/empower individuals through action research (Henn et al, 2006; Creswell and Plano Clark, 2007). Burr (2003) aligns social constructionism with a critical approach and Burgess et al (2006) group constructivism with critical approaches.
As noted above, the research presented here shares features of an interpretivist approach, however it also has the potential to be considered as falling within a critical-constructivist approach. The focus of the present study, on reflection, clearly has the potential to meet the requirements of the critical paradigm as the findings represent a challenge to prevailing models and uses of reflection within teacher education. Elements of a critical approach can be identified in the present study, both in the focus and the methodology. Although I did not set out to conduct action research it could be seen as constituting this in its broadest sense, as it is based in the workplace with the intention of understanding and improving practice (Blaxter et al, 1996, McNiff et al, 2003). Most reviewers, such as Bell (1999) and Cohen et al (2007) emphasise the problem solving aspect, while Taylor (1994) also notes the role of action research in promoting change. Though Scott and Usher (1999) indicate this may variously refer to social change or changes in educational practices. They also consider action research to include a critical dimension. In some ways the research focus could be said to arise from a problem – the difficulties some students experience with reflection, but although the results may result in future changes to practice, the original aim of the research did not include the intention to precipitate change. Nor does it focus specifically on practice, a characteristic emphasised by Bryant (1996). Cohen et al (2007) explore a variety of definitions of action research, indeed Scott and Usher (1999) and Bryman (2004) consider it is difficult to arrive at a single, all encompassing definition.
While the approach taken here may fulfil some criteria, it could be argued that it does not have sufficient emphasis on personal involvement, collaboration and empowerment to fit within a model of action research, particularly as defined by Somekh (2006). However, as a result of my reading on action research I did develop the collaborative possibilities wherever possible and involved my participants (students and colleagues) to a greater extent than I had originally intended (Elliott, 2010). I believe that this has enabled me to gain a greater insight into their experience of reflection than would otherwise be possible (Somekh, 2002). One particular group of students formed the pilot sample for the development of the questionnaires and became collaboratively involved through their feedback in the early stages of the research. This component of the research comes closest to action research as outlined by Somekh (2006; 2010).

Creswell (2003) and Creswell and Plano Clark (2007) add a further world view, which they refer to as pragmatism, relating to the philosophical school of thought associated with Pierce, James and Dewey (Williams and May, 1996). James (1907, in Gunn, 2000) suggested pragmatism as an alternative to the prevailing rationalist and empiricist positions, offering an approach based in the practical evaluation of theories and ideas. Creswell and Plano Clark (2007) characterise pragmatism as taking a mixed methods approach to research, combining deductive and inductive reasoning with the use of quantitative and qualitative methods. They, and Gorard and Taylor (2004), argue for an emphasis on research
questions and the choice of methods to address questions and broaden understanding, rather than being constrained by paradigms. Although Gorard and Taylor prefer to avoid labelling this as a pragmatism, since they argue this could create another paradigm to adhere to. The combination of methods is not new within research in education and the social sciences (Gorard and Taylor, 2004; Silverman, 2001). However, recently there has been a move to treat this as a ‘third way’ for research methodology (Gorard and Taylor, 2004). The research questions under investigation in my study are based in subjective experience therefore the emphasis here is on the use of qualitative techniques to gain insight into individuals’ points of view (Denzin and Lincoln, 1994; Wetherell and Still, 1996; Blaxter et al, 1996).

Creswell and Plano Clark (2007) comment on the range of mixed methods designs which have been identified, but outline four major types which they refer to as Triangulation, Embedded, Explanatory and Exploratory. They consider the most commonly used to be the Triangulation design, which they describe as a single phase study in which data from qualitative and quantitative sources are used to provide a better understanding of the issue under investigation. The data are commonly converged to substantiate the conclusions, so qualitative data might be used to corroborate quantitative results. Triangulation involves the use of data from more than one source to cross check and thus strengthen the validity of findings (Banister et al, 1994; Bell, 1999; Burns, 2000). Bush (2002) outlines two forms of triangulation.
Respondent, or within method triangulation, when different participants are questioned using the same method and methodological triangulation when different methods of data collection are used (Bryman, 2004). Although as Silverman (2001) notes, this collection of further evidence still does not give an objective truth. This form of mixed methods approach is the type referred to by Burgess et al (2006) and Gorard and Taylor (2004) as having been used for some time. It also conforms to what is commonly referred to as ‘combining methods’ or ‘multi-strategy research’ (Henn et al, 2006). Elements of this design are apparent in my research, as the questionnaire incorporates qualitative and quantitative data, also qualitative interview findings are related to quantitative questionnaire data providing some basic methodological triangulation.

However, in the present study the questionnaire (quantitative and qualitative) data was used to purposively select participants for the follow-up interview (qualitative) phase. This follows the participant selection model of the Explanatory design outlined by Creswell and Plano Clark (2007), which they consider to be the most straightforward mixed method design (p74). Gorard and Taylor (2004) similarly describe a two stage design, in which issues identified in a quantitative first stage are explored in more depth in a qualitative second stage. The data collection in the main study took place in two stages, with questionnaire data used to select individuals for semi-structured interviews. The questionnaire data and interview findings are presented separately, although links are made
to connect the two data sets. So the present study uses a mixed method
design, according to Creswell and Plano Clark (2007).

This section has outlined a range of research paradigms. While it is noted
that the present study shares some features of both interpretivist and
critical paradigms, it is identified as falling within the criteria for the
participant selection of the mixed methods Explanatory design delineated
by Creswell and Plano Clark (2007). The next section reviews the
methods used within this design.

Methods

This section will review the research methods used, namely,
questionnaires, focus groups and interviewing, and outline the
administrative procedures followed.

Questionnaires

Questionnaires are widely used because they represent a relatively
economical, standardised means of obtaining information from a number
of participants (Bell, 2002; Opie, 2004). Relatively quick and easy to
administer, self completion questionnaires can provide general
information about participants’ experience, thoughts and feelings, which
can be analysed as data in its own right or used to select individuals for
further study. There are two purposes for using such questionnaires here:
firstly, they provided a general overview of trainee teachers’ experience
of reflection and the use of a reflective journal, which was used to formulate an interview guide. Secondly, the questionnaire responses provided a means of identifying individuals for interview, to explore their views in more depth. It is therefore important that the questions provide participants with the opportunity to express their views. A questionnaire needs to be relatively short and minimally intrusive or, as Henn et al (2006) note, participants may be discouraged from completing it; however it also needs to generate appropriate data which relate to the research question (Robson, 1999).

Questionnaire design requires careful thought and planning to consider the question types, formats and layout to be used as well as how the results will be analysed (Bell, 2002; Opie, 2004). The phrasing and sequence of questions in a questionnaire should be considered carefully, though as Robson (1999) notes, with a self-completion questionnaire participants are free to answer questions in any order they choose. Highly structured questionnaires with closed questions are easiest to analyse, as the results can be numerically coded and quantitatively analysed (May, 2001; Bryman, 2004). However the development of such items presupposes knowledge of the range of responses and, as Cohen et al (2007) note, care needs to be taken in developing and piloting such items to ensure that they cover the full range of responses and do not include bias. In contrast, open questions offer respondents the opportunity to express their views freely without being constrained by preset response categories (Bryman, 2004; Cohen et al, 2007). However, this may raise
some difficulties for analysis, as responses may be expressed differently and hence be difficult to classify. It can also be difficult to make comparisons between individuals and they may not all address the same areas. Consequently Bryman (2004) suggests open questions should be kept to a minimum. However, these problems are counterbalanced by the freedom offered to respondents to present their own experience in their own terms and comment/explain as they see fit, although this does assume that they are able to articulate their thoughts and present these on paper.

The focus here is on individuals’ experience of reflection, particularly those who experience difficulty with reflection, whether it is the process itself, its role in developing practice or the use of journals as a means of promoting reflection. While rating scale items may identify such individuals (and offer an easy response route for those who find difficulty with writing), open questions will provide deeper insight into respondents’ experience. As the participants are trainee teachers they should be able to provide appropriate written responses. Therefore, information gathering questions with personal wording were chosen for the pilot questionnaire (Robson, 1999, p244). The responses to the pilot questionnaire were subsequently used to generate rating scale items, which were used alongside the information gathering questions in the questionnaire with the main sample.
Cohen et al (2007) suggest that rating scales offer a way of differentiating respondents’ views, offering flexibility of response in a quantifiable format, which provides a quick and effective preliminary means of exploring views on reflection. Two commonly used methods are Likert and Semantic Differential scales. It can be quite difficult to phrase questions effectively and to select appropriate adjectives for a Semantic differential scale. Alternatively, Likert scales, which Henn at al (2006) identify as the most commonly used rating scale, offer a range of numbered responses to a statement or question. This type of item is relatively easy to create and can provide a fairly concise way of exploring respondents’ views, although it is not without drawbacks (Burns, 2000). There is no way of knowing how different respondents will interpret the categories – ‘strongly agree’ for one, may be ‘agree’ for another (Cohen et al, 2007). Also, the points on the scale cannot be assumed to be equally distributed, so the strength of feeling is not quantifiable (Burns, 2000), although, points on a scale are usually treated as equidistant, and the data assumed to be continuous, thus allowing the calculation of means and standard deviations, if required. Other issues concern the number of points to include on the scale and whether or not to provide a midpoint. Respondents generally tend to avoid the extreme ends of the scale, effectively reducing any scale by two points, but more than seven points can invoke unnecessary detail, and the verbal labels may lose distinctiveness, so a five or seven point scale is often recommended (Bell, 1999; Burns, 2000; Oppenheim, 1992).
Decisions about the structuring of the scale also have implications for the data analysis. With longer scales categories may be aggregated during analysis, but care needs to be taken with groupings to ensure the results are not distorted (Cohen et al, 2007). It may therefore be more accurate to use a scale with fewer points and keep the categories separate. Bearing these issues in mind, I decided to use a five point Likert scale, as this offers choice whilst keeping the visual appearance relatively straightforward. The use of an odd number of points includes a midpoint, which allows respondents to express uncertainty and not force them to commit to one view or the other (Oppenheim, 1992).

Interviews

Interviewing is a research method of longstanding which offers a flexible method of accessing subjective experience, enabling the interviewer to explore responses in a depth which questionnaires can never achieve (Bryman, 2004; Wragg, 2002). Robson (1999) comments that interviews fit well within a multi-method approach, either alongside questionnaires, or as part of a case study. However, as Burman (1994) notes, interviewing is labour-intensive, time consuming and the data generated may be difficult to analyse. The process can be difficult to manage and vulnerable to subjectivity and bias on behalf of the interviewer (Robson, 1999). Furthermore, respondents may not tell the truth (Wragg, 2002; Opie, 2004), though this is based in the assumption that the interview is a
means to gain insight into the participants' experience, rather than constituting a specific experience in its own right (Wilkinson, 2004).

Like questionnaires, interviews vary in their degree of structure and formality. Reviewers such as Fontana and Frey (1994), Bell (1999) and Cohen et al (2007) outline a variety of approaches. In a structured interview, predetermined questions with standard wording are asked in a set order and the responses recorded according to a coding system. Semi-structured or guided interviews are more open and flexible, centred on a framework of topics of interest, while open-ended, unstructured, depth interviews have a general topic but no preset questions or sequence. Semi-structured or 'respondent' interviews (Robson, 1999) offer the interviewer the opportunity to vary the question order dependent on the flow of the interview, to respond to questions and provided explanations where necessary, or omit questions if material has already been covered (Bryman, 2004). This flexibility enables the interviewer to respond to the interviewee whilst still maintaining control over the direction and content of the interview. Unstructured or non-directive interviews are referred to by Robson (2004) as 'informant' interviews, as the interviewee determines the focus and flow of the interview, rather than the interviewer.

This study is seeking to explore trainee teachers' experience of reflection, so there is a clear focus. Preliminary evidence of the interviewees' views was available before commencing the interview, as individuals were
selected on the basis of their questionnaire responses. Specific areas of interest have also been identified from the literature, so this fits the use of semi-structured, guided, 'respondent’ interviews, with mainly indirect, open questions, to allow flexibility to explore responses (Bryman, 2004; Robson, 1999; Rubin and Rubin, 2005).

Focus groups

Although often described as a form of group interview (Punch, 1994), focus groups can be distinguished by the facilitation of interaction between participants (Wilson, 1997; Wilkinson, 2004). The interaction between group members can provide insights that might not be elicited in a straightforward interview (Wilkinson, 2004; Cohen et al, 2007). A focus group is usually formulated with a specific topic in mind, to elicit participants’ views through discussion, with direction from the researcher kept to a minimum (Lankshear, 1993; Bryman, 2004). Although as Wilkinson (2004) notes, this reduces the researcher’s control over the situation, it also makes the discussion more democratic and diminishes the power differential between researcher and participants (Wilson, 1997). Wilkinson (2004) considers focus groups represent a flexible method of data collection, which may be used in isolation or in combination with other methods, both quantitative and qualitative (Wilson (1997). Cohen et al (2007) suggest that focus groups can be useful to triangulate with other methods such as questionnaires and interviews. This was the role of the focus group in this study. Its
purpose was to sample views on reflection to contribute to the
formulation of the interview schedule for use in individual interviews,
which would explore trainees’ experience of reflection in more depth.

The size and composition of a focus group needs to be carefully
considered. Participants are usually selected on the basis of
characteristics of interest to the researcher (Henn et al, 2006), in this case,
students on the Cert Ed/PGCE course. Cohen et al (2007) suggest that
focus groups are usually more effective when composed of relative
strangers, since prior relationships may influence participation and the
views expressed. However, Wilson (1997) and Bryman (2004) note that
researchers hold different views on this, with natural groups preferable in
some circumstances. It would have been possible to form a focus group
of volunteers from different student cohorts who would not know each
other well, but a natural group who knew each other could talk more
freely (Wilkinson, 2004), so a group of volunteers from an existing cohort
was used. There is the risk with any group that more vocal individuals
will dominate (Opie, 2004). The prevailing group dynamics were such
that everyone generally contributed to class discussions, but ground rules
were still established in the introduction to the focus group session and
everyone present contributed during the session.

Decisions about group size need to consider how much participants are
likely to have to say (Bryman, 2004). Smaller groups are more
appropriate for controversial or emotive topics, or those with which
participants are deeply involved. While larger groups may offer the potential for a wider range of views there is also the possibility that some participants may not contribute as freely in a larger group (Bryman, 2004). Wilkinson (2004) suggests group sizes may range between two to twelve participants, but recommends four to eight. She also recommends over-recruitment to ensure a suitable group size is obtained. Wilson (1997) and Cohen et al (2007) suggest four to twelve members, with Wilson suggesting six to eight as ideal, while MacIntosh (1993) and Bryman (2004) refer to six to ten members. A small group size was not necessary for the present study as the focus on their experience of reflection should mean the participants all have something to contribute, without this being an emotive area. Therefore a group of six to ten participants seemed appropriate.

Group interviews can be a quicker way of eliciting views and may be less intimidating than an individual interview, but these are not primary considerations in the decision to use focus groups (Bryman, 2004). Rather it is the benefits that may arise from discussion for which focus groups are chosen. Participating in discussion may encourage individuals to express views that they otherwise might not have thought about, it may also help them to articulate their views more clearly than simply responding to questions in an individual interview (Henn et al, 2006). Wilkinson (2004) also suggests a focus group discussion can give participants the opportunity to question each others’ views, resulting in some deeper explanations than an individual interview might elicit.
However, the constraints of the group mean that this can’t be the case for all the individuals’ views, whilst an individual interview can probe more deeply. Focus groups can generate a wide range of views which can then be used to inform the format for individual interviews. However they need careful management, both of the setting and the discussion to ensure that all are in a position to participate and that the discussion remains focused. In a focus group situation the interviewer’s role is that of moderator, who takes a back seat and allows the interaction to develop between the participants who have been carefully chosen. Indeed, Henn et al (2006) recommend the use of two moderators, with different roles, one to monitor recording equipment and note any significant changes of direction or areas of conflict, leaving the other free to just moderate the discussion.

Focus group discussions can be recorded, as with individual interviews, though the transcription process is more complex due to the number of voices involved and instances where one individual talks over another (Bryman, 2004). They can also generate large amounts of data when a series of groups are held. Wilkinson (2004) outlines two approaches to the data analysis, content analysis which identifies themes across the whole interview and ethnographic analysis, which looks at the interaction between participants. In this case there was a single focus group which was recorded, transcribed and subjected to content analysis to identify themes for use in the interview schedule.
This section has reviewed the use of questionnaires, focus groups and interviews, with justification of the decisions made about their selection for use in this study. A questionnaire with a mix of open/information gathering questions and rating scale items was chosen to obtain a broad picture of trainee teachers’ experience of reflection and to select individuals for interview. A focus group was used as a further means of sampling trainee teachers’ views to inform the development of an interview schedule. Semi-structured interviews were chosen as the method for exploring trainee teachers’ views of reflection in more depth than questionnaires could provide. The next section will outline the procedure followed in developing the questionnaire and interview schedule with the pilot sample.

The pilot study

This section will outline the pilot work undertaken to develop the questionnaire and the interview schedule for use in the main study.

A pilot study was conducted during the Spring Term of 2004. The aims were twofold:

1. To trial the questionnaire format
2. To obtain preliminary information to draft an interview schedule

Questionnaires

Robson (1999) recommends a formal pre-test of an intended questionnaire on a sample of at least 20 individuals from the target group.
For the current research, a pilot questionnaire (see Appendix 1) was completed by a convenience sample of twenty four students from two groups. Eleven students were from a full-time cohort and thirteen students from a part-time cohort (see Table 4.1). The full time students were in their second term of study and the part-time students were in their first term.

The questionnaire contained information gathering questions about participants' experience of reflection and keeping a reflective journal.

<table>
<thead>
<tr>
<th>Mode of study</th>
<th>Gender</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Part-time Cert Ed</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Part-time PGCE</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Full-time PGCE</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>7</td>
<td>17</td>
</tr>
</tbody>
</table>

As a result of this initial pilot study the questionnaire was modified to include sixteen closed questions using a five point Likert scale (see Appendix 3). This offered the opportunity to ask specific questions about the experience of reflection. The amended questionnaire was then further trialled with a sample of 13 part-time students.
Questionnaire design

Cohen et al (2007) suggest the usual practice is to move from unthreatening and factual questions through closed questions and leading into open questions. During administration of different versions of the questionnaires it was apparent that the information gathering questions were generally readily answered, suggesting there was no need to present them after the rating scale items. Indeed, to do so might even be counter-productive as the respondents might be influenced by the rating scale items or resent the time writing responses to the information gathering items after the quicker, structured items. So the final format presented the information gathering items first, followed by the rating scale items, in what Opie (2004) refers to as a ‘funnel approach’. The information gathering questions offer the opportunity for respondents to express their own views, thus generating rich authentic data. A short selection of closed items provides a concise sampling of their views on specific aspects and a way to triangulate with the information gathering responses. A final open-ended ‘Comments’ section offers the opportunity for any further thoughts which might have arisen from completing the rating scales.

The pilot questionnaires were analysed by logging responses to each question, along with the respondent’s code number, in accordance with Robson (1999). This was time consuming and often necessitated going back to the raw questionnaires to check results. As a result a coding sheet
was developed to summarise the responses to the information gathering questions, thus condensing the data and making it more manageable (Huberman and Miles, 1994; Robson, 1999) (see Appendix 5).

The coding frame encompassed the range of answers to each question and the categories were mutually exclusive so all responses could be clearly allocated (Bryman, 2004). However the open-ended nature of the information gathering items meant that some individuals gave only one response whilst others gave several, each of which was coded. Robson (1999) notes that the use of coding categories can result in some loss of information, but the categories were not used to replace the questionnaire responses, merely to summarise them, individual questionnaire responses were still referred to and are used to present the data in Chapter 5.

The summary sheets made it easy to identify potential interviewees and also meant that patterns of responses indicating recurring themes and possible topics for the interview schedule could be identified.

The outcomes of piloting the questionnaire were:

- The inclusion of sixteen Likert scale items
- Funnel structure with open questions followed by rating scale items
- Development of coding categories for open questions
Pilot study: focus group

Ten of the part-time students participated in a focus group. The group were given two general questions to focus their discussion (Bryman, 2004). These were negotiated with them before the discussion commenced, along with the ground rules for holding the floor during the discussion.

The questions were:

- What are your views on the role of reflection in developing practice?
- Does keeping a journal help?

The focus group discussion was recorded, transcribed and themes identified (Appendix 7). Points raised in the focus group discussion were used, along with questionnaire responses, in developing the interview guide for the main study.

Pilot study: interview

An interview guide, with potential questions and prompts to address key areas was developed (see Appendix 8) but, as recommended by Bell (1999), the ordering and phrasing of the questions remained flexible, dependent on the flow of the conversation. The interview aimed to explore the individuals’ experience and understanding of reflection, its
role in developing practice in relation to their identity as a teacher and whether it was possible to be a teacher and not reflect. The interview also explored their views on journal writing as a means of promoting reflection and any alternative techniques they may use for reflection. In addition, following Sumsion (2000), the interview asked participants’ views on the role of the teacher and the nature of processes of learning and teaching.

A pilot interview was conducted with one male trainee, selected from the full-time group of the pilot sample (see Table 4.1, p81), based on his questionnaire responses. The pilot interview provided valuable experience of the interview process and was helpful in refining the interview guide, which initially ran to several pages. The pilot interview showed that this was difficult to navigate and turning the pages could break the flow of the conversation. Consequently the topic areas were condensed to a single A4 sheet of areas and questions, with additional material available to check if necessary (see Appendix 9). Points could be jotted down to come back to, but generally these could be held in mind and introduced into the discussion at a later point. The pilot interview also indicated the length of time required, so that future participants could be accurately informed (Opie, 2004).

The outcomes of the pilot interview were:

- a condensed one-page interview schedule
- accurate time scale to inform interviewees
This section has presented the pilot work undertaken before the main study. It has outlined the development and trialling of the questionnaire, the use of a focus group to inform the development of an interview schedule and the pilot interview. The next section will outline the procedure followed in the main study.

**Procedure - the main study**

There were two stages to the main study.

1. Questionnaires used:
   - to sample a range of views
   - to select individuals for interview.

2. Interviews of a sample selected on the basis of their questionnaire responses.

**Stage 1: questionnaires**

**The sample**

The questionnaires were completed by one year’s intake (full-time and part-time) to the Certificate in Education/Postgraduate Certificate in Education courses at a South West College between April 2005 and March 2006. There was one full-time intake to the course in September. Most part-time students also start the course in September, but that year additional cohorts started in April and January. I decided to sample the intake from one full year, including full and part-time cohorts, to capture the full range of intakes to the programme.
The questionnaires were administered to 127 students in the second half of the first term of their study on the course (see Table 4.2). As noted on p7 at this stage they would have received information about the value of developing as a reflective practitioner and the purpose of keeping a reflective journal at the start of the course and would have been given a short handout (single side of A4) explaining what was expected of them. Although some would have prior experience of reflection/keeping a reflective journal, for others it would be completely new and it was left to individual tutors to provide support with this. So although the groups would have experienced some standard elements, their knowledge would be limited and there was likely to be variation in their familiarity with reflection at the point when the research was conducted. There was no check on the understandings that they might already hold, so as well as highlighting an area of omission in the course provision, this research could provide valuable information about trainees’ prior experience to inform future practice.

Table 4.2. Main study questionnaire sample – information gathering items

<table>
<thead>
<tr>
<th>Mode of Study</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Cert Ed</td>
<td>28</td>
<td>22</td>
<td>39</td>
</tr>
<tr>
<td>PGCE</td>
<td>24</td>
<td>19</td>
<td>36</td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td>41</td>
<td>75</td>
</tr>
</tbody>
</table>
Twenty three individuals from the part-time – April intake completed the open-ended questionnaire without the rating scale section added, so only data from the open-ended items is available for these. Three further individuals had the rating scale section accidentally omitted from their questionnaire; one individual did not complete the rating items and this was not identified at the time. Therefore, as Table 4.3 shows, 100 individuals completed the full questionnaire with open-ended questions and rating scale items.

**Table 4.3. Main sample: full questionnaire sample**

<table>
<thead>
<tr>
<th>Mode of Study</th>
<th>Gender</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Part-time Cert Ed</td>
<td>19</td>
<td>30</td>
</tr>
<tr>
<td>Part-time PGCE</td>
<td>19</td>
<td>19</td>
</tr>
<tr>
<td>Full-time Cert Ed</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Full-time PGCE</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>41</strong></td>
<td><strong>59</strong></td>
</tr>
</tbody>
</table>

**Stage 1: questionnaire procedure**

The questionnaires were administered to eight groups (one full-time, seven part-time) at the start of one of their course sessions. Only those present on the day were included in the sample, but absentees were few as the course has an 80% attendance requirement. The instructions included an explanation that this was unrelated to the course and that undertaking the questionnaire was voluntary (see questionnaire instructions –
Appendix 4). The questionnaire included a short explanation of the research on the front page (see Appendix 4). The pilot work showed that the procedure was more effective if the researcher remained with the group during the completion of the questionnaires. This meant that any questions could be answered and completion could be monitored, thus avoiding some of the limitations of questionnaires noted by authors such as Robson (1999) and Bryman (2004). As the course leader, the researcher was known to the participants and had interviewed the majority prior to the course. Some were also colleagues, taking the course alongside their teaching at the College, which created particular issues around the role of the practitioner researcher (Somekh, 2006).

The questionnaires were collected as they were completed, so the return rate was thus 100%. During collection each questionnaire was checked to ensure respondents included their name and indicated whether or not they were prepared to be interviewed. Sometimes the name was omitted as a genuine mistake, occasionally respondents preferred not to include it, in which case the researcher accepted that they did not wish their views to be identified. Such questionnaires were still coded and analysed, attendance registers were used to allocate individuals to appropriate gender/course groups.

Stage 1: questionnaire analysis

Students in each group were ordered alphabetically by surname and allocated a code from the tutor's initials (LM = Liz McKenzie), session
(ME=Monday evening) and a number from their alphabetic position on the register. This procedure ensured confidentiality whilst also providing a systematic procedure for data storage and analysis and retrieval (Huberman and Miles, 1994). Subsequently the entire sample was numbered from 1-127 to ensure anonymity.

The responses to the information gathering items on the questionnaires were analysed using the themes identified from the pilot sample, ie. Reflection, Course related, Practice based. They were coded using a highlighter to identify each response, eg. Respondent 001 gave two responses in one sentence:

As a record of experiences + ability to analyse our own practice

These were coded as 'Record Events' and 'Reflection - Analysis' (see Appendix 6). A note of the coding was made in the margin, and the response logged on the coding sheet (see Appendix 6), which allowed the data to be summarised across groups and categories. The coding sheet also recorded details of prior experience of reflection, experience of reflection and journal keeping so far and when the respondent wrote their journal. Each individual's responses were categorised and logged in this way for all 127 respondents, as in the pilot sample (p82-83). The coding sheet developed from the pilot work was modified slightly for the main sample (see Appendix 6). It was quick and easy to use, providing a clear summary sheet for each group. Individual responses of interest were logged at the bottom of the sheet to retain the richness of the data (Opie, 2004), (for example responses in each category see Appendix 6).
Responses to the rating scale items were tallied, totalled and converted to percentages (Appendix 13). Use of the full range of the rating scale was also monitored. The content of responses was also analysed in relation to the intrapersonal, interpersonal and societal domains identified in Chapter 2 (p25-26).

The questionnaires were used to identify individuals for interview. The original intention was to interview two groups, those whose pattern of responses indicated they were uncertain/unhappy with reflection, and those whose responses indicated they were committed to reflection. Ideally individuals for interview would be identified by their responses to the open-ended items about their experience of reflection, e.g. 'Still confused with the concept' and/or responses to the Likert items, eg. checking 'Unsure' or 'Agree' in response to items such as 'I do not understand what reflection is' and 'I have difficulty with the concept of reflection'. It became apparent from the pilot sample that the journal represented an area of difficulty separately from reflection eg. 'Time consuming and irrelevant', 'not helpful', so the interview sampling was amended to cover three groups. These were:

1. Those who experienced difficulty/were uncertain about reflection
2. Those who valued reflection but experienced difficulty with journal writing.
3. Those whose experiences of both were positive.
It also became apparent that while individuals were prepared to admit to difficulties with reflection, and would discuss this informally, the majority of these were not prepared to be interviewed. In some ways this is not surprising, given that the researcher was the tutor for some of the trainees and Programme Leader for the course, this is discussed further under the heading of ethics p98-9.

Stage 2: qualitative depth interviews

The interview sample

A purposive sample of 15 individuals was selected for interview on the basis of their questionnaire responses (May, 2001; Bryman, 2004). Their distribution across the three groups was:

1. Difficulties/uncertainty with reflection: 5 individuals, 1 expressed negative views of reflection and 4 expressed uncertainty;
2. Difficulties with journal writing: 5 individuals gave negative views of journal writing, whilst positive about reflection
3. Positive views of reflection and journal keeping: 5 individuals.

The interview sample was not intended to fulfil quotas of individuals in the sample subgroups groups; this information was just used to ensure the sample was reasonably balanced. As Tables 4.4 and 4.5 show, it included at least one representative of most of the subgroups – except for male full-time students.
Table 4.4. Main study interview sample – mode of study

<table>
<thead>
<tr>
<th>Mode of study</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part-time Cert. Ed.</td>
<td>7</td>
<td>47</td>
</tr>
<tr>
<td>Part-time PGCE</td>
<td>5</td>
<td>33</td>
</tr>
<tr>
<td>Full-time Cert. Ed.</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Full-time PGCE</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
<td>100</td>
</tr>
</tbody>
</table>

In the full-time cohort that year there were no male Cert Ed students and only 3 male PGCE students. Male students are under-represented in the interview sample in relation to the questionnaire sample.

Table 4.5. Main study interview sample – gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>4</td>
<td>27</td>
</tr>
<tr>
<td>Female</td>
<td>11</td>
<td>73</td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
<td>100</td>
</tr>
</tbody>
</table>

The subject areas taught by the interview sample were wide-ranging:
Animal husbandry, Art (2), Building/carpentry, Complementary therapy (2), Early childhood Studies, Food hygiene, Foundation Studies, ICT (2), Music technology, Outdoor Education, Sales/marketing, social work ( see Table 4.6).
Table 4.6. Breakdown of subjects taught

<table>
<thead>
<tr>
<th>Subjects taught</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animal husbandry</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Art</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>Building/carpentry</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Complementary therapy</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>Early Childhood Studies</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Food hygiene</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Foundation Studies</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>ICT</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>Music technology</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Outdoor Education</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Sales/marketing</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Social work</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>15</td>
<td>102</td>
</tr>
</tbody>
</table>

Stage 2: interview procedure

Respondents indicated on the questionnaire whether they would be prepared to be interviewed. Those selected for interview were contacted to explain what would be involved and how long the interview would take. They were also given a consent sheet (developed from the pilot version – see Appendices 10 - 11) to read and sign, with time to think it over. A convenient time was then arranged for the interview.

The interviews were conducted during the day in the College, mainly in the researcher’s own office (one was conducted in another office, one in a classroom and one in a student’s home). Care was taken over the setting to ensure it was comfortable and that distractions were minimised by putting the phone on cover and a ‘Do not Disturb’ notice on the door. The recorder and microphone were arranged so that the recorder was
visible to the researcher so its functioning could be monitored, but out of
the direct line of sight of the interviewee. The interview guide was
similarly positioned within the researcher’s view.

Each interview started by checking that the respondent was still prepared
to be interviewed and had enough time, to ensure it wasn’t rushed
(Wragg, 2002). Then factual questions followed, about the respondent’s
current teaching or recent events in class, to get them talking and forget
about the recording. The focus then moved onto reflection. The
respondents’ comments on the questionnaire were used to elicit their
views. When all the areas had been covered the interview concluded by
asking the respondent if there was anything further they would like to add
about reflection and then by thanking them for their time.

Stage 2: interview analysis

The first two interviews were tape recorded until a digital recorder and
external microphone were obtained. Each tape was copied to pass on to
the audio typist to transcribe. The digital recordings were transferred
directly onto the audio typists’ PC, with a copy retained on the
researcher’s password protected laptop. The typist was just given the
respondent’s initials and produced a line-numbered transcript headed
accordingly eg. ‘Interview with RP’. A sheet was prepared for the audio
typist to sign to ensure that she maintained confidentiality of the content
of the interviews. When the transcription was completed and passed to
the researcher, the interview and transcript were deleted from the typist’s PC. Copies of the transcripts were kept on the researcher’s password protected laptop, with back up copies on a memory stick (Watling, 2002).

Each interview transcript was printed on A4 paper and then checked against the recorded interview on the researcher’s laptop (Watling, 2002). Notes were also made about thoughts arising from the interview, following Rubin and Rubin (2005). Each transcript was then read through repeatedly to become familiar with the content, and any emerging themes were noted using highlighter pens and margin comments. This approach to the analysis was chosen in preference to using software to analyse themes to keep the researcher in first hand contact with the data. As the first five interviews were analysed several recurring themes became apparent and these were then used in future analyses. With subsequent interviews transcripts were also highlighted on screen and coded using the ‘Insert – comment’ facility in Microsoft Word.

Sets of recording sheets were created for each interviewee with separate page(s) for each theme (see Appendix 12). As examples of a theme were identified in the transcript these were coded and then cut and pasted from the transcript onto the appropriate sheet, with the accompanying line numbers. Any additional comments of interest were also logged in this way.
Ethics

There are ethical considerations to be taken into account with any research study. These include aspects such as seeking institutional consent, gaining informed consent from participants, ensuring confidentiality/anonymity, procedures for reporting findings, possible power issues (Bell, 1999; Cohen et al, 2007).

Cohen et al (2007) outline four elements for informed consent: competence, information, comprehension and voluntarism. These mean that participants are competent to make a reasoned decision, provided that they are given relevant information to enable them to fully understand the implications of the research. Their participation is voluntary, in the light of the information they have been given. Bell (1999) advises providing potential participants with a written outline of the research in advance, to give them time to read it through and consider the implications before agreeing to participate. This was undertaken for the questionnaires and interviews (see Appendices 4, 10 and 11).

Prior to commencing the research it was necessary to provide the Principal of the College with a written outline of the research proposal in order to obtain his consent to conduct research within the College.

Before administering the questionnaires verbal informed consent was obtained from participants. The questionnaire itself was prefaced by a short explanation of the rationale for the study and the intended use of the
data, with reassurances about confidentiality and anonymity (Scott and Usher, 1999). A consent form was developed for interviewees to sign prior to being interviewed (Appendix 11). This outlined the research, asked the interviewees if they wanted to read a transcript of the interview and see any reports resulting from the study (Scott and Usher, 1999), as well as requesting permission to record the interview and to use quotations from it and from students’ written work.

It is also important that participants do not feel under pressure to participate. This does raise potential power issues, because most of the participants were students on the course for which I was the Programme Leader. Some were also students whose work I was marking. It was possible they might feel under an obligation to participate and therefore not able to freely give their consent (Busher, 2002). Some participants were also staff at the College, undertaking the teaching qualification as a contractual requirement, so again might feel under an obligation to participate. They may also have concerns about the possible audience for their responses. I attempted to address this by explaining that the study was part of research that I was doing independently of the course and the College, although the findings might have implications for the way the course is delivered in the future. I assured them that their responses would be treated confidentially and their anonymity maintained.

Interview participants were also given the opportunity to refuse to answer questions and to withdraw from the study at any stage without penalty and their data would not be used. I offered participants the opportunity
for discussion and shared my reasons for exploring their experience of reflection. So although I took steps to ameliorate the power issues inherent in the situation I could not change my institutional role in relation to my participants. As Somekh (2006) notes, the operation of power within institutional contexts is complex and it is probable that issues around the institutional context may have influenced their participation and responses. Certainly some of the more negative questionnaire responses about reflection were anonymous, or from participants who indicated they did not wish to be interviewed, suggesting they did not feel comfortable in exposing their views to me. However the majority of trainees (69%) indicated on the questionnaire that they were prepared to be interviewed about their experience, suggesting that they felt able to discuss this with me. The interviews gave participants the opportunity to give their opinions on how reflection is used in the course and ways its role might be developed. Interviewees were offered the opportunity to read their interview transcript; they were also offered the opportunity to read the finished research report (see Appendix 11).

This section has outlined the characteristics of the samples used in the pilot and main studies, with details of how they were obtained. It has also outlined the procedures followed at each stage of the research, including the development of the questionnaire, conducting the interviews and how the data were analysed.
Summary

This chapter has reviewed research paradigms and located the present study within the participant selection mode of the Explanatory design as delineated by Creswell and Plano Clark (2007) in their classification of mixed methods research. It has reviewed the use of questionnaires, interviews and focus groups and explained the decision to use a questionnaire to collect general information and select individuals to participate in semi-structured interviews. This chapter has also outlined the pilot work to develop the questionnaire and interview schedule and the procedure followed in the main study, including details of the sample. The next chapter will present the questionnaire findings and the following two chapters the interview findings.
Chapter 5

The questionnaire results

This chapter presents the results from the first stage of the research, the questionnaires, which were administered to one year’s intake to the Cert Ed/PGCE programme between April 2005 and March 2006 (as detailed in Chapter 4, p86-88). As explained in Chapter 4 (p69 and p86), the questionnaires served two purposes:

- To provide a general overview of the trainee teachers’ experience of reflection which was used to develop the interview questions
- To select participants for interview

The questionnaire comprised six information gathering items, generating qualitative data (only four of which are analysed here – see p115-116), followed by sixteen rating scale items generating quantitative data. As outlined in Chapter 4 (p69), this follows a mixed method approach with different methods of data collection used to provide data triangulation. The data are presented in two sections:

- The quantitative findings from the sixteen rating scale items
- The qualitative responses to four information gathering questions.
Rating scale items

The rating scale items are grouped around four themes:

1. Perceptions of reflection
2. The role of reflection
3. Process and content of reflection
4. Views on the role of the journal

As outlined in Chapter 4 (p87-8), 100 trainee teachers completed the rating scale items and as noted (p90), responses have been totalled and are expressed as percentages. A five point scale was used, but in most cases the 'Agree'/"Strongly Agree" and 'Disagree'/"Strongly Disagree" categories have been combined to simplify presentation; full tables are presented in Appendix 13.

1. Perceptions of reflection

To address the study aim (stated on p8), the questionnaire included items intended to explore trainee teachers’ understanding of reflection, particularly in view of the claim by Gay and Kirkland (2003) that many trainee teachers don’t have a clear understanding of what reflection is. Following the findings of the LSDA study (2003), that while teachers valued reflection during their training, many reported their full-time teaching role left no time to reflect, further items asked about the value of reflection and finding time to reflect.
Table 5.1. Understanding of reflection

<table>
<thead>
<tr>
<th></th>
<th>Agree</th>
<th>Unsure</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have difficulty with the concept of reflection</td>
<td>12</td>
<td>16</td>
<td>72</td>
</tr>
<tr>
<td>I do not understand what reflection is</td>
<td>4</td>
<td>3</td>
<td>93</td>
</tr>
</tbody>
</table>

N = 100

Table 5.1 shows, reassuringly, that the majority of individuals (72%) expressed disagreement with the statement that they have difficulty with the concept of reflection. However 12% indicated agreement that they have difficulty with the concept and a further 16% indicated they are unsure, suggesting some support for Gay and Kirkland’s claim. As just over a quarter of the sample did not disagree with the statement, it is possible that they would benefit from more support with reflection. This lack of confidence was not apparent from the information gathering responses, showing the value of including a mixture of items in the questionnaire. These type of responses identified individuals as potential interviewees, though unfortunately such individuals also tended to either complete the questionnaire anonymously or indicate that they did not wish to be interviewed.

In response to the statement ‘I do not understand what reflection is’, 93% of the respondents indicated disagreement, of these 29% indicated that they strongly disagreed and 64% disagreed (see Table 5.1a, Appendix 13). Therefore, a substantial majority of these trainee teachers claim to have a clear understanding of reflection, in contrast to the position represented by Gay and Kirkland (2003). Though it should be noted that
these findings rely on the trainees’ self reporting, with no check on their actual understanding, so it is possible they are harbouring misconceptions. Although the interviews do address this (see Chapter 6), it is something which future research could explore further.

The questionnaire also included the statement ‘Reflection is something which comes naturally to me’. As Table 5.2 shows, over half, some 59% expressed agreement with the statement (21% strongly agree; 38% agree, see Table 5.2a, Appendix 13), while 25% are unsure and 16% express disagreement with the statement. So, these responses suggest individual differences in readiness to engage with reflection. For quite a substantial minority (41%) reflection is something they are not used to doing. It therefore may be something that they need time and support to explore. Again, this indicates the importance of clear direction and support early in the course.

<table>
<thead>
<tr>
<th></th>
<th>Agree %</th>
<th>Unsure %</th>
<th>Disagree %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reflection is something which</td>
<td>59</td>
<td>25</td>
<td>16</td>
</tr>
<tr>
<td>comes naturally to me</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

N=100

In response to the statement ‘I value reflection’ the majority of respondents (84%), agree, as Table 5.3 shows. These questionnaire responses are in line with the LSDA (2003) findings, though with 11% unsure and 5% expressing disagreement with the statement, that does still leave 16% who aren’t prepared to agree to its value. These type of
responses identified potential interviewees, although as noted above, not all were prepared to be interviewed.

Table 5.3. The perceived value of reflection

<table>
<thead>
<tr>
<th></th>
<th>Agree %</th>
<th>Unsure %</th>
<th>Disagree %</th>
</tr>
</thead>
<tbody>
<tr>
<td>I value reflection</td>
<td>84</td>
<td>11</td>
<td>5</td>
</tr>
</tbody>
</table>

N = 100

The LSDA (2003) study also reported that many practising teachers found that teaching full time left them no time to reflect, and, as Table 5.4 shows, time constraints are apparent amongst the respondents here.

Table 5.4. Finding time to reflect

<table>
<thead>
<tr>
<th></th>
<th>Agree %</th>
<th>Unsure %</th>
<th>Disagree %</th>
</tr>
</thead>
<tbody>
<tr>
<td>I find it difficult to make time to reflect</td>
<td>58</td>
<td>16</td>
<td>26</td>
</tr>
</tbody>
</table>

N = 100

Table 5.4 shows that, despite the value placed on reflection over half (58%) are in agreement that finding time for reflection can be difficult. Only around a quarter (26%) express disagreement with the statement, suggesting they don’t experience difficulty in finding time to reflect. Clearly, this is an issue for trainee teachers as well as the practicing teachers in the LSDA study, and this could represent an area for future study.

Generally though the majority of the trainee teachers sampled think they have a clear understanding of reflection and value it, though managing to make time for reflection can be difficult. These questionnaire items relate
to the research aim of exploring trainees' experience of reflection by addressing their understanding of reflection, as outlined on p8. The findings indicate some areas of difficulty, which the interviews explore in more depth.

2. The role of reflection

There is recognition in the literature that students are often uncertain about the process of reflection and what is expected of them (Loughran, 1996; Bolton, 2001; Moon, 2004). So the questionnaire included several items to explore trainee teachers' understanding of ways they might apply reflection, to address their understanding of its role in developing practice, in relation to the study aim (see p8).

As Table 5.5 shows, views on the application of reflection to practice are generally positive.

<table>
<thead>
<tr>
<th>Table 5.5. The application of reflection to practice</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>I know what I am expected to do when I reflect on my practice</td>
</tr>
<tr>
<td>I do not understand how reflection will help me to develop my practice</td>
</tr>
<tr>
<td>Reflection helps me to refine my teaching skills</td>
</tr>
</tbody>
</table>

Over three quarters, (77%), indicate agreement with the statement 'I know what I am expected to do when I reflect on my practice', and only
2% expressed disagreement. However, this leaves a fifth, (21%) who indicate they are unsure that they know what they are expected to do when they reflect on their practice, supporting previous findings of students’ uncertainty (Loughran, 1996; Bolton, 2001) and Gay and Kirkland’s (2003) claim that many students don’t know how to reflect. Individuals expressing these views would be potential interviewees.

Table 5.5 also shows a large majority, 87%, expressed disagreement with the statement ‘I do not understand how reflection will help me to develop my practice’, while over a third (34%) indicated that they strongly disagreed (see Table 5.5a, Appendix 13), with just 7% unsure and 6% in agreement with the statement. Furthermore, 82% indicated agreement with the statement that ‘Reflection helps me to refine my teaching skills’, although 16% indicated that they were unsure in response to this statement. So, while it is reassuring that a majority appear to have a clear understanding of how to apply reflection to develop their practice, it is also possible that these figures may be inflated by the context in which the questionnaires were completed, as some of the respondents may have been unwilling to admit to any uncertainties they might have. However, some are prepared to admit to uncertainty and again, this may indicate the importance of clear direction and support early in the course. These expressions of uncertainty/negativity again indicate potential interviewees.
Two of the questionnaire items looked at the wider applications of reflection, without specifying a link to practice. Interestingly respondents were less certain about reflecting on their learning than their practice. As Table 5.6 shows, over two thirds (67%) indicated their agreement that they know what they are expected to do, though 31% express uncertainty, again indicating potential interviewees. This suggests that the trainees are not sure about transferring their reflective skills beyond their practice and could be something further research could investigate.

Table 5.6. Wider applications of reflection

<table>
<thead>
<tr>
<th></th>
<th>Agree %</th>
<th>Unsure %</th>
<th>Disagree %</th>
</tr>
</thead>
<tbody>
<tr>
<td>I know what I am expected to do when I reflect on my learning</td>
<td>67</td>
<td>31</td>
<td>2</td>
</tr>
<tr>
<td>Reflection helps me to consider different ways of doing things</td>
<td>91</td>
<td>7</td>
<td>2</td>
</tr>
</tbody>
</table>

N = 100

However there is a high level of agreement (91%) that reflection helps them to consider different ways of doing things. It is possible though that the phrasing of this item could be taken as relating to their teaching, rather than wider aspects of their life.

These questionnaire responses suggest that the majority of the trainee teachers feel clear about how they should be applying reflection and the benefits it can offer, particularly for developing their practice. However, the items also indicate areas of uncertainty, which may merit further investigation.
3. Process and content of reflection

Chapter 3 reviewed prevailing conceptions of reflection and identified emphases on processes and content amongst existing models, noting representations of reflection as a personal and a social process. Several authors advocate a social, collaborative process as more effective than individual introspection (Bolton, 2005; Manouchehri, 2002; Alger, 2006). The inclusion of the statement ‘I find discussions with peers/colleagues help me to reflect’ represented reflection as a social process. Table 5.7 shows that many of the respondents (88%), expressed agreement with the statement. A few (3%) indicate disagreement, suggesting that they prefer to reflect alone, and it would have been informative to include this as an alternative item. However, this is an aspect which is explored in the interviews.

<table>
<thead>
<tr>
<th></th>
<th>Agree %</th>
<th>Unsure %</th>
<th>Disagree %</th>
</tr>
</thead>
<tbody>
<tr>
<td>I find discussions with peers/colleagues help me to reflect</td>
<td>88</td>
<td>9</td>
<td>3</td>
</tr>
</tbody>
</table>

N = 100

Chapter 3 also discussed accounts which characterise ‘higher’ levels of reflection with consideration of the wider ethical, social and political dimensions of education - the societal domain identified in Chapter 2 (p25) (Smyth, 1989; Gay and Kirkland, 2003; Gelter, 2003; Brockbank and McGill, 1998). However studies that have looked at the application of levels of reflection in practice have found greater use of the lower levels
One of the questionnaire items asked whether respondents found their reflection led them to think about wider educational issues.

Table 5.8. Reflection in the societal domain

<table>
<thead>
<tr>
<th></th>
<th>Agree %</th>
<th>Unsure %</th>
<th>Disagree %</th>
</tr>
</thead>
<tbody>
<tr>
<td>I find reflection leads me to think about wider educational issues</td>
<td>48</td>
<td>41</td>
<td>11</td>
</tr>
</tbody>
</table>

As Table 5.8 shows, nearly half (48%) indicate agreement with the statement 'I find reflection leads me to think about wider educational issues', suggesting they are accessing the higher levels of reflection outlined by van Manen (1977) and Jay and Johnson (2002). Though nearly as many (41%) are unsure whether reflection fulfils this function and 11% express disagreement with the statement, suggesting that it doesn't for over half (52%) of the sample. So, while there is evidence that some are looking beyond their immediate practice context, it is not generally the case. This is explored further in the interviews – see Chapter 7 (p190-195). This may well be because their own practice is their immediate concern and as they become more secure in their practice they may be able to think about wider issues (Richardson and Maltby, 1995; Ward and McCotter, 2004). It would be useful to sample students near the end of the course and practicing teachers to explore this further. This also indicates individual differences in engagement with reflection, as noted in Ch3, p51-52, and relates to the aim of the study (p8).
4. **Views on the role of the reflective journal**

Reflective logs or journals are commonly used to promote reflection and there is evidence that journal writing does support and develop reflection (Richardson and Maltby, 1995; Bain et al, 2002). Though Mueller (2003) found that trainee teachers were unfamiliar with the process of reflective writing and consequently were uncertain about what to write and how they should record their learning.

The questionnaire responses presented in Table 5.9 show that 79% are in agreement that keeping a reflective journal does help them to engage with reflection, in line with views in the literature on the value of writing (Bolton, 2001; 2005) and journal keeping (Richardson and Maltby, 1995; Bain et al, 2002). Though 11% indicate disagreement with the statement that keeping a journal helps and 10% indicate they are unsure, so around a fifth have some doubts about its use, and these would be potential interviewees. Table 5.9 also shows that 81% of the respondents indicated their agreement that keeping a reflective journal will help them to develop their teaching, with only 4% indicating disagreement with the statement, though 15% indicate they are unsure, so again around a fifth of the sample express some uncertainty so would be potential interviewees. However, as keeping a journal is a course requirement these responses may reflect a social desirability component (Oppenheim, 1992).
Table 5.9. The role of the journal

<table>
<thead>
<tr>
<th></th>
<th>Agree %</th>
<th>Unsure %</th>
<th>Disagree %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Keeping a journal helps me to engage in reflection</td>
<td>79</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>Keeping a reflective journal will help me to develop my teaching</td>
<td>81</td>
<td>15</td>
<td>4</td>
</tr>
<tr>
<td>I find journal writing difficult</td>
<td>33</td>
<td>13</td>
<td>54</td>
</tr>
<tr>
<td>I think writing a journal is a waste of my time</td>
<td>7</td>
<td>17</td>
<td>76</td>
</tr>
</tbody>
</table>

N = 100

Although the benefits of keeping a journal are generally recognised, keeping one is not entirely a positive experience, Table 5.9 shows a third of the respondents (33%), indicated their agreement with the statement ‘I find journal writing difficult’ and a further 13% express uncertainty. So although 54% express disagreement with the statement, nearly half the sample (46%) are not prepared to refute the statement. This indicates a potential area of difficulty with reflection worthy of further investigation. Despite this, Table 5.9 shows that over three quarters (76%), expressed disagreement with the statement ‘I think writing a journal is a waste of my time’. Only a few (7%) indicated agreement that it is a waste of their time, though a further 17% were unsure if the time spent was wasted or not. These latter responses were used to indicate potential interviewees.

These four items indicate several areas for exploration through the interviews and also indicated potential interviewees. The time factor, noted earlier in relation to reflection, and in the LSDA (2003) study,
recurs here, and throughout the interview responses, with most interviewees commenting on the time required to keep a journal and the tendency not to write when under pressure. Furthermore, for a substantial proportion, journal writing may not represent the most effective vehicle for promoting reflection and alternatives would be worth exploring. There are likely to be a variety of reasons for experiencing difficulties, and the interviews explore these. For some it derives from specific causes, such as dyslexia or physical disability, others express difficulty with writing in general or uncertainty about whether they are doing it right, as Loughran, (1996) and Bolton (2001) report.

**Summary of the rating scale items**

The rating scale items sampled a range of aspects of the trainees’ experience of reflection. The responses indicate that the majority of the respondents have a clear understanding of reflection and most value it, although it doesn’t come naturally to all and over half acknowledge difficulty in finding time to reflect. The responses also show that the majority of trainees feel they know how to apply reflection and how it might help them to develop their practice and refine their teaching skills. In terms of personal or social engagement with the process of reflection, most indicate that discussion with peers/colleagues helps them to reflect, with very few indicating that they prefer to reflect alone. However, less than half feel that reflection leads them to think about educational issues beyond their own practice. Keeping a reflective journal is also generally
positively viewed, with the majority indicating that it helps them to engage with reflection and will help them to develop their teaching, though around a fifth are less sure of this. Nearly half indicate that they find journal writing difficult, although despite this, the majority do not consider it a waste of time. Although the responses show that the majority are positive about reflection and the journal, a substantial minority indicate that their experience is less positive, and journal writing in particular seems to represent an area of difficulty. These items were effective in providing a general overview of trainee teachers’ experience of reflection and indicating areas to explore in more depth through interviews. Where respondents expressed negative views or uncertainty about aspects of reflection these were used to identify potential individuals for interview, although in many cases such individuals either preferred to remain anonymous or indicated that they were not prepared to be interviewed. The rating scale items thus provide evidence of several aspects which relate to the main research question of why some individuals experience difficulty with reflection.

The information gathering items

As outlined in Chapter 4 (p86-8), 127 individuals, from the intake to the Cert Ed/PGCE programme between April 2005 and March 2006, completed the information gathering items. Examples of responses to each item are presented, in view of the sample size respondents are identified by number. Similar responses were also grouped into
categories to summarise the data and give an indication of the frequency of the different types of responses (see p89-90). As noted in Chapter 4 (p83), respondents were not limited to one response and some gave several. The examples below, taken from two individuals’ responses to the same question, illustrate different levels of responding, respondent 074 gave one response, while respondent 076 gave five responses. Where percentages are given, these represent the proportion of individuals giving a particular type of response out of the whole sample of 127, so the number of responses across the categories may not total 127. This also means that the views of the more prolific individuals are over-represented in the results, eg. sample responses to the question ‘why do you think you are being asked to keep a reflective journal?’:

To improve my teaching practice (Respondent 074)

To help identify strengths and areas for development as a practitioner
To show development
To develop skills of reflection on and in practice
To develop a good system for use later in careers
To learn how to learn (Respondent 076)

There were six information gathering items, asking about prior experience of reflection, reasons for keeping a reflective journal and the experience of both (see Appendix 3). The questionnaire was administered in the first term of the Cert Ed/PGCE course. For many respondents this proved to be too early for them to give detailed responses about their experiences of reflection and keeping a reflective journal whilst on the course, although this hadn’t been apparent in the pilot work. Many left one or both of
these blank, or referred to responses to preceding questions, others, like Respondent 039 below, indicated their lack of experience:

'not very much experience yet'  Respondent 039

Since the questions didn't specify experience of reflection/reflective journal whilst on the course, it is also possible, given the high percentage of students with prior experience, that those who did respond did so on the basis of their previous experiences. Therefore, the final two questions have not been included in this section, so results are presented from four information gathering items.

Question 1. Do you have any previous experience of using reflection or keeping a reflective journal? (if yes, please give details)

Kelly's (1966) Personal Construct Theory suggests that individuals develop their own ways of interpreting their experience. Boud et al (1985b) consider individuals' prior experience to influence their approach to reflection, so their conceptions of the reflective process may be shaped by previous encounters with reflection. Therefore it may be helpful to know about trainee teachers' prior experience of reflection, to address their understanding, in accordance with the study aim outlined on p8.

<table>
<thead>
<tr>
<th>Prior experience of reflection/reflective journal</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior experience</td>
<td>N</td>
</tr>
<tr>
<td>63</td>
<td>50</td>
</tr>
</tbody>
</table>

N=127
Half the questionnaire sample said they had prior experience of reflection or keeping a journal, half did not (see Table 5.10). There were a variety of other forms of experience, both informal, as respondent 001:

'refection, yes – I’ve always analysed my performance and tried to improve, but not in a formal way like a journal'

(Respondent 001)

and formal, such as in art, media or youth work, as typified by respondents 038 and 090.

'I’ve had to keep journals during my various media course[s] .... where I was required to show my gradual learning'

(Respondent 038)

'Yes, it is encouraged in working with young people/youth service'

(Respondent 090)

Teaching and nursing/medicine formed two clearly identifiable spheres of prior experience of reflection. For nine respondents (7% - see Table 5.10a in Appendix 13) their experience of reflection was associated with education, either informally from prior experience of teaching, or more formally as part of a teaching related course such as the City & Guilds 7307, Further and Adult Education Teaching Certificate*, where keeping a reflective journal was required. Most, like Respondents 049 and 055, just provided factual information about what they had done:

'I have studied on the 7307 course and completed a reflective journal each week'

(Respondent 049)

'notes after lessons, what went well, badly etc.' (Respondent 055)

though a few included some comment (eg. respondent 110):

*The City & Guilds 7307 course provided an alternative qualification route to the Cert Ed/PGCE. Completion of 7307 Stages 1 and 2 gave advanced standing into Year 2 of the Cert Ed. Programme.
'I kept one on my 7307 course – but did not find it very easy – largely because of the time factor' (Respondent 110)

A further ten respondents (8% - see Table 5.10a in Appendix 13) have experience of using reflection in nursing/medicine, again several referred to keeping a reflective diary as part of nurse training:

'Yes, we were required to keep a reflective journal as part of my nursing and midwifery course' (Respondent 031)

Approximately a third of the sample, forty-four individuals, (35% - see Table 5.10a in Appendix 13) report prior experience of reflection across a variety of other contexts, such as youth work, social work and police training, as the following quotes indicate:

'Evaluation of coaching plans in past work and voluntary roles' (Respondent 022)

'Yes, 'probationer development portfolio' for my day job' (Respondent 002)

As well as in studying/practising art:

'Yes, documenting in sketchbooks both visual and written information relating to my own development' (Respondent 109)

The responses to this question provide valuable background information regarding trainees’ understanding of reflection, in accordance with the aim outlined on p8. As Table 5.10 shows, a substantial proportion (50%) come to the Cert Ed/ PGCE course with prior experience, suggesting they will have preconceived ideas about what reflection is and what they should be recording in their journals. However, as the literature shows, reflection can be defined and used in different ways (LSDA, 2003), so there is no guarantee that trainees’ prior experience will match what they
are required to do for this course (Mueller, 2003). Therefore guidance will be necessary at the start of the course to enable trainees to review their existing conceptions and either confirm their understanding or indicate where modification of their approach might be required. Half the sample reported no prior experience of reflection, and trainees like these are likely to need clear guidance about the nature and functions of reflection and support in engaging with the process to feel confident that they are ‘doing it right’ (Loughran, 1996; Bolton, 2001).

Question 2. Why do you think you are being asked to keep a reflective journal?

This question aimed to probe respondents’ awareness of the purposes of keeping a reflective journal as this was a potential area of difficulty noted in relation the study aim on p8. They would have received explanations for this at interview, during class sessions and in the course handbook. Therefore, they should be well versed in reasons why they were asked to keep a journal. However, this question still yielded quite a range of responses, as Tables 5.11 and 5.12 show, suggesting that further support and guidance may be necessary.

As Table 5.11 shows, nearly half the questionnaire sample (60 individuals: 47%) referred to improving practice as a reason for keeping a journal.
The view that keeping a journal will result in improved practice is evident from Respondents 018 and 099 below, although there is no indication of how this will take place:

'So that we know what we have done right/wrong and can plan to improve in future'  
(Respondent 018)

'To be able to improve or 'fine tune' over time'  
(Respondent 099)

<table>
<thead>
<tr>
<th>Reason</th>
<th>N.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practice based functions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improve practice</td>
<td>60</td>
<td>47</td>
</tr>
<tr>
<td>Analyse experience</td>
<td>30</td>
<td>24</td>
</tr>
<tr>
<td>Promote reflection</td>
<td>30</td>
<td>24</td>
</tr>
<tr>
<td>Learn from experience</td>
<td>25</td>
<td>20</td>
</tr>
<tr>
<td>Help plan future practice</td>
<td>8</td>
<td>6</td>
</tr>
</tbody>
</table>

Further details of how keeping a journal might help to improve practice are expressed by Respondents 046 and 077:

'If you reflect on your practice properly, it is hoped that you will understand more about how and why you react as you do and that you will learn and develop and improve'  
(Respondent 046)

'as a constructive tool so I can look back and learn from mistakes and experiences in order to improve my teaching ability'  
(Respondent 077)

The reference to the journal as a 'constructive tool' by respondent 077 appears to relate to its positive, developmental function, as in 'constructive criticism' rather than a metacognitive evaluation of reflection as a 'reconstructive process' as noted by Newell (1992, p1327, see Chapter 3, p33 and p50).
Other individuals however, clearly related the role of the journal to analysing and evaluating their experience. As Table 8.11 shows approximately a quarter of the questionnaire sample (30 individuals: 24%) referred to the analysis of experience as a reason for keeping a journal. Most related this to analysing events or their teaching (such as Respondents 034 and 111below):

‘By reflecting on events you can analyse them, take out good and bad and learn’
(Respondent 034)

‘It is an opportunity to consider your teaching session and analyse it’
(Respondent 111)

While a few, such as Respondent 023, referred to self analysis:

‘Helps you to analyse yourself’
(Respondent 023)

There was little evidence of the journal providing an opportunity to bring together theory and practice – praxis (see Respondent 043 below). Although this may be due to the questionnaire format, which didn’t explicitly ask about bringing the two together, it is an area previously identified as problematic (LSDA, 2003). Again, this may be something which could be addressed at the start of the course.

‘To ensure that I take a critical view of my teaching experience and build on the new knowledge gained through the PGCE course’
(Respondent 043)

Approximately a quarter of the questionnaire sample (30 individuals: 24%) explicitly referred to the role of the journal as being to promote reflection or to help them to develop as reflective practitioners – as Respondent 100:

‘to get us into the habit of being a ‘reflective practitioner’
(Respondent 100)
This is in line with Boud et al's (1985b) view that writing can facilitate the process of returning to experience in order that reflection may take place. Some expressed this fairly simplistically in relation to their practice, see Respondents 015 and 125 below.

'reflect on what went well – what didn't' (Respondent 015)
'To think about how we are doing' (Respondent 125)

Others linked the reflection to change and development, such as Respondents 063 and 097:

'to reflect on practice which can help to formulate change'
(Respondent 063)

'organise my thoughts and allow myself to revisit thoughts and memories - in order to move forward and make changes'
(Respondent 097)

A few, such as Respondent 097 above, displayed some metacognitive awareness of the processes involved, which Boyd and Fales (1983) suggest may enhance reflection. This is also suggested by Respondent 026, but most articulately expressed by Respondent 054, below:

'in order for me to gain self awareness' (Respondent 026)

'to provide a focus for reflecting on practice and formalise the process – if it's simply left to thinking informally you can end up either a) not doing it, or b) not thinking through as thoroughly'
(Respondent 054)

There was also some recognition of Schön's processes of reflection-in-action and on-action indicated by Respondent 076:

'To develop skills of reflection on and in practice' (Respondent 076)

A fifth of the questionnaire sample (25 individuals: 20% - see Table 5.11 above) mentioned learning from experience as a reason for keeping a
reflective journal, again this was often linked to development, as noted by Respondents 075 and 093 below.

'This is an opportunity to learn from experience and develop my skills'  (Respondent 075)

'To learn from our mistakes and successes'  (Respondent 093)

Closely related to the expressed function of the reflective journal to improve practice was the view that the journal provided a means to monitor progress and show development during the course, as Table 5.12 shows.

<table>
<thead>
<tr>
<th>Reason</th>
<th>N.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course related Functions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monitor progress</td>
<td>30</td>
<td>24</td>
</tr>
<tr>
<td>Provide evidence of practice</td>
<td>11</td>
<td>9</td>
</tr>
<tr>
<td>Passive function</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provide record of events</td>
<td>18</td>
<td>14</td>
</tr>
</tbody>
</table>

N=127

This view was expressed by approximately a quarter of the sample (30 individuals: 24%). The link to improving performance is apparent, though the role of the journal seems less explicitly involved in promoting improvement here, but rather as a means of showing that improvement was taking place, as noted by Respondent 118:

'To monitor my progress as a teacher'  (Respondent 118)
Some, such as Respondent 124, referred explicitly to developments in their teaching, others to wider personal development, such as Respondent 110 below.

'To track our change in thinking and development of our teaching skills'  
(Respondent 124)

'In order to monitor changes in attitude and in your personal approach to teaching'  
(Respondent 110)

There was evidence amongst the responses of the dual roles of the journal in providing both a means of external monitoring and the recording of personal development. Respondents 029 and 069, below, identify the general monitoring of development for the purposes of the course:

'To have some material to measure development of teaching skills'  
(Respondent 029)

'In order to track our progress'  
(Respondent 069)

While its role in recording personal development, is identified by Respondents 062 and 089 below:

'To record my self development'  
(Respondent 062)

'To enable us to see where we are starting from and progressing to'  
(Respondent 089)

The subtle interplay between the external monitoring and personal functions, is made explicit by Respondent 080 below:

'So (you – crossed out) I can keep a record of my progress, Also to allow me to look back to see how I have improved'  
(Respondent 080)

This tension is perhaps something that needs to be more clearly addressed at the outset of the course. The journal does provide written evidence of reflection and development, which will be required for assessment purposes and by external agencies such as LLUK and Ofsted. However, it
is also intended to support the development of reflection, so further clarification of its purpose may be beneficial.

The questionnaire responses also showed that there are individuals who focus more on the journal as a course requirement, rather than its developmental potential, such as Respondent 101 below:

'SCourse requirement' (Respondent 101)

Some may see the journal as another hoop to jump through to achieve the qualification, as reported by Sumsion (2000). Certainly it is viewed very mechanistically by some, such as Respondents 032 and 064 below:

'To refer to for assignments etc.' (Respondent 032)

'In order that I can use it as a source of information when writing assignments' (Respondent 064)

These responses may indicate a lack of an appreciation of the purpose of the journal, but may also represent the resentment felt by some individuals about having to write something which they either didn’t see the point of or, in some cases, didn’t find helpful.

In addition, as Table 5.12 shows, a few of the questionnaire respondents (18 individuals: 14%) seemed to see the journal purely as a record of events which might otherwise be forgotten, as expressed by Respondents 097 and 114 below:

'To record important things that have happened' (Respondent 097)

'To keep track of what you have done' (Respondent 114)

Or to provide evidence that course requirements are being met:
'Written proof of teaching experience’  (Respondent 111)

One (Respondent 027) referred to the cathartic value of journal writing:

'To get off chest’  (Respondent 027)

However, a few, such as Respondents 088 and 076 below, did indicate awareness of the longer term role of the journal.

'It really works: the trick is finding the time to continue to do it once formal learning has ceased!’ (Respondent 088)

'To develop a good system for use later in careers’  (Respondent 076)

The responses to this question provide useful insights into the trainees’ perceptions of the role of the journal, noted as a potential area of difficulty in relation to the study aim on p8. It would appear that while the majority of the trainees see the role of the journal as positive, supporting their development, particularly with their practice, some are less convinced of its value. The perceived function of the journal in providing ‘evidence’, whether of teaching or reflection, and its status as a course requirement appear to define its role for some trainees. Therefore it would seem that most trainees would benefit from time spent discussing the role of the journal, particularly in relation to facilitating reflection. Some might also benefit from discussion about alternatives to journal keeping for supporting reflection.

Question 3. Do you think keeping a journal will help you develop your teaching?

This question aimed to explore the respondents’ personal view of using a journal, rather than the more general rationale they should be familiar
with from the course. Although it provided further information about the trainees' perceptions of the role of the journal, it wasn't very effective for selecting individuals for interview, since, as Table 5.13 shows, the majority of individuals answered that they thought keeping a reflective journal would help their teaching.

### Table 5.13. Will keeping a journal help develop teaching?

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>82</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>N=127</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The responses undoubtedly reflect 'social desirability' (Oppenheim, 1992), as the reflective journal was a requirement for the course, so individuals may have responded as they felt they should. Very few individuals were prepared to say they felt reflection/keeping a reflective journal was not helpful and most of those either completed the questionnaire anonymously or indicated that they did not wish to be interviewed.

Of those selected for interview, 73% responded 'yes' to this question, although the interview content reveals that their views are often more complex than a simple Yes/No question can convey. This shows the value of qualitative, open-ended questioning for capturing the richness of experience.
Question 3 (a). How might it (keeping a reflective journal) help?

This question aimed to probe more deeply into the role of the journal. To some extent it was successful, but some individuals largely repeated their responses to the second question, a few even referred to the previous question, as Respondent 006:

'as above' (Respondent 006)

This indicates that, despite the pilot trials, the question didn’t fully achieve its intended function, and a questionnaire gives no opportunity to follow this up, though fortunately the interviews could (see Ch7). As Table 5.14 shows, the most common response to this question centred around the journal providing a means of reviewing practice and building on previous experiences.

Table 5.14. How keeping a journal might help

<table>
<thead>
<tr>
<th></th>
<th>n.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review practice</td>
<td>46</td>
<td>36</td>
</tr>
<tr>
<td>Promote reflection</td>
<td>20</td>
<td>16</td>
</tr>
<tr>
<td>Show progress</td>
<td>18</td>
<td>14</td>
</tr>
<tr>
<td>Show strengths and weaknesses</td>
<td>14</td>
<td>11</td>
</tr>
<tr>
<td>Problem solving</td>
<td>13</td>
<td>10</td>
</tr>
</tbody>
</table>

N=127

Just over a third (36%) gave responses referring to reviewing practice in some way, as expressed by Respondents 011 and 077:

'Makes me look back at what I have done and is a good record to refer back to' (Respondent 011)
'I can look at what I have done, how things have worked/not worked and build on my experiences in a positive and constructive way'  (Respondent 077).

This value of the journal is particularly eloquently expressed by Respondent 097:

'If I wasn't keeping a journal I would probably go blindly on without stopping to think about my practice and things that have happened. If I don't stop to think about them I wouldn't have the opportunity to make constructive plans for improvements'  (Respondent 097)

Some (16%), such as Respondent 020, directly mentioned that the journal promoted reflection.

'It helps a great deal. I organise my thoughts and reflect on how I am doing from week to week'  (Respondent 020)

While others, such as Respondents 053 and 061, suggested it provided a means of reviewing strengths and weaknesses in practice (11%):

'Maybe see where I went wrong and could improve on certain things, but again see where my strengths lie’  (Respondent 053)

'Let me reflect on strengths and weaknesses and improve teaching practice’  (Respondent 061)

or, like Respondent 063, saw it as a way of addressing problems (10%):

'It can trigger new ideas and problem solving’  (Respondent 063)

There was some evidence of metacognitive awareness, with recognition of the value of the writing process in extending thinking, as noted by Respondent 080:

'The very act of writing something down allows you to rationalise and see things more clearly'.  (Respondent 080)

And also some references to the role of writing in making links with theory, as noted by Respondent 065:
'The 'act' of writing it encourages me to link 'theory'’
(Respondent 065)

Awareness of the limitations of memory, was also evident, with the
journal providing a source to refer back to, as expressed by Respondent
102 and 049 below:

'It's useful to look back at how things were dealt with
previously, what worked, what didn't, how you felt about
different strategies and approaches. You think you remember
but memory is an odd thing. You can also see progression which
helps'. (Respondent 102)

'To record it, then read and reflect on it, I find is an extremely
logical way of progressing. To try and remember day to day
incidences is impossible to do’ (Respondent 049)

While most referred to the positive role of the journal some, such as
Respondents 056 and 098, also raised their doubts about its value.

'I don't think it will be of great benefit personally. I tend to
mentally reflect without having to write it down’
(Respondent 056)

'I also feel that it can lead to overthinking, which I find difficult
to deal with and can lower self esteem, confidence’
(Respondent 098)

The latter view was also expressed by a few in relation to reflection per
se, not just keeping a journal and these views were used to identify
individuals for interview.

So views on the role of the journal are mixed. The majority feel it will
help them to develop their teaching, largely through reviewing practice.
Relatively few (16%) explicitly stated it promoted reflection.
Reflection on intrapersonal, interpersonal and societal contexts

The responses to the information gathering items were also analysed in terms of their content, using the three domains – intrapersonal, interpersonal and societal, identified in Chapter 2 (p25-26). For the purposes of this analysis intrapersonal was taken as referring to aspects of the individual’s experience and behaviour; interpersonal as the interactions between the individual and others, such as learners and colleagues, including the teaching context and societal as references to the wider context of education, national organisations and policy.

Intrapersonal

There was a strong focus on intrapersonal aspects, with the majority (87%) making some reference to personal experience and actions. Some made general references such as already seen from Respondent 075 (see p123) and others:

- In order to learn from my experiences (Respondent 045)
- To reflect on previous experiences (Respondent 069)

Some were more specific about aspects they might learn from, though there was awareness that this often led to a focus on things which didn’t go well:

- To learn from bad and good experiences (Respondent 006)
- To enable us to learn from mistakes! (Respondent 045)
- My reflection is normally about negative experiences or those experiences I have found challenging (Respondent 094)
So this accords well with Boud et al's (1985b) model, with returning to experience to review behaviour and feelings and Kolb's (1984) reflective observation stage.

The role of reflection in thinking things through was also mentioned:

To make you think about what you have done (Respondent 028)

Make you think of changes (Respondent 084)

While others were more specific, referring to analysis and problem solving as already seen with Respondents 034 and 111 (p121) and others:

Analyse your behaviour and prepare for situations (Respondent 059)

Analysing problems, breaking things down (Respondent 103)

These responses suggest the trainees are using reflection as a means to help them to develop, with their practice as the primary focus, in accordance with Ward and McCotter (2004).

Some mentioned also mentioned the role of reflection in reviewing feelings, giving clear support for Boud et al's (1985b) model, but there were also references to underlying attitudes and perhaps values, as well as actions and events:

Look back on our thoughts and feelings (Respondent 100)

Look back and see if your outlook and feelings have changed (Respondent 080)

In order to monitor changes in attitudes and personal approach to teaching (Respondent 110)

Others, such as Respondents 009 and 026 below, show awareness of metacognitive functions - as already evidenced by Respondents 097 (p122) and 020 (p129), who refer to reflection helping to organise their
thoughts and Respondent 080 (p129) who discusses the role of writing in helping to clarify thinking. It may be that this will enhance their use of reflection, as suggested by Boyd and Fales (1983).

*Reflection helps clarification of the mind* (Respondent 009)

*Helps me gather my thoughts and prepare myself mentally* (Respondent 026)

Some trainees also indicated awareness of areas of difficulty, in particular the disjunction between thoughts and words, noted by McMahon (1997), as they transfer their reflections from the medium of private thought into the written word:

*Sometimes I find it quite hard finding the appropriate language to describe my thoughts or situations* (Respondent 111)

*I can reflect in my head but I am finding it hard to put it on paper* (Respondent 119)

So there is clear evidence of reflection in the intrapersonal domain, with a focus on personal experience and behaviour as well as feelings, aimed at improving future practice.

### Interpersonal

Most also referred to interpersonal aspects, usually with reference to their teaching context, as Respondents 004 and 045 below, evoking Brookfield's (1995) critical lenses.

*To see your teaching as a 3rd person* (Respondent 004)

*To take a critical look at my practice* (Respondent 045)

*Making me see teaching in different perspectives* (Respondent 84)

While others made specific reference to their learners:
It helps me and the person who's learning improve in the future
(Respondent 030)

I have several ways of teaching and adapt to the class members
(Respondent 049)

To contemplate the responses from my students when I feel they are
achieving my objectives
(Respondent 110)

And to their interactions with other people:

To encourage me to think about my relationships with others
(Respondent 025)

At the moment I am learning more from others than from myself,
observing other teaching techniques
(Respondent 049)

Chatting to the learner to get feedback helps too and it leaves things
relaxed too
(Respondent 060)

So there is also evidence from the information gathering items of
reflection in interpersonal domains noted in Chapter 2, with reflection on
the teaching context and relationships with learners and others.

Societal

The information gathering items did not ask about reflection on wider
aspects of education, although as noted earlier there was a specific
question in the rating scale items, where 48% agreed that reflection led
them to think of wider issues (see Table 5.8, p110). Only one individual
made any reference to wider factors, the societal domain in responding to
the information gathering items:

Improve teaching practice and understanding of educational contexts
(Respondent 054)
This suggests that wider issues, the content of the ‘higher’ levels of reflection discussed in Chapter 3 (see p44-45) do not feature strongly in these trainees’ reflection. However this analysis does show the application of the domains identified in Chapter 2 to the content of trainees’ reflection and these are used in the model presented in Chapter 8.

Summary of the questionnaire findings

The questionnaire responses provide a broad base of information about trainee teachers’ experience of reflection in relation to the aim and purpose of the study, as outlined on p8. The responses indicate that the majority of trainees think they have a clear understanding of reflection and how they should use it, seeing it as having a valuable role in helping them to develop their practice. Although around 30% indicate some uncertainty with the concept, approximately a fifth express some doubts about its application. Finding time to reflect is also an issue for over half of the sample. There is some evidence that individuals are accessing so called ‘higher’ levels of reflection, as outlined by van Manen (1977) and Jay and Johnson (2002) although the majority are not looking beyond their own practice, in accordance with findings such as Ward and McCotter (2004). Most express agreement that keeping a journal supports their reflection, although a substantial minority are prepared to admit to difficulties with journal writing, suggesting that they might find alternative techniques, such as peer or mentor discussion (McMahon, 1997; Harrison et al, 2005) or online forums (Reiman, 1999) more
beneficial. The experience of difficulties in engaging with reflection is an important area to explore, if trainee teachers are to be supported in their development as reflective practitioners. The questionnaire responses therefore also provide a basis for selecting individuals to interview about their experience of reflection. The questionnaire analysis also shows the application of the domains identified in Chapter 2 to the content of trainees' reflection. These will be developed further in relation to the interview data and used in the development of a model to conceptualise the components of reflection in Chapter 8. The following two chapters present findings from interviews with a sample of fifteen trainee teachers.
Chapter 6

Interview findings: the role of reflection

As outlined in Chapter 4 (p92), fifteen trainee teachers were selected for interview on the basis of their questionnaire responses, following the participant selection model of the explanatory mixed methods design outlined by Creswell and Plano Clark (2007), as discussed in Chapter 4 (p69). The semi-structured interviews covered key topics identified from previous research and the questionnaire responses. The interview transcripts were analysed to identify and code recurring themes, as outlined in Chapter 4 (p95-6).

The findings presented in this chapter address the study aim outlined in Chapter 1 (p8) with regard to the interviewees’ understanding of reflection and its role in relation to their practice. The chapter considers the process and content of reflection, to explore topics addressed in Chapter 5 in more depth, with the additions of further areas arising from the interviews. It presents qualitative data on the interviewees’ experience and perceptions of reflection, their views of its role in relation to their practice and their views of the learning and teaching process. In recognition of the smaller sample size and the qualitative nature of the data, pseudonyms are used to refer to individuals, rather than respondent numbers. The interviewees’ metacognitive awareness is apparent throughout these sections and the evidence for this reviewed, followed by evidence of the interviewees’ awareness of individual differences in the capacity for reflection. The chapter concludes by presenting some
limitations of reflection identified by the interviewees. The interviewees' views are related to theories, models and findings from the literature on reflective practice, as well as to the questionnaire data, to gain a better understanding of trainee teachers' experience.

The following chapter presents findings relating to the interviewees' use of reflective journals. It considers individual preferences in approaches to reflection, with reference to a personal-social dimension, to further understanding of the interviewees' experience and address ways in which reflective practice may be supported.

Experience of reflection

As Table 6.1 shows, the interview sample reflected the proportions of the questionnaire sample, with seven (47%) saying they had prior experience of reflection while eight claimed no prior experience.

<table>
<thead>
<tr>
<th>Prior experience</th>
<th>No prior experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>7</td>
<td>47</td>
</tr>
<tr>
<td>8</td>
<td>53</td>
</tr>
</tbody>
</table>

N=15

The interviewees' prior experience of reflection includes key areas identified in the questionnaire sample (see Table 5.10a in Appendix 13),
with one in teaching, one in nursing, two as artists, such as Sophie describes:

'Yes, I have taken part in Artists' residencies where a reflective journal was required' (Sophie)

Two in youth work, as Andrew explains:

'Yes, when working as a youth worker we wrote reports after every session, reflected on session and planned for future action' (Andrew)

One had experience through social work/research, while eight had no prior experience of reflection.

It is possible that this question on the questionnaire may have been interpreted as referring to experience of reflection as a formal process, since all but three of the interviewees (who claimed no prior experience of reflection on the questionnaire) considered themselves to be natural reflectors, as expressed by Rosie and Mary below:

'I'm a thinker anyway' (Rosie)

'I'm a reflector as a person' (Mary)

Although in line with Moon’s (2004, p1) view, noted in Chapter 3 (p51), that reflection is something we all do, this was a little unexpected, as five of the interview sample had been selected on the basis of their expressed negativity or uncertainty about reflection and a further five for their expressed difficulties with journal keeping. However, this does convey something of the complexity of engagement with reflection and the differences between questionnaire and interview responses. For several
of the sample the questionnaire responses did not accurately capture the views they expressed in the interview.

Although they had responded ‘No’ on the questionnaire when asked about prior experience of reflection, the process was clearly familiar for some, as apparent from comments such as Martin’s when he says:

‘Yeah, it’s like ‘I do that all the time’’

(Martin)

And Steven who says:

‘Reflecting on where it has not gone as well as it might have done or where I can improve on something comes automatically.’

(Steven)

Steven goes on to explain that although the technical terminology was new, the experience is familiar:

‘it was almost new terminology for me although I realised quite rapidly that it was something I had been doing for a long time’

(Steven)

Similarly Winnie explains:

‘...and I read .... and I thought, I know what this is’

(Winnie).

Others’ responses indicate that prior to the course they had not been aware that this was what they were doing, as expressed by Judy when she says:

‘I did reflect ....But not knowingly’

(Judy).

Of the eight who claimed no prior experience of reflection, the three who didn’t consider they were naturally reflective express some doubts about their reflective abilities. As a newcomer to the process, Julie displays uncertainty about reflection, how much she’s doing and whether she
really is reflecting. She thinks she probably is, but she’s not sure. Her experience of uncertainty is in line with what other authors report (Loughran, 1996; Bolton, 2001, LSDA, 2003; Moon, 2004).

'I don’t think I was reflecting very much .... I suppose whether I could have reflected on those, I think I probably did reflect on those.... You know, I’ll think about things as I’m driving home and... in the evening or something, while I’m cooking and I’ll think right that’s sorted, that’s out the way.....but I wouldn’t necessarily previously have regarded that as reflection. But I realise now that it probably is.' (Julie)

When asked if she was a reflective person, Ruth is quite clear that she had not been before coming on the course.

'Not at all actually, seriously not' (Ruth)

However she goes on to explore what has changed for her and it is apparent that she can take a metacognitive view of her own thinking. Other interviewees also show evidence of developing metacognitive awareness, which is discussed later in this chapter (see p153-7).

Ruth’s comments about consciously using reflection evoke Dewey’s (1910; 1933) view, of reflection as a conscious process:

'Oh I’d give things a second thought in that, you know I’d wake up and think twice ....I think it’s just deeper thought and the fact that I do think about it more consciously' (Ruth)

Although reflection as a conscious process is supported by Sandie:

'I am consciously reflecting more now than I ever did' (Sandie)

She also refers to it as something you do ‘without thinking’, suggesting that it may happen without conscious direction:

'You just do it without thinking .... or you are thinking about it,
but you're not actually conscious while you're doing it, aware that you are reflecting.' (Sandie)

This suggests the process may be spontaneous and not consciously directed, echoing Bolton (2001). A view that is evident from one of the respondents in the LSDA (2003) study, who claimed not to 'consciously' reflect and in Steven’s explicit statement that it is not deliberate:

'Very often I'm doing it as I work .... But it's not a deliberate ongoing process, it's just a coming together of thoughts' (Steven)

Mary too, acknowledges that it happens, but not always as something she is aware of:

'.... it's going on in the back but you don't always take note of it, do you?' (Mary)

Winnie supports the view of reflection as not under conscious direction, but also hints that it may not be a universal process. Individual differences are discussed later in this chapter (see p157-9).

'It's something that you either do unconsciously all the time, or not' (Winnie)

There is also evidence of thinking coming back to problem events which won’t go away until they have been resolved, as Sandie notes:

'.... suddenly your thoughts decide, hello, hello, hello ..' (Sandie)

This is in line with Schön’s (1983) view of reflection arising from uncertainty and Boyd and Fales’ (1983) finding that reflection is often initiated by a sense of inner discomfort, as evidenced in the comments from Steven and Winnie below:

'I know there's this problem and it's registered back there as a problem, but then you're suddenly sat there .... And you go “oh” and it all comes together.' (Steven)

'It's that niggle, that niggle, that's not right .... Something is not quite right here, I'll have to look into it a bit deeper' (Winnie)
In relation to the aim expressed on p8, these views suggest that the interviewees have a clear awareness of their involvement with reflection, both before and during the course and are able to discuss their experiences of the process. Their experience also supports several views expressed in the literature.

The next section looks at perceptions of reflection in more depth and how trainees' experience of the process relates to theoretical models.

**Perceptions of reflection**

It was apparent from the questionnaire data, presented in Chapter 5, that the majority of the trainees (93%) disagreed with the statement that they did not understand what reflection is, although as noted (p103-4) this is reliant on their self reporting. The interviews provided an opportunity to explore this understanding, and the questionnaire findings are upheld, with the interviewees being able to explain what reflection means for them as Derek describes:

> If you want me to sum up reflection, I think it's the ability, I think it's the ability to recognise your strengths and weaknesses' (Derek)

Their views include reference to the objective, analytic nature of reflection, evident in Sophie's comments:

> I think true reflection is about looking at yourself completely objectively, or as objectively as you can .... .... 'It is, you know going over what you've done, or analysing what you've done, the way you've been.' (Sophie)
And the implications for learning and the implementation of change noted by Andrew:

> "When you reflect upon it you think 'I actually have learnt something there'"  
> (Andrew)

These views suggest a focus on the self, one's own behaviour and experience, the intrapersonal domain (see Chapter 3, p25). There is also evidence in the interviewees' accounts of a recursive quality to reflection, as expressed by Winnie:

> "The whole thing has to really go round and round for me"  
> (Winnie)

Similarly Ruth explains her experience saying:

> "It's an ongoing circular process, building upon itself in different ways, interlinking .... there are different stages according to what's going on and, you know, you can't predict them"  
> (Ruth)

This is in line with models such as Kolb's (1984) experiential learning, though there is also support for Boyd and Fales (1983) view of a current flowing back and forth in Nancy's explanation:

> "So, it's that constant forwards and backwards process."  
> (Nancy)

Ruth (above) refers to 'stages' in the process and others, such as Mary, talk of different 'levels' in their reflection:

> "So I reflect on different levels."  
> (Mary)

These responses show metacognitive awareness of the process and relate to views from the literature such as van Manen (1977), Jay and Johnson (2002), l'Anson et al (2003) and Ward and McCotter (2004), as discussed in Chapter 3:

> ".... you'd reflect on it again, on a deeper level, a wider level and from different angles possibly"  
> (Sandie)
Sandie’s comment about different angles evokes Jay and Johnson’s ‘Comparative’ level and perhaps Manouchehri’s (2002) ‘Confronting’ level, where other views are taken into account to deepen understanding of events, from within a constructivist framework (see Chapter 3, p43).

Kelly’s (1966) model of experiential learning, outlined in Chapter 3 (p38-39), includes a pre-action stage of ‘Anticipation’ and this was evident in some interviewees’ thoughts about reflection, such as Andrew’s when he comments:

‘sometimes the reflection can come a little bit earlier than the action occasionally, if you know what I mean’  (Andrew)

And Sandie’s suggestion of ‘pre-empting’ things:

‘So that I can pre-empt things and possibly change things or so that things don’t happen …’  (Sandie)

In relation to the study aim (p8), the interviewees’ responses suggest they have a clear understanding of reflection and are able to use it to review their behaviour and experience with a view to modifying future action. From their views on their experience of reflection, it would seem that an appropriate model to support reflection would represent a recursive or cyclical process, not just looking back on events, but also incorporating a preview stage and some potential to engage at different levels. These might range from a transient, relatively superficial evaluation of events, to a deliberate, reasoned, detailed analysis of the events and the contribution of everybody involved. Chapter 8 will discuss engagement with reflection and offer a model that incorporates these aspects.
The role of reflection

The questionnaire responses, presented in Chapter 5 (p106-7), showed that most (77%) agree they are clear about how to reflect on their practice and how reflection helps them to refine their teaching skills (82%), and disagreed that they didn’t understand how reflection will help them to develop their practice (87%). The role of reflection in developing practice is evident in the interviewees’ responses, such as Andrew below:

‘.... without reflecting on how you’ve taught you keep ... can’t develop, you definitely can’t develop’ (Andrew)

So here the emphasis is shifting beyond the individual to consider the practice context and individual’s behaviour in relation to others, the interpersonal domain (see Chapter 3, p25-6). Julie and Martin consider reflection to be crucial:

‘I think it is very important to be reflective and I think it’s a central part to developing’ (Julie)

‘....reflection however you do it, I think of as vital to developing .... So, you know, I don’t think you can develop without reflecting on things’ (Martin)

And it is seen as essential by Steven:

‘It is a working tool and something I wouldn’t be without’ (Steven)

However, its perceived role in promoting development was also a focus for Julie’s concerns that she wasn’t ‘doing it right’:

‘It took a long time for me to realise that I was doing it and it didn’t matter how...the fact that I wasn’t writing it down, but I was very worried for a long time that I wasn’t doing it right and therefore I wouldn’t be developing. .... but I think it is very important to be reflective and I think it’s a central part to developing’ (Julie)
Closely related to this was a theme of using reflection to improve practice, as already noted in the questionnaire responses, embodied in the comments by Derek, who links development to improving his practice:

'I just don't think you can develop, or I don't think you can improve without having reflective practice.
.... So when it comes to teaching I can see what I've got to do and I want to get it right, so I'm always thinking of ways of improving it.'

(Derek)

And Steven, who links reflection to being 'an effective teacher', suggesting there may be some, less effective teachers, who might not reflect:

'You can't go on delivering the same course with the same holes in week after week, year after year, because if you are an effective teacher you have got to see them, unless you live with your eyes shut'

(Steven)

Similarly Rosie and Winnie are concerned with improving their practice:

'you think about how you could do it better .... how you can deliver it to keep them motivated and interested'

(Rosie)

' thinking about exactly what you could do to make it better'

(Winnie)

Though Sophie also noted its role in ensuring that good practice is maintained:

'It is important that I keep reflecting, because I've got to keep sort of making sure that I'm giving as good teaching as I was,'

(Sophie)

These responses suggest an emphasis on practice, echoing a concern with technical skills reported in the literature (Richardson and Maltby, 1995; Ward and McCotter, 2004; Bolton, 2005). However, there was also evidence of a view that reflection was somehow bound up with being a good teacher in a way which seems to transcend a concern with teaching
skills, suggesting something of the intuitive practitioner (Furlong, 2000; Bolton, 2001), evident in responses such as Ruth:

‘You can learn to be reflective but I think that the people who are great teachers happen to be reflective or, or perhaps learn to be reflective,’ (Ruth)

Here again the interviews provide evidence that the trainees have a clear understanding of the process of reflection and its role in developing their practice, in accordance with the study aim outlined on p8. Without exception, the interviewees see reflection as central to their practice and to enabling them to develop and improve, rather than stagnating. The focus for their reflection extends from their own behaviour and experience to include others in their practice context, spanning the intrapersonal and interpersonal domains. Their developing practice style relates to their conceptualisation of the process of learning and teaching.

Views of learning and teaching

Sumson (2000) suggested that the implicit model of the learning and teaching process held by trainee teachers may influence their engagement with reflection. Therefore, the interviewees were asked how they thought learning takes place and how they saw their role as teachers. Three main themes emerged: teaching and learning as the transmission of knowledge; teaching as ‘facilitating’ the learning process; learning as the individual’s ‘making sense’ of material for themselves. Further themes suggest learning as a holistic process and as occurring incidentally. Only Steven clearly holds a ‘transmission’ model of learning and teaching:
'My whole thing is about passing on knowledge and information, .... it's getting the maximum number of students to comprehend the maximum amount of material from the course, because it's all about passing knowledge and information to give them an education' (Steven)

Such a view has been suggested by Sumssion (2000) to hinder engagement with reflection, though this would not appear to be the case with Steven, who sees himself as naturally reflective and values reflection, but not journal writing.

Julie similarly displays elements of a 'transmission' view when she outlines how she sees her role as a teacher:

'Help my students gain information, knowledge that they haven't already got or to build on the knowledge or skills that they've got' (Julie)

She sees imparting knowledge as central to her role, although she balances this with a more learner-centred approach, perhaps in recognition of what she is learning on the course:

'.... some of it is literally dictating the sort of information, it's very factual stuff, but also directing them to books and websites and other ways that they can actually do it themselves .... they're actually kind of feeding stuff back into the group... so it's not all just a one way thing' (Julie)

Julie expresses uncertainty about her capacity for reflection and, like Steven, doesn't find journal writing helpful. She clearly places emphasis on giving knowledge to her learners and it is possible that this may be linked to her capacity for reflection, as identified by Sumssion (2000).

Sumssion notes a related preference for certainties, rather than ambiguity and speculation in her case study of 'Erica'. It is possible that Julie
shares similar features, since she refers to her journal writing as factual and says:

‘A fact is a fact and I write it down and that’s it’. \(\text{Julie}\)

However, she seems to be struggling with reflection, rather than explicitly rejecting it, as evidenced earlier by her concerns that she is really reflecting. Her reference to her journal writing as ‘still very factual’ suggests the potential for change. She perhaps differs from Sumsion’s example in this respect, since she appears to be actively seeking to develop her reflection, rather than rejecting it. Trainees such as Julie might benefit from activities to develop their reflective writing (Loughran, 1996; Moon, 2004; Hughes, 2005).

Others, such as Sophie and Denise, reject the view of learning as the transmission of knowledge, Sophie says:

‘it can’t possibly be knowledge giving.’ \(\text{Sophie}\)

While some, such as Monica and Rosie suggest different approaches to learning and teaching may be appropriate for different contexts. Their comments indicate that while they may consider their role to include the transmission of knowledge, they see it as encompassing more than this. Rosie, below, clearly distinguishes what she sees as different aspects of her role, giving information balanced with a more supportive approach.

‘If it’s a one to one, ... then definitely there to help facilitate them and help them through the learning.... If it's key skills or if it's something like the food hygiene, definitely see me as someone there that’s going to give them new information’ \(\text{Rosie}\)
The interviewees elaborate on their role in different ways. Andrew and Martin, like others, such as Sandie and Ruth, see their role as facilitating the learning process, rather than giving knowledge:

but I do believe in the facilitation. That you’re a facilitator instead of an imparter of knowledge’ (Andrew)

‘I really do think I’m more of a facilitator’ (Sandie)

Mary explains how her practice has developed as she has revised her approach to learning and teaching to move away from a didactic, transmission model, towards a more student-centred, constructivist approach, saying:

‘.... it is actually sinking in how important it is always to keep the students with you and make sure that the learning is going on, and to introduce exercises where they can assimilate what is being imparted and make it their own’ (Mary)

Winnie refers to learners giving concepts meaning, also suggesting a constructivist view:

‘Sometimes you’ve got to give didactic instruction because there’s no way else to do it but as long as it’s balanced with them being able to explore and to make that concept or whatever it is, give it meaning ..’ (Winnie)

Others, like Sophie, also suggest learning is based in the students taking an active role in the process and developing their own understanding.

‘....it really is about the students’ attitude and they need to come in and want to learn and want to develop and do stuff, otherwise, you know it’s not going anywhere.’ (Sophie)

The idea of learners creating their own interpretations and applications of what they are taught is apparent in Nancy’s view:

‘You can teach them the same skill and of the sixteen students there will be sixteen different ways of using it or, you know, developing it into something else, so they’ve got to be able to think for themselves’ (Nancy)
There was also a theme of ‘holistic’ learning, where the process is not just about the subject content, but helping individual learners’ own personal development. This view is apparent in the comments from Sophie and Sandie, who talk about helping individuals to develop and move on, as expressed by Sophie:

‘....that’s something that feels really positive, being able to help people to do their own thing and see them move on’  (Sophie)

Judy and Monica also talk about their role as supporting their learners beyond the confines of the course, as Judy comments:

‘....but also sort of making them people...encouraging them through their, through life...’  (Judy)

Associated with this is a model of ‘incidental’ learning, based in the idea that learning is happening all the time, whether or not something is deliberately being taught, or people are aware of learning taking place, as Martin explains:

‘.... people are always learning even though they don’t, they aren’t necessarily aware that they’re learning something, you know, they are’  (Martin)

Finally, Andrew offers a seed metaphor to illustrate the hidden dimension of the learning process, which may become apparent at some point in the future.

‘..... so when you’re teaching, when you’re, being taught in a classroom situation sometimes that’s just putting seeds in. You can’t see it when you bury a seeds under the ground. You can’t see it. Nothing’s there technically, but there is something there.’  (Andrew)

So, the interviewees display a variety of models of the learning process which they employ in their practice. Most see their role as being multifaceted, drawing on more than one model of learning to inform their
practice. Only Steven appears to hold a transmission model, though he is clearly reflective. Julie and Mary seem to be developing their understanding of the learning process, balancing knowledge giving with more interactive teaching, though while Mary is strongly reflective, Julie is unsure about reflection. There doesn’t seem to be any clear relationship between the models of learning the interviewees use and their engagement with reflection to support Sumsion (2000). However, this may be because the interview sample wasn’t able to capture individuals who were strongly resistant to reflection.

**Metacognitive awareness**

Boyd and Fales (1983) suggest that metacognitive awareness of reflection can enhance reflective learning. The interviewees’ responses all show a level of metacognitive awareness, about their own cognitive functioning and that of others, which provides further insight into their understanding of reflection. This is apparent in their accounts of their own reflective skills, which has enabled them to identify their current and previous use of reflection, as noted earlier and by Derek and Judy below:

‘It makes you realise that you have been doing it in the past, so...but now it’s got a proper name it’s got a theory to it, you know where it’s come from and you know the advantages of being able to do that’

*(Derek)*

‘I mean coming here now and learning about reflection and everything, I worked out that I did reflect during university, and constantly reflect on things’

*(Judy)*
Ruth’s comments indicate that she feels she is able to use reflection more effectively because she now has this greater understanding and can deliberately engage with the process:

‘.... but I now understand the process more, I think that’s what it is, yes that’s what it is. I understand the process and I understand its importance more and therefore I more consciously use it.’ (Ruth)

There is also some evidence in line with Boyd and Fales (1983) that their metacognitive awareness has enabled them to extend the process, as described by Monica who says:

‘It’s a good way in a way because it does make you think, you kind of think ‘Gee, I do do that. Why do I do that? I don’t know why I do that, I’ve always just done it’, you know, so it’s kind of strange now to actually start actually analysing what you do and why you do it’ (Monica)

Andrew too is more aware of his use of reflection, saying:

‘In this course I probably really thought about it a lot more than I’ve ever thought about reflection. I’ve probably reflected a lot, but I haven’t actually analysed, you know, how I go about it and what it actually is and how it really contributes to, to how we move forward as teachers and, obviously, as people.’ (Andrew)

Sophie has clear views on her use of reflection, as she explains:

‘It is, you know going over what you ‘ve done, or analysing what you ‘ve done, the way you’ve been. And I think it’s important to look at things...that don’t necessarily seem important to you’ (Sophie)

Again the interviewees’ metacognitive awareness is apparent as they are able to analyse their mental processes, as illustrated by Martin who says:

‘....then I think reflection at least in part, is kind of like, you modify your, sort of like...your thought processes about things anyway’ (Martin)

Interestingly, as l’Anson et al (2003) report, several interviewees also acknowledge Schōn’s (1983) reflection-in-action/reflection-on-action
distinction, again showing metacognitive awareness of their thinking processes.

'.... you're constantly thinking on the hoof, most of the time'
(Winnie)

'.... instances like, where, in the classroom you've had to reflect on your feet .... I'd go back and possibly revisit it that night'
(Sandie)

Metacognitive is awareness also apparent in the interviewees’ ability to analyse the mental processes they engage in when they reflect and, as noted earlier (p143), to identify stages (Ruth), levels (Mary and Sandie) and sequences or circularity (Winnie, Nancy, Andrew). Several, such as Winnie, Mary, Steven, Andrew and Sophie, are able to talk about their mental processes in some depth. Some refer to their preferences for certain ways of working. Mary notes her fondness for thinking and analysis:

'....I am slow to think. I'm a word person and to think about things, to analyse, to understand, to evaluate, to critique, they are all things that really appeal to me.'
(Mary)

Nancy similarly identifies features of the way her mind works, saying:

'It is how my mind works, I see things and I think .... It is the way I approach things. I dissect everything I see.... It's personal, definitely, cause that's just the way my brain works I suppose'
(Nancy)

Their descriptions almost attribute their cognitive functioning as beyond their control, as evidenced by Sophie who says:

'I have got a short attention span and I do get bored easily.... I've got very active brain, I mean it's always working.'
(Sophie)
Steven suggests his brain has different ways of functioning, scientific and artistic, reminiscent of Claxton’s (1998) ‘Hare brain – tortoise mind’ distinction, and these are useful for different things.

‘I think of it as looking at it with my artistic eye instead of my scientific eye .... Scientific is my norm. Artistic is normally relaxed mode’

(Steven)

He also relates this to practical-theoretical functioning.

‘.... maybe part of me or practical people.... I wonder whether this is the way practical, artistic people use their brains and that's why they are what they are, you know?’

(Steven)

Martin also refers to a scientific way of thinking.

‘coming from a science background, you know, we need to know that what we’re thinking is actually genuine and is valid’

(Martin)

He, and others refer to the way they approach things and what they perceive as their strengths and limitations. Mary makes a distinction between reflectors and reactors, presumably influenced by Kolb’s work (1984), suggesting that as a reflector she is at a disadvantage in her profession, where reactors are preferred.

‘They want people who react react react react and they are very pragmatic and often they are people who don’t spend the time reflecting .... I’m not happy reacting, reacting, reacting, and having to come up with some idea or some suggestion without having engaged my brain’

(Mary)

Martin, like Nancy above, needs to analyse everything.

‘If I’m working with anything I have to know exactly, all the little bits that go to make it up’

(Martin)

While Rosie, like Mary, sees herself as a thinker.

‘I’m a thinker anyway. I chew things over in my head all the time,’

(Rosie)

Denise clearly feels her strength lies in language:

‘....but that’s my thing is words and language and it helps me make
While Julie and Sandie do not:

‘And I’m still very factual and just literally writing, but then I’m not a person of all that many words... A fact is a fact and I write it down and that’s it.’ (Julie)

‘I’d always thought, and it was probably a selfish point of view, that I learn quite visually rather than just text and things’ (Sandie)

Sandie also compares herself with others, saying:

‘I do find I’m slower at learning than a lot of people immediately so I tend to do things more thoroughly, as far as I’m concerned’ (Sandie)

Other interviewees also make comparisons, identifying differences in the way they think and approach things.

‘Not everybody thinks like I do, not everybody can remember things like I do.’ (Martin)

This awareness of their own cognitive functioning enables the interviewees to discuss their experiences of reflection and journal writing in some depth. As already noted, it may also help them to develop their capacity for reflection Boyd and Fales (1983). Their metacognitive awareness also enables them to compare their approach to reflection with that of others.

**Individual differences in reflection**

As well as displaying metacognitive awareness of their own process of reflection several of the interviewees also expressed views indicating an implicit acceptance of individual differences, both in the capacity for reflection and in the ways it might be approached. This is evident in Ruth’s comment, about great teachers ‘happening’ to be reflective and
Steven’s comment about non-reflective teachers (p147), as well as Andrew’s comments, below, about his own reflective capacity.

'I’m a natural analyser of my own life…. So, throughout my life there has been a reflective theme going on.’  (Andrew)

He expands on this later, suggesting he might examine things in more depth than others do, when he mentions a comment made by a friend,

'A friend of mine said to me once “Andy, let’s go up the shallow end”, and he meant that in the psychological sense.’  (Andrew)

Others, such as Winnie and Monica, refer to reflection as something people may have a natural propensity for:

'It’s something that you either do unconsciously all the time, or not’  (Winnie)

'… what kind of person you are…. whether or not you are that kind of reflective person  (Monica)

Monica qualifies her position, suggesting that people can’t be made to reflect if they are unwilling to do so:

‘You can’t force people to sit and reflect about themselves. It doesn’t work that way. They have to want to do it’  (Monica)

Julie refers specifically to teachers, saying:

‘I bet you there’s some teachers that just plod on as they do all the time... Whereas you’ve also got others that are very introspective and reflect on all sorts of stuff.’  (Julie)

However there was also support for the contrasting view expressed by Moon (2004, p1) that ‘we all reflect’.

‘… that’s a natural thing really, I don’t think of that as reflective practice, I think that’s normal’  (Judy)

Andrew though, was less certain.

‘Sometimes I think we all naturally reflect and sometimes I think that, ... well, I thought people were like me when I was a teenager, but they just weren’t like me at all, you know.
Not at all like me and not thinking on the same level’

(Andrew)

So the interviewees indicate awareness of individual differences in reflection. They also show diversity in the extent to which they consider themselves to be reflective and their preferred approach to reflection, suggesting the need for a flexible model to accommodate this diversity in supporting reflection.

Some limitations of reflection

Despite the value the interviewees place on reflection and the way they see it as contributing to their practice, there was also recognition that reflection was not always an easy thing to do.

'It's a very reflective process about yourself and about how you work with other people. How you should have to improve and that's quite hard to do, you know' (Monica)

She notes that despite the benefits, the outcomes could be uncomfortable, saying:

'So I think it's a brilliant thing to do and I think everyone should do it but sometimes it can be quite, quite hard to actually admit to yourself that you could be actually doing a better job' (Monica)

Andrew too acknowledges the outcomes can be unpleasant, when he says:

'And when I make mistakes I go home feeling bad and that's part of reflection as well. If I didn't reflect I wouldn't feel bad when I'm at home.' (Andrew)

These responses evoke Boud et al's (1985a) comments that reflection may not always be pleasant, and possibly link to Pope's (2003) suggestion that changing core constructs may be resisted.
There was also some evidence of a view that reflection might not always
be a good thing, as indicated by Sandie when she says:

‘... sometimes I think I have to shake myself out of it. Because I don’t always think it’s healthy to go back too often and dwell, not necessarily on bad things.’ (Sandie)

Similarly Judy felt it needs to be contained, saying:

‘It’s got to stop somewhere’ (Judy)

Or that it may not hold all the answers:

‘it [reflection] doesn’t mean, it doesn’t mean that you’re going to change your point of view...’ (Sophie)

So, while the interviewees acknowledge the power of reflection for developing practice and bringing about change, there is also a recognition, as expressed by Monica, that it is a tool which needs to be managed if it is to be used effectively:

‘So to get that balance right and to use it in the right way, it’s a very powerful tool to do it right. It’s quite hard I think’ (Monica)

Conclusions

The picture with regard to reflection is far from straightforward. The interviewees do seem to have a clear understanding of the process of reflection and value its role in helping them to develop as teachers and improve their practice, which is in line with the findings of the LSDA study (2003). Their focus is very much on themselves, their own behaviour and feelings, although this does broaden out to consider others within their practice context, locating the content within the intrapersonal and interpersonal domains (see Chapter 2, p25-6 and Chapter 8, p199).

There is some support for ideas from the literature, such as Schön’s
(1983) distinction of reflection-in-action and on-action, with the latter involving a deliberate focus on specific events, as well as reflection arising from situations of uncertainty. There was also some support for ideas of stages in the process, and levels of reflection (van Manen, 1977; Jay and Johnson, 2002). There was no clear evidence of a link between the model of learning held by the individual and engagement with reflection, as suggested by Sumsion (2000). Most see learning as involving some active involvement on the part of the learner and their role as facilitating this process by providing information, supporting learners to find things out for themselves and creating opportunities for learners to explore and discuss their understanding. The interviewees show quite striking metacognitive awareness, both of their reflective processes and other aspects of their functioning with some support for the value of metacognitive awareness (Boyd and Fales, 1983).

This chapter has explored the interviewees' understanding of reflection and its role in relation to their practice. The next chapter will look at how the interviewees engage with reflection, including their use of reflective journals as well as their preferences for reflecting alone, or through discussion with others.
Chapter 7

Interview findings – reflective journals and engagement with reflection

The previous chapter noted the interviewees’ awareness of individual differences in trainee teachers’ engagement with reflection. This chapter will further explore individual differences, looking at the role journal writing plays in reflection, to identify aspects with which individuals experience difficulty, in accordance with the study aim outlined in Chapter 1 (p8). The chapter also explores public-private and personal-social dimensions in engagement with reflection and considers aspects of the content of reflection, resulting in the development of a theoretical representation and a practical model of reflection which are presented in Chapter 8 (p199, 202).

Positive views of the reflective journal

The questionnaire responses indicate that the use of the reflective journal is generally valued to help engage with reflection (79% expressed agreement) and to help develop teaching (81% expressed agreement), or valued for its own sake (see Chapter 5, p.111-12). This was upheld in the interviewee responses, as evidenced in Mary’s comment:

‘And it is rewarding, I love keeping my reflective journal’

(Mary)

Several benefits of keeping a journal are recognised by the interviewees, such as providing a record of events, as noted in the questionnaire responses (p123-4).
‘...at least you’ve got a record ....instead of just remembering’

(Julie)

For some, like Denise below, the process of writing not only preserves the experience and the resultant reflection, when it might otherwise be forgotten, but ensures it is available for future reference, to review progress over time as noted by van Halen-Faber (1997).

‘... but it’s very important, once I’ve thought it through to put something on paper, because it’s no use to me otherwise I just forget what I thought’

(Denise)

As Ruth comments, writing can also facilitate the thinking process:

‘.... it can be a way of fixing things in your mind...but also helping you think about it’

(Ruth)

Some, such as Ruth and Sandie, relate journal writing to earlier experiences of diary keeping. Ruth comments that despite not being a diary keeper she is finding the journal useful:

‘Never, never kept a diary. Tempted to when I was about eight I suppose and gave up after about two days because it’s not my, my thing normally. But I am finding it very useful’

(Ruth)

Andrew distinguishes reflection and diary/journal keeping, saying:

‘I’m just not a natural diary keeper but I am a natural reflector’

(Andrew)

Though he does acknowledge the benefits of writing, as he later says:

‘Sometimes writing it down etches it into your mind, doesn’t it?’

(Andrew)

Similarly Sandie, who said she had:

‘always been awful at writing diaries of any form’

(Sandie)

She added that she had kept a reflective journal for the course, saying:

‘that was forced upon myself. I had to.’

(Sandie)

Subsequently she said:
Nancy too, who says she doesn’t write ‘naturally’, does accept that, despite the difficulties she experiences with the writing process, keeping a journal has been beneficial.

'I found it really useful, I have to say' (Nancy)

She and others can appreciate the value of writing, although they may find it difficult:

'So the writing for me enables me to dissect something and really examine it' (Nancy)

Four of the interview sample, Winnie, Mary, Denise and Ruth, are committed journal writers who find the actual process of writing extends their reflection, as described by Moon (1999) and Bolton (2001; 2005) and expressed by Denise:

'...it organises my thoughts and it helps me to, .. look back on stuff and it helped me see my progression.' (Denise)

Though she accepts that her fondness for journal writing is not universally shared:

'I'm one of those very sad people who enjoy doing a journal.' (Denise)

Again, the interviewees show metacognitive awareness of the ways in which writing may facilitate their thinking, as Andrew explains:

'.... so that thing about slowing your mind down with writing gives me a little bit of space to think about things. I'm able to put my brain to work a little bit better.' (Andrew)

Mary too finds writing supports her thinking, she says:

'I suppose it just suits me, you see, I am slow to think, sitting down and writing facilitates my thought processes .... It helps my own reflective process. I can see the wood from the trees, separating fact from emotions.' (Mary)
For some such as Mary, writing down their initial thoughts on their experiences is the first stage in a more extended process of reflection involving writing.

'I then read it, and does that make sense, and that facilitates again the thought process'  
(Mary)

Similarly, for Winnie, writing is part of the process, though not necessarily the first stage:

'I have to take time over it and really chew it and sometimes it will take about 24, 48 hours before I apply it to paper, .... and as I start to write it starts to develop and usually I come out of it thinking, ah got it, this is what I'm going to do ... the writing process clarifies .... then I go and type it up and it changes again...'  
(Winnie)

She, and others, initially make notes and then come back to them to write or type them up, resulting in further reflection. Although generally negative about journal writing, which he perceives as just creating extra work, Andrew clearly can appreciate some benefits, as he explains:

'I've actually then re-reflected on it in written form which then obviously really even more solidifies your thoughts. But it does create a lot of work'  
(Andrew)

Like Winnie and Andrew, several others return to their journal and review the entries, which again can lead to further reflection, so that it becomes a two or even three stage process, in keeping with models which represent reflection as a recursive process (Boud et al, 1985b). Clearly the writing process is valued by some and for them the journal facilitates a successive process of writing and reflection, which progressively takes the reflection further, in accordance with Bolton (2001) and Bain et al's (2002) finding of the value of journal writing. However not all individuals use the
journal in this way or keep it concurrently with experience and as the next section will illustrate, not all find journal writing a positive experience.

**Difficulties with journal writing**

As noted in Chapter 5 (p112), a third of the questionnaire respondents (33%), agree they experience difficulty with journal writing. Just as there is some uncertainty about the process of reflection (Loughran, 1996; Bolton, 2001), so some interviewees expressed uncertainty about keeping the journal and what they should be writing. Derek expresses this saying:

> 'I'm still not sure what I'm doing now. Not on the reflective journal ....'

(Derek)

Julie too questions her journal, she says:

> 'Well I think, my journal is not, well it is a journal ....'

(Julie)

While Sandie expresses concerns about the form it should take:

> 'I always end up writing things like they're a blinking story'

(Sandie)

Sandie’s concern refers to her tendency to follow a narrative format, which Bolton (2005, p20) considers to be ‘a vital part of our lives’. Julie’s concerns however, relate not just to the form of her writing but to a wider uncertainty about her approach to reflection as a whole, she says:

> 'Because I'm just so factual and bullet points always sort of thing. I'm a bit more than that in the journal but it was literally just the descriptive, of events that have happened.'

(Julie)

This reinforces the need for clear guidance on what is expected and what trainee teachers should be aiming to do with the support of their journals.
Even those who don't themselves experience a problem acknowledge the tensions around the journal, as Monica comments:

'I mean I don't mind writing things down particularly, but I know of some people who have said that they found it very hard to write that kind of thing down and specify and actually write it down, they find that quite tricky but, again, that's always going to be the way with something like that.' (Monica)

She goes on to consider that journal writing may not always be a negative experience:

'you always get some people who actually love writing the journal. I don't imagine there to be that many of them' (Monica)

Of the interview sample, four, Steven, Rosie, Sophie and Julie were strongly anti-journal. Unlike Mary and Winnie above and questionnaire respondents noted earlier (p133), Rosie finds it difficult to express her thoughts in writing, she says:

'... my biggest thing is always putting things down on paper. What I can think about in my head and expressing it on paper, I always find difficult. (Rosie)

She doesn't find the writing process extends her reflection, saying:

'what's up here [points to her head] is a lot deeper than what's written down' (Rosie)

Instead she considers keeping the journal has quite the reverse function and that the process of writing may even get in the way of reflection, as she says:

'it doesn't really say it, it cuts it short' (Rosie)

Similarly Julie expresses difficulties, saying:

'I just a struggle with it, yes. I mean I've, I, probably reading and talking is probably better for me than actually the writing reflection' (Julie)
Perhaps this just represents a lack of appreciation of the value of written reflections, or it may indicate a deeper personal preference for engagement with the reflective process. She goes on to say that she doesn’t consider that a written record of her reflections is necessary:

'... but then I don't go away and write about it...... because I've discussed it, it's sorted' (Julie)

Martin initially found writing helpful to give him metacognitive insights as he explains:

'The journal helped, get to understand me as a person. How I thought, how I felt about things, sort of like got me in touch with like, yourself... but once I understood that I, could understand what I was, what was going on. .... So, I didn't really feel the need to write things down in the journal' (Martin)

This supports Day (1993) that individuals may engage differently with reflection at different times and indicates that journals may be helpful initially to scaffold reflection. Martin now considers it doesn’t fulfil any useful purpose for him, saying:

'I didn't see the need to actually write it down cause it was, sort of like, ongoing in my brain all the time.... The other thing, the other thing was why I don't think I necessarily need to write things down, is cause I do have a very good memory for things.' (Martin)

For some, such as Julie, Judy and Martin above, the journal doesn’t fulfil a function they perceive as useful to them. Not all refer back to what they have written either, as Julie explains:

'even then I wouldn't always refer back to what I'd actually written I'd just think about what I remembered having happened and things like that' (Julie)

Similarly, Sophie doesn’t review her journal entries:

'Once it's written down I'm never going to look at it again' (Sophie)

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For these individuals the journal may be of limited value, as it doesn’t seem to be supporting a reflective approach to practice. However, as journals are a popular way to support reflection, it is worth exploring further why some individuals experience difficulty with journal writing.

The interview responses indicate there are a variety of reasons individuals experience difficulty with journal writing. For some it may derive from specific reasons, such as dyslexia or physical disability, which make the writing of a journal difficult. As Sophie considers:

‘I don’t know whether it’s because of, because of being dyslexic, I don’t know if that’s got a bearing on it …... The writing’s a problem because I get lost’  
(Sophie)

She also says:

‘It’s too time consuming, I don’t think that the journal is particularly useful for me as a tool for reflection …. it didn’t make me any more reflective’  
(Sophie)

Steven explains the nature of the difficulties he experiences:

‘To write anything down, I have got to get to a computer or a laptop, because with my eyesight and my hand …’  
(Steven)

He doesn’t find writing helpful, saying:

‘I don’t find value, personally, in the written word. I have already done the reflection and I’ve drawn the conclusion without putting it down on paper.’  
(Steven)

Referring to reflection and writing the journal he says:

‘it’s an ongoing thing and writing it down is not going to trigger my though processes to coming up with a solution to the problem. So having the problem written down is taking up time!’  
(Steven)

Steven and Sophie just don’t find journal writing serves a useful function for them. Apart from his physical difficulties with writing Steven, expresses difficulty with writing in general.
'I am quite expressive as a person, I am not very special at putting down thoughts and personal opinions on a piece of paper'

(Steven)

A further four interviewees, Derek, Nancy, Andrew and Judy, could be described as resistant to journal writing, in that they weren't comfortable with writing. While Judy doesn't find writing helpful, saying:

'I don't see how it would help me putting it down on paper'  (Judy)

Others' responses seem to indicate that, rather than a dislike of journal writing deriving from a lack of appreciation of its potential value, they identify the limitations of their own capabilities. Like Steven, Derek acknowledges that writing is not a good medium of expression for him:

'... it's the writing process because I feel, I think, well I know, I know I'm not a brilliant communicator, I know that, but I know I'm better verbally than by writing it down'  (Derek)

Nancy also doesn't find writing easy, saying:

'... writing doesn't come naturally to me.... I think I communicate verbally easier than written.'  (Nancy)

Clearly, these individuals are not comfortable with the writing process and their journal entries appear to be made to fulfil course requirements rather than functioning as vehicle to promote reflection. Whether or not their self perceptions are accurate, it would seem that the requirement to keep a reflective journal could actually be counter-productive and impair their engagement with reflection.

The interviewees who experience difficulty with journal writing deal with the necessity to generate journal entries in different ways. For them the writing process is not a 'vehicle' for reflection. Contrary to the sequence expressed by Bolton (2001, p5), 'Course participants do not think and
then write’, this is precisely what they do. They reflect, either alone, like

Steven:

‘when I’ve had to come up with my journal entries for the coursework, what I’ve done is back track and then re-written my reflection into a journal format, but it’s far from being a truthful journal in that, yes, it is what I did and it is how it worked, but …it’s not written at the time ’

(Steven)

Or in discussion with others and then write their journal at some later point in time, as Julie explains:

‘I have to kind of retrospectively go back and think now should I be writing anything’

(Julie)

Most try to write regularly, but often resort to retrospective accounts, prompted by diaries and timetables, to cover periods writing had not taken place. Monica describes the system she follows, saying:

‘I tend to write my journal in a month, like January, cause I find it hard to break it down into Wednesday 13th and then I will base it on, I will look back on my things for January and I’ll summarise it, say maybe every two months I’ll go back and I’ll write a paragraph about it and then once I have it all there I can pull it all together at the end, I can go back and elaborate on it...’

(Monica)

Interestingly, Denise, who is a committed writer, also refers to using her journal in this way saying:

‘.... but it’s very important, once I’ve thought it through to put something on paper. Because it’s no use to me otherwise I just forget what I thought’

(Denise)

Although she also uses it concurrently, indicating that her journal serves a variety of functions in supporting her practice, she says:

‘.... if I think of something while I’m doing it, or I observe something or somebody says something, I will often write it actually straight down’

(Denise)

There is a danger that the journal is seen as just another hoop to jump through to achieve the qualification, as reported by Sumsion (2000). It
becomes a necessary chore along the way, rather than contributing to the reflective process, as expressed by Judy:

'it doesn’t come naturally to me ... it seemed more of a chore’  
(Judy)

Similarly, Martin sees it as something he just has to do:

'I mean I have sort of like written things down in my journal obviously cause I had to...'  
(Martin)

It is clearly seen by some, as just extra work, as Andrew describes:

'My instant reaction was ‘ah, not more work, not more work please....'  
(Andrew)

Steven explains his view that this is work which doesn’t fulfil any real purpose for the trainee saying:

'Recording it is doing nothing other than creating evidence of what I do. Who am I doing that for? .....it’s just another of those stumbling blocks along the road’  
(Steven)

Steven’s comments raise questions about whether the purpose of the journal is to support the development of reflection or to fulfil a monitoring function (as noted in Chapter 5, p123-4) to provide evidence that trainee teachers are analysing their experience.

In response to being asked if the journal helped with reflection, Sandie commented:

'No, well, no I don’t ..., well it did from the point of view of then having to extract from it for portfolios’.  
(Sandie)

Suggesting she sees the journal as contributing to her coursework, rather than supporting her engagement with reflection.
Time constraints also have a bearing on journal keeping. According to the questionnaire responses only a few (7%) consider it to be a waste of their time (p111), though most interviewees commented on the time required to keep it as Rosie indicates:

'you've got the time element ..'  
(Rosie)

While Sophie is quite clear that it isn’t worth the investment of time, saying:

'it's too time consuming'  
(Sophie)

Even committed journal writer Mary acknowledged the tendency not to write when under pressure – perhaps the very time when reflection might be most beneficial.

'It is time consuming .... sometimes something has to go ... the journal goes'  
(Mary)

There are wider issues here too, if, as Boud (2010) suggests, the recording of events becomes synonymous with reflection. It is possible some individuals are not clear about the distinction between reflection and the act of writing a journal. This may be partially responsible for the LSDA (2003) finding that many of their respondents claimed that the demands of their teaching meant there was no time for reflection.

There is clearly ambivalence surrounding the role of the journal, which is intended to function as a means of supporting reflection and provide the trainees with a tool to enable them to develop as reflective practitioners. For some individuals, such as Winnie, Mary, Debbie and Ruth, it works well to facilitate their reflection. For others, such as Andrew, Martin and Nancy, it may serve as a helpful scaffold to support reflection although
they may subsequently feel they need to write less. For most then, even though they may be reluctant writers and find keeping a reflective journal difficult, the process is valuable and therefore worth persevering with. However, a substantial minority, as typified by Steven, Sophie, Rosie and Julie, experience difficulties and do not perceive journal writing as helpful. Such difficulties with journal writing may derive from general problems of expression, translating thoughts into words, as noted by Reiman (1999), or from individual disabilities. Where individuals are very resistant to journal writing its role in supporting reflection is questionable and other strategies may be more effective. Therefore trainees should be aware of different techniques for engaging with reflection, and the model presented in Chapter 8 (p202) allows for this flexibility.

This section has identified some differences between individuals in their engagement with reflection. The next section will explore these in more depth.

Preferences in engaging with reflection

Although the questionnaire responses presented in Chapter 5 (p109) indicate that many (88%) agree that discussions with others help reflection, the interviews show that some individuals reflect alone, either from personal preference, or due to the constraints of their practice setting. Steven, Rosie and Martin all consider themselves as reflective.
They predominantly reflect alone and don't find journal writing helpful.

All three demonstrate metacognitive awareness, with Martin and Steven being eloquent on their own mental processes.

Martin is new to teaching and is undertaking teaching hours to meet the course requirements. Steven and Rosie have both been teaching for some time, although both mention that they lack colleagues to discuss issues with and acknowledge feedback from others can be helpful, they don't appear to miss input from others, as Steven comments:

'I lack colleagues that I can perhaps go to and try and share it with, as I work very much in isolation....'  

(Steven)

However he goes on to speculate about the benefits of having someone else to talk to saying:

'I can well imagine it. If you've got that person to talk to, it's nice to get feedback from anyone'  

(Steven)

Similarly Rosie mentions that although she mainly works and reflects alone, she will talk to others when the opportunity presents itself.

'... not everyone in the centre does the training like I do .... so other people that do it and experience it the same as myself, then yes I will speak to them'  

(Rosie)

It is possible that Steven and Rosie may have developed ways of working without reference to the views of others due the contexts in which they teach. Alternatively it may be that they are able to teach in those contexts because they are more self sufficient. Both consider themselves to be reflective and have been teaching for some time, so presumably have prior experiences to draw on which help them to conceptualise their practice without reference to others. Neither uses a journal to support
their reflection. As already noted, Steven doesn’t find writing his
thoughts down helpful at all; while Rosie can see some benefits, she feels
the writing limits her thinking. Martin, however, has no prior experience
of teaching, nor does he have any obviously relevant occupational
experience, but he does consider himself as naturally reflective.

Mary, Winnie and Ruth are all new to teaching, and like Martin,
undertaking practice to meet the course requirements. Mary has prior
experience of using a journal and of working independently in her
occupation outside teaching; like Winnie she considers herself as
naturally reflective. Winnie and Ruth have prior experience of running
their own businesses, which may be related to their self-reliance. Ruth
didn’t consider herself reflective prior to the course, although she does
say she has always thought about what she does and now appreciates the
value of reflection. All three primarily reflect alone, supported by the use
of a reflective journal. As might be expected from apparently
introspective individuals, all three show strong metacognitive awareness
of their engagement with reflection; Winnie and Mary are particularly
able to articulate the processes they follow. While they seem to favour an
individual approach, despite the availability of colleagues to talk to, Ruth
lacks colleagues to talk to in her workplace and seems less confident
about being on her own, she says:

'I suppose I feel a little isolated....'  
(Ruth)

For her the journal is a valuable support, she suggests:

'...that's probably why I write so much in it.'  
(Ruth)
Winnie in particular is very confident of her own ability to solve any problems which might occur, even though she has a mentor and colleagues she could discuss things with, she comments:

'I didn't want to talk about it. That's me, I have to shut down and do a reflection.... ....I'm purely self-contained in that sense ...I find it hard to bounce off other people'  
(Winnie)

When questioned about this she found it hard to imagine needing to go beyond her own resources, saying:

'I suppose if it was out of my remit I'd have to look for the right sort of advice'  
(Winnie)

This self reliance may derive from her background, as a mature entrant into teaching, with a previous career and having run her own business. However, she considers her childhood experiences to be significant, saying:

'You think about a lot from growing up. You know it depends how you were brought up I think, it goes right back then, to what's said to you and how you react and how you think of how you react .... so you're constantly thinking about keeping out of scrapes'  
(Winnie).

Whatever the origins of her self sufficiency, Winnie clearly holds a strong belief in her own capacity to thing things through to achieve a positive outcome. In contrast, although Mary predominantly reflects alone and finds writing her journal tremendously valuable, she can see some limitations with this, as she says:

'it's like navel gazing .... You're only getting your own point of view about your own stuff.'  
'you need that outside person to talk you out of that ... give the opposite point of view or help you out of the hole you get yourself into.'  
(Mary)
Ruth too is prepared to consider going beyond her own resources to refer to colleagues, she comments:

'I think I would discuss with a colleague certain things'  
(Ruth)

So, although Mary and Ruth derive great satisfaction from writing their journals, they differ from Winnie in that they show awareness that reflecting on their own may have its limitations. Their references to other points of view are in line with the levels proposed by Jay and Johnson (2002) and Manouchehri (2002), which include comparisons with other people's perspectives.

These six individuals all habitually reflect alone, so they can be described as personal reflectors, but they differ over the use of the journal, with three (Mary, Winnie, Ruth) using journals and three not (Steven, Rosie, Martin). It is possible to speculate over possible reasons for their preference for personal reflection, but such speculation doesn't provide explanations, it just indicates the diversity of their backgrounds and confirms the likelihood of individual differences in engagement with reflection, supporting Boud et al (1985a; 1985b). Despite this diversity these six individuals predominantly make sense of their practice themselves, with limited recourse to others. So, while prior experiences may predispose individuals to reflect personally, it is equally possible that this may indicate inherent differences between them. Any model of reflection needs to acknowledge this and offer a variety of approaches.
Most interviewees use a combination of individual and collaborative reflection, using others in a variety of ways. Derek predominantly reflects alone ‘in his head’, without the use of a journal, though he ‘sometimes’ supplements this with discussion with colleagues, it is clear that he relies on his own capacity to work things through.

‘so I talked to my colleague .... and I kept thinking what’s the easiest way out of this, .... and I kept thinking about it’

(Derek)

His reluctance to share his experience with others may relate to his selectivity when writing in his journal, that he doesn’t want to admit publicly to any problems in case this reflects badly on his practice:

‘I try not to put a lot of negative in there because I think it might reflect on my teaching practice’

(Derek)

Alternatively, it may be, that like Winnie, as a mature entrant into teaching, having successfully run his own business in his previous career, he is used to working independently without reliance on others.

While others may predominantly reflect alone, they accept that their own thinking may have limitations, as Judy comments:

‘.... you can only go so far with yourself’

(Judy)

While Monica comments that the results of reflecting alone may be illusory, saying:

‘If it’s just you trying to do it on your own you’re sitting there and great, you can work out anything you want to work out and fix everything in your mind’

(Monica)

Similarly Sandie suggests that input from others can be valuable:

‘I think you’d have to do it on your own and together .... you’re sort of standing in a pond on your own otherwise.... ....I do think it’s really important to confer or reflect with
colleagues’

Sandie is new to teaching and is gaining the qualification because she has started teaching. In contrast, Monica has experience of teaching in different contexts, including one with structured group ‘review’ sessions, as well as of a prior career where what she did was never subject to question, she says:

'I spent a long time, I obviously spent maybe the best part of five years in my old job without really reflecting on what I did because I had all of the qualifications and no one questioned what I did'

(Monica)

She is now committed to reflection, referring to it as:

'...a very powerful tool'

(Monica)

Other interviewees also accept that discussion with others can supplement their own thinking and offer new opportunities to learn and develop. Andrew has moved into teaching because of his subject expertise and already has experience of different settings through part-time teaching, but is keen to develop his practice:

'I'm always looking for feedback in a way .... because I'm looking to discuss things, yeah, and reflect upon how and to make things better'

(Andrew)

Denise similarly has come into teaching because of her subject expertise within education, but is relatively new to teaching in the post-compulsory sector and looking to learn from others, she explains:

'.... so I do like, erm, sharing with other people. I think you can learn loads from other people ....'

(Denise)

Andrew and Denise are taking the qualification to enable them to continue teaching and see the course as helping them to develop their
practice. While both value the role of reflection, Denise is a committed journal writer and Andrew is not.

So while these individuals are comfortable reflecting alone, they also use others to get a different perspective on events. Perhaps as new/relatively new teachers, they particularly seek the views of others to 'triangulate' with their own interpretations to help them to construct a clearer understanding of practice situations. As noted above Ruth, another new teacher, implied that she missed having someone to share her practice experience with, suggesting that she was more reliant on her journal because of this. Clearly though, the interviewees represent a range of backgrounds and while these may suggest factors which may have made them more inclined to share their experience with others, it is equally possible that some individuals just prefer to reflect on their own, while others are more likely to share their thoughts with others.

Julie and Judy, who are both new to teaching, are more specific about the way in which contributions from others can be useful by providing different perspectives on events. Their views are in line with the levels of reflection proposed by Jay and Johnson (2002) and Manouchehri (2002). As Judy explains:

'I like having other people's points of views to discuss. They give you different angles to see it at' (Judy)

Judy finds discussion with others an automatic way to work through her experiences.

'I benefit from reflection the other way see, talking with people
... it just comes naturally to discuss it 

(Judy)

Similarly Julie explains how other viewpoints can extend her reflection:

'I think also the discursive thing is useful because I don't think that a thing that stops you being very insular to actually discuss it with other people and get other viewpoints and things as well so I think that helps with the development...' (Julie)

Like Julie and Judy, Sophie’s preferred mode of reflection is discussion with others; they all value the different perspectives on experience that others can provide. None of them find writing their thoughts down helpful.

'I find it much more useful if I can have a conversation with someone...

'... it forces you to be really open and try to understand different points of view of what you're doing.' (Sophie)

Sophie is in a similar position to Andrew and Denise, teaching part-time alongside working in her subject specialism. Sophie’s approach to her own reflection is in line with her view of the learning and teaching process.

'And through talking to other people you learn you know, you come up with answers to things yourself just from hearing what other people are talking about' (Sophie)

While both Sophie and Judy consider themselves to be naturally reflective, and they do engage in personal reflection, their preference for talking to others puts Sophie and Judy towards the social end of a personal-social continuum. Both also see learning as a process in which learners make sense of information for themselves. For them keeping a journal is not an effective means of supporting their reflection. Instead other strategies might be of more benefit. Sophie would prefer some form of regular discussion, perhaps with a tutor/colleague:
'what I would really love is to work with a sort of second equal if you like, or a second tutor, that was in more regularly who understood the course to the same level that I could, that we could really discuss, right, this isn’t working or you know pick things up'  

(Sophie)

In accordance with Harrison et al (2005), She also suggested that a mentor could fulfil this role:

'I think what would have been really helpful perhaps... is, yes perhaps, rather than having discussion groups, but having a mentor you could go to and have a tutorial with, and almost like a counselling session'  

(Sophie)

One of the recent changes to post-compulsory teacher education implemented by LLUK has been the requirement for all trainees to have a mentor, so it is possible that this form of support is now in place. Though Monica could see some potential problems with this, she says:

'... it's very much a personality thing as well whether you like your mentor.... If you didn’t it would all break down then, wouldn’t it?'  

(Monica)

There could also be issues where the mentor is also the trainee’s line manager, as trainees might not feel able to share some experiences, much as Derek doesn’t like to write too much negative in his journal in case it casts him in a bad light, as noted earlier (p179).

McMahon (1997) and Manouchehri (2002) recommend peer discussion to support reflection, and Julie suggests structured peer group discussions:

'I think a small peer group would be a really good way of .... small group discussion and if there were specific things you needed to, erm reflect on, you could say right this week we’re going to talk about assessment or whatever...'  

(Julie)
While Judy thought opportunities for discussion with her peers could be valuable, she felt these already took place informally, when the trainees shared their experiences and problems could be aired.

'I don't think you need to have it devoted to part of the session because it just happens naturally.... Well, break times, whenever you're around then, you just.... So we're always talking about it all together.' (Judy)

She also thought that structured opportunities for discussion could become forced or unnatural and therefore less useful, just as the imposition of a journal is not helpful for some, saying:

... if you had like a session where you have to ... this is ..., devoted to talking about your PDJ... or devoted on what happened last week....but then that would be too forced I think' (Judy)

This section has identified different approaches to the process of reflection, with individuals varying in the extent to which they think things through for themselves, use journals, or share their thoughts with others. A personal-social dimension is thus apparent in individuals' engagement with reflection, and this needs to be taken into consideration when providing support for reflection. However journal writing involves the translation of thoughts from the private, personal domain into the potentially public arena. The following sections will explore the public-private and personal social dimensions.

Putting thoughts into words: private – public knowledge

As already noted, some interviewees refer to experiencing difficulty putting their thoughts into words. Although this may represent a personal
preference, it also relates to the function of language as an expressive
tool. Martin explains his experience saying:

'There's a disconnect there and I found I couldn't actually
type what I was thinking' (Martin)

It also indicates the role of reflection in constructing experience (Berger
and Luckmann, 1966; Reiman, 1999), as Ruth explains:

'Occasionally I'll make a mark by something if I think it needs
a bit extra, because I've thought that needs more but I can't
frame it at the moment. ...it's not clear in my brain. (Ruth)

Again, the interviewees’ metacognitive awareness is evident here, as they
explain the nature of the difficulties they experience. Winnie’s comments
are particularly perceptive as she explores the relationship between
thought and the written word.

'I think it’s something about writing it down, I think it’s some-
thing about actually writing the language, you've almost got
to the point where you 've censored yourself by the time you
come to write it down, making it more coherent.' (Winnie)

Winnie’s metacognitive insights into the process of writing indicate
something of the relationship between language and reflection. She goes
on to explore this process of translating thoughts into words further,
saying:

'I suppose, trying to make it more coherent for that other
part of yourself that reads it, it's like a split personality process ....

'...Because when you actually write it and read it back to your-
self you think, I didn't quite mean it that way, it’s the way you
use words I mean I use words for different occasions in different
ways.' (Winnie)

Though she is quite clear that the translation of thoughts into words
doesn’t inhibit her reflection, it seems to be more a process of refining the
thoughts, which she refers to above as censoring yourself and later as:
'just being a little bit more civilised'  
(Winnie)

It is almost as if there is a process of self dialogue going on in her thinking and writing. This akin to the suggestion by I'Anson et al (2003, p196) that writing offers an opportunity to distance the views presented from the self so they can be critically appraised by the 'self as other'. For Winnie her writing then acquires another dimension when she types it up, when it seems to become more 'public', as she explains:

'I don't know it's almost as if then you have people peering over your shoulder and looking into your thoughts and so it's probably a bit more censorship coming in then ... And it's not as if it's refined to please an audience, it's much more than, it's still my stuff, but it's still that feeling that someone else is looking at it'  
(Winnie)

There is an awareness of an audience for her writing, although it is not intended for others to read. The role of the journal in creating a self dialogue is also apparent in Mary's responses, she says:

'I obviously do reflect, but it's not out there is it, this is why I love the journal, I get excited, because once you do put it out there, it then becomes a conversation with yourself'  
(Mary)

Like Winnie she also draws the distinction between writing for the self and for a public audience, saying:

'It's like giving yourself supervision, you can actually be honest with yourself can't you? In your personal journal. I think it's important that it's not a public document so you can only reveal what you want'  
(Mary).

Similarly, Sandie refers to her journal as 'private, and personal', rather than something which may be seen by others.
It may be that the act of writing creates the semblance of a dialogue as Mary suggests, since Steven, who doesn’t use a journal, doesn’t experience reflection as a process of self-dialogue, he comments:

‘I don’t really talk to myself. It’s really a mental process’ (Steven)

Denise, another committed journal writer, doesn’t explicitly consider that others may read her journal, but her comments indicate some awareness that this is possible.

‘.... so it might be a whole sentence but in my own shorthand and, I often use like, a cryptic code.’ (Denise)

Unlike Mary, Winnie and Denise, Nancy is a reluctant writer, however she also alludes to the potentially public nature of the written word, which influences her approach to committing her thoughts to paper.

‘I find writing quite exposing so I don’t think I’d even, though nobody else, I wouldn’t be handing it in for somebody to read, but the fact that it’s written down on the page means that somebody can read so I think I’d feel the same’ (Nancy)

Judy also conveys a reluctance to commit her private experiences to paper, saying:

‘I’ve never felt comfortable with writing diaries, writing my feelings down I’ve never been comfortable with that sort of thing’ (Judy)

For Sophie, who prefers to discuss her experiences with colleagues, it’s not making her thoughts public, which is an issue, but the formality, and perhaps the permanence, of the written word.

‘I suppose that’s the other thing about the written word is you can get tripped up with grammar or what have you, or get caught up with it, whereas if you’re having a discussion with somebody...I don’t know, grammar is not so important in speech’ (Sophie)
As noted earlier (p178), Derek is also concerned about how what he writes may be perceived, suggesting that he censors his thoughts to select appropriate material to record.

The process of converting thoughts to the written word is clearly far from straightforward. Journal writing is a personal process, but putting thoughts into words offers the potential of sharing them with others, although they may not be written with this intention. This transfer of knowledge from the private sphere of personal thought processes into the potentially public arena is a process which the interviewees negotiate with varying degrees of caution. Some write freely, others are more guarded in what they commit to paper, even though they are able to select and edit journal excerpts for their coursework. The awareness of audience and the possibility of sharing their thoughts introduce a social dimension to the reflection. The next section considers the personal-social dimension. The relationship between the personal-social and private-public dimensions is discussed further in Chapter 8, where a theoretical model of their relationship is outlined (p199, p202).

**Personal and social reflection**

The literature offers different views of reflection, seeing it as an individual process, whether through introspective thought (Dewey, 1933; Boud et al, 1985a), or journal writing, but also one that can be facilitated through discussion with others (Brockbank and McGill, 1998; Bolton,
It would seem that there is a personal – social dimension, which is evident in individuals’ engagement with reflection. Individuals who habitually reflect on their own are formulating personal interpretations of events, drawing on their own internal, cognitive resources to develop their understandings (a constructivist approach, as exemplified by Kelly (1966). Those who reflect socially, through discussion with others, construct understandings collaboratively, through social interactions which involve social practices and a shared medium of language (a social constructionist approach, following Berger and Luckmann, 1966).

The interviewees can be loosely arranged on a personal-social continuum. Those who predominantly reflect alone, either with the support of a journal (Mary, Winnie, Ruth) or without (Steven, Rosie, Martin) occupy the ‘personal’ end. While those who prefer to reflect collaboratively, through discussion with peers/colleagues (Sophie, Julie, Judy) are positioned towards the ‘social’ end. In between the two poles lie those interviewees who use varying combinations of personal and social modes of reflection, with or without the support of a journal. This variety of approaches supports the provision of different techniques to support reflection among trainee teachers, such as peer discussion (McMahon, 1997; Manouchehri, 2002), role play (Hargreaves, 1997) and mentor involvement (Harrison et al, 2005). The personal -social dimension appears linked to the dimension of private-public knowledge (Bolton, 2001; 2005), which emerged as a theme in some of the interviewees’
responses. Their relationship is discussed further in Chapter 8, where a theoretical model to encompass these (p199) and a practical model to accommodate a variety of approaches to reflection (p202), are proposed.

Previous sections have noted the interviewees' focus on their own behaviour and experience. However individuals' experiences and the ways they interpret them, either personally or socially, all take place within a wider socio-political context. So another facet of the reflective process is the extent to which it includes consideration of wider issues beyond the individual's immediate practice.

**Reflection on the wider context: the societal domain**

The role of discussion with others has been noted as a means of taking reflection further, into what some characterise as 'critical reflection' (Smyth, 1989; Brockbank and McGill, 1998). Several models of reflection include considering the wider social – political context, at the levels designated as higher (van Manen, 1977; Jay and Johnson, 2002). So it is perhaps promising that most of the interview sample appreciate the value of other points of view and do engage in discussion with colleagues and peers. However, just talking to others doesn't necessarily mean that they are engaging with reflection at this so-called higher level. It is possible that their focus is still on themselves, their practice and problems arising from it. Certainly where the journal is used as the primary vehicle for reflection this represents an individual/personal
approach, which Ward and McCotter (2004) suggest may contribute to a focus on technical aspects of practice. This also raises issues for individuals who prefer to reflect alone and those whose practice contexts don’t provide opportunities for discussion if their reflection is restricted by these aspects. Alternatively, it is possible that reflection may still access the so called higher levels without engaging in discussion.

According to the questionnaire items nearly half (48%) the sample do see reflection as leading them to think about wider educational issues (Chapter 5, p110). This was evident in the interviewees’ responses, as they commented on their thoughts on wider issues, whether this is at the level of the institution and cross-institutional links, as Monica speculates:

‘I definitely wondered how all the different organisations work together. There’s all sorts of things we could do differently.’

(Monica)

The institution and beyond as Nancy suggests:

‘It’s cultural issues, you know, that come in to the institution, it’s, teaching issues, it’s management issues, it’s finance issues. It’s the whole education issue’

(Nancy)

Or national policy level, as Sophie and Winnie explain:

‘… this is all part of a whole issue, that actually, what is the value of education. And who the, people like the LSC and these other people, really, what value do they put on education?’

(Sophie)

‘I’m quite hot under the collar when it comes to educational politics and I’m becoming much more aware of what’s happening. You know, you start to ponder, ponder about life, the universe and everything’

(Winnie)

However reflection on these aspects were not necessarily triggered by discussions with others, it could be stimulated by reading, as personal reflectors like Mary, an avid reader, and Martin indicate:
'I got into this postmodernism .... FE Colleges and the incorporation in 1993 .... and all the curriculum .... to look at the whole degree .... So I reflect on different levels. (Mary)

'it does depend on what happens really and what I will read sort of, in like, newspapers and things like that' (Martin)

Andrew suggests that looking beyond one's own practice is a gradual process, offering support for Day's (1993) view of differing engagement with reflection at different times. He says:

'you start to see further... ...beyond your classroom, you know, your curriculum and teaching plans. You start to think 'What's going on with the, managers?' .... And 'What's going on with their managers?'...... You start widening your scope' (Andrew)

Similarly Denise explains how her perspective has widened:

'So I've gone from these are my philosophies and my ethos and my subject knowledge about under-5's to, now learning about the wider.... so looking at sociology and social implications and, um, further education which had never interested me before, government policy' (Denise)

Ruth, although new to teaching, hasn't really thought about wider issues, but is already beginning to question provision in her own context, with some awareness of wider issues when she says:

'Ve really ought to be offering something for beginners but of course it's a problem with funding' (Ruth)

Others however, do recognise the role of discussion with others in taking them beyond the immediate concerns of their own practice. As Judy comments:

'I don't focus on my teaching... I mean .... I talk about policies and the wider issue no problem, and we do talk about wider issues and everything, and they always crop up' (Judy)

Julie considers her reflection would be less extensive without such discussions:
‘Yes, having discussions with people so I don’t know that I would have reached all the wider things by just literally writing things.’ (Julie)

However, as noted in Chapter 5 (p110), 41% of the questionnaire respondents don’t consider that reflection has led them to widen their horizons and this view was evident among the interview sample, though to a lesser extent. Some, such as Sandie, who is new to teaching, are clearly more concerned with their practice.

‘I haven’t really, honestly, I can’t honestly say I have really thought about it beyond what I do .... Because I feel naive and novice still and I refuse to run before I can walk’ (Sandie)

Although she does demonstrate awareness of wider issues when, having said how much she enjoys teaching adults she comments:

‘.... of course the funding for a lot of adult courses is stopping’ (Sandie)

This invokes the question, raised earlier in Chapter 3 (p44), of the significance of this form of reflection, whether it is desirable or necessary, and if the latter, what proportion is required. Steven, who is the only interviewee to exclusively refer to a transmission model of learning, makes no reference to wider issues. Rosie, who accepts different models of learning in different contexts, including a transmission model, is very pragmatic in her approach, consciously not tackling wider issues, saying:

‘Somebody’s made the decision and you’ve got to go with it and that’s what I focus on, how I’m going to do it rather than sit and bash out the ifs, whys and... I just deal with it. Because I have to’ (Rosie)

So there is perhaps a tenuous link between the model of learning and teaching and engagement with reflection, as noted by Sumsion (2000).
Derek takes a similar, if rather cynical view referring to the pace of change within education, when he says:

'The only thing I've learned in education is whatever's right today will be changed next year or maybe five years down the line. And, and they just move your goal posts, all the time'

(Derek)

Both these responses indicate a perceived lack of autonomy, so while reflection may enable them to change their own practice, these interviewees don’t recognise its potential for promoting wider change.

So, although the majority of the interviewees clearly do engage to some extent with wider issues in their reflection, most have not given substantial thought to such issues and others are only beginning to develop in this direction. However, if we accept the concept of reflection as a construction of practice, all their reflections, whether personally or socially conducted, are situated within a wider societal context, which will exert an influence on the understandings they develop and the beliefs and values they hold. As Monica succinctly expresses:

‘I’d say more personally you take with you, don’t you, even if you don’t mean to you take with you your beliefs and what you, you know, all that…’

(Monica)

The source of those beliefs and values that individual bring to their experience of teaching and their reflection on their practice is the wider socio-historical context in which they grow and develop. So the ways in which individuals interpret their practice will be influenced at the societal level, by prevailing discourses in wider society (Burr, 2003); at the interpersonal/social level by interactions with peers and colleagues (Berger and Luckmann, 1966) and at the personal level by their own
personal ways of construing situations (Kelly, 1966; Boud et al, 1985a/b). This is represented in the theoretical model presented in the following chapter (p199).

Conclusion

This chapter has looked at individuals’ engagement with reflection, whether through introspection, journal writing, or discussions with others. It has explored the use of journals and found that, while writing works to support reflection for some individuals, it does not suit all. Difficulties with journal writing are reviewed in relation to personal factors and the deeper issue of putting thoughts into words. The use of journals is also considered in relation to a private-public dimension. Engagement with reflection is related to a personal-social dimension, with some individuals habitually reflecting alone, with or without the support of a journal, while others share their thoughts and experiences through discussion with others. The previous chapter noted intrapersonal and interpersonal content of reflection and this chapter has considered the wider societal context. The next chapter will suggest a theoretical model to incorporate both personal-social and private-public dimensions as well as the content of reflection (p199). It will also propose a practical model to guide engagement with reflection (p202), drawing on the findings presented here.
Chapter 8

Conceptualising the process of reflection

As outlined in Chapter 3, there are a variety of models of reflection and experiential learning addressing both the process (Kolb, 1984; Boud et al, 1985) and the content (van Manen, 1977; Jay and Johnson, 2002; Ward and McCotter, 2004). Most models address Schön’s (1983) concept of reflection-on-action, starting with an event, or experience and offering an explanation of the processes which individuals engage in after the event. However it is clear that the process is complex and multi-layered (Hatton and Smith, 1995; Mezirow, 1998) and as Boyd and Fales (1983) and Boud et al (1985b) have argued, linear representations cannot do it justice. Indeed, as I have argued in Chapter 3, the metaphor itself doesn’t adequately capture the multi-faceted nature of the reflective process, or the emergent quality of the results, so a kaleidoscope may be a better analogy (McKenzie, 2010a).

The literature suggests reflection may be undertaken both individually and collaboratively and that our interpretations of experience derive both from our personal view of the world and the social context. The interview findings presented in Chapter 7 suggest that individuals’ engagement with reflection varies along a personal-social dimension, with some individuals preferring to reflect on their own, with or without the use of a journal, while others engage in collaborative discussion, some preferring this to individual reflection. Preferences for personal and social engagement with reflection are underpinned by theoretical
approaches to the personal and social construction of understandings of experience (Kelly, 1966; Berger and Luckmann, 1966). Rather than showing the predominance of one over the other, these findings suggest that both are complementary, working together in practice (Still, 1996).

The findings presented in Chapter 7 also identify a public – private dimension, also evident in the questionnaire responses (see Chapter 5, p133). Figure 8.1 proposes a way of conceptualising the relationship between this and the personal-social.

**Figure 8.1. Relationship between personal-social and private-public dimensions**

<table>
<thead>
<tr>
<th>Private</th>
<th>Social</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thoughts</td>
<td>Values/ Beliefs/ Attitudes</td>
</tr>
<tr>
<td>Personal Writing (Thinking aloud)</td>
<td>Speech/ dialogue Public writing</td>
</tr>
</tbody>
</table>

The quadrants created by the intersecting dimensions in Figure 8.1 relate to different aspects of reflection. Thoughts and introspective reflections constitute private and personal reflection; translating these into writing takes them into the public domain, as does ‘thinking aloud’, although not intended for an audience, while dialogue and other speech acts, are public and inherently social. The social-private quadrant is represented by
values, beliefs and attitudes, noted by Monica (p194) and Respondents 080 and 110 (p132), which are privately held, but derived from the social context.

When individuals reflect on their own, with or without the use of writing, their interpretations of their experience are personal constructions, which according to Kelly (1966) will depend on the individual’s own personal way of construing events. The meanings are implicit; there is no need to make these explicit for others to understand. When individuals engage in discussion with others they bring their interpretations into the public domain, the use of language, choice of words, what is said and not said all convey meanings to others. Through the process of dialogue, intentions are clarified and meanings are shared, so that joint understandings are developed. Interpretations of experience created through collaborative discussion are thus socially constructed.

However, drawing on both Kelly (1966) and Berger and Luckmann (1966) it can be argued that all constructions of personal experience are subject to the influences of the social context. According to Kelly, our individual constructions are tempered by the sociality and commonality corollaries and therefore although inherently personal, they do not exist in isolation from the constructions of others. According to Berger and Luckmann (1966), our individual constructions are subject to the influence of language at what Burr (2003) refers to as a micro social constructionist level, thus they absorb the influence of the social context.
Therefore, although individuals may exhibit preferences in engaging with reflection personally or socially, the outcomes of their reflection are influenced by both personal and social factors.

In addition to the personal and social dimensions, integral to the process of reflection is the content of the reflection. This can be classified using the domains outlined in Chapter 2 (p25-6) and applied to the questionnaire data in Chapter 5. It may be intrapersonal, looking at one’s own behaviour and experience, including thoughts, values, beliefs and emotions; interpersonal, considering the perspective of others, their actions and possible intentions, beliefs and emotions; or societal, taking into account wider institutional and national policy and practice. When these are combined with the personal-social and public-private two dimensional model from Figure 8.1, the result is a three-dimensional theoretical model, as represented in Figure 8.2.

**Figure 8.2. Model of components of reflection incorporating process and content aspects**

![Diagram of three-dimensional model](image-url)
Each cell of the model represents specific content and mode of engagement with reflection. Although not all would be included in any one instance of reflection and different cells may be addressed at different times. Personal reflection, whether through introspection (private) or journal writing (public), may focus on one’s own actions and feelings within the intrapersonal domain (see questionnaire analysis p131-3). Personal reflection may take others’ behaviour and intentions into account, moving the content focus into the interpersonal domain (see p133-4) and may also consider wider societal factors, such as institutional and national policy and practice (see Chapter 5, p134-5 and Chapter 7, p190-4).

Discussion with others similarly could focus on one’s own behaviour and intentions (social, intrapersonal), but could offer different perspectives on this and the actions and intentions of others (social, interpersonal), and also discussion of wider policy and practice (social, societal) thus spanning different cells of the model. The quadrant relating to beliefs, values and attitudes represents a significant area for reflection with regard to personal development, both in terms of reflection on one’s own values and belief systems as well as those of peers and colleagues, institutional values and wider social, philosophical and political views on the nature of education.

Discussion with others provides different perspectives on experience. This is evident in the interviewees’ references to using others to gain
different viewpoints, and in models such as those proposed by Jay and Johnson (2002) and Manouchehri (2002). The interpretation of events thus becomes more explicitly social. This also suggests that our understandings are subject to revision and refinement as we accumulate evidence. The use of other sources of information, provides a form of triangulation to extend understanding. The experience at the centre of the process is subject to multiple reflections, from different angles, all in constant interplay. As discussed in Chapter 3 (p45-7), the complexity of this process, with the use of multiple sources of information, clearly represents a challenge to the traditional metaphor of reflection, which implies a static mirror image from a single point. The use of different sources of information to form an evolving interpretation is more akin to the effect produced by multiple mirrors in a kaleidoscope, where the relationship between the components shifts to produce constantly changing images.

The model in Figure 8.2 provides a theoretical representation of different approaches to reflection, incorporating both content and process aspects. The next challenge is to arrive at a practical model to support reflection across all these aspects. The ‘PERHAPS?’ model, Figure 8.3, captures the potential of reflection to transform experience, whilst providing prompts to include both content and process and incorporating scope for individual differences in engagement with the process (McKenzie, 2010b). This model therefore draws on theoretical literature and research findings. The title conveys the speculative nature of reflection and the
possibilities that may arise from engaging in the process. It also suggests an open-ended process, without a clearly defined endpoint, accommodating the recursive quality of previous models. It does not offer an instrumental sequence, or checklist, to be followed, but rather an approach to assist in making sense of experience.

Figure 8.3. PERHAPS? Model of reflection

- **P** - *Pre-empting*: a pre-experience stage, anticipation of events.
- **E** - *Experience*: the event which gives rise to reflection
- **R** - *Reflection*: the process of reviewing and analysing experience.
- **H** - *Holistically*: this is the reminder that the reflection needs to take into account Self, Others and Societal factors (SOS).
- **A** - *Analysis*: the aim of the reflective process is to subject experience to holistic analysis, taking into account the SOS factors mentioned above.
- **P** - *Personal*: reflection may take place personally, through introspection, or journal writing.
- **S** - *Social*: reflection may also take place socially, through discussion with others, which may add further perspectives and insights beyond those gained through personal reflection.
- ?  *What next?*: What are the implications for future action? What future possibilities exist?

Although most models of reflection start with an event or experience, there is some evidence of 'pre-reflection' taking place. As already noted in Chapter 3 (p38-9), Kelly's (1966) experience corollary includes an 'Anticipation' phase, and the interviewees, quoted in Chapter 6 (p145), referred to 'pre-empting' events by thinking ahead. It seems appropriate that a model of reflection should allow this to take place. The PERHAPS? model therefore incorporates a 'Pre-empting' stage in which
individuals may anticipate what is to come and consider possible alternative courses of action. Kelly also refers to 'Investment', as what the individual brings to the experience. He saw this as representing the individual’s pre-existing personal construct system. Drawing on Berger and Luckmann (1966) we can add the influence of the social context, such as ways of labelling and describing experience, institutional practices, political forces and prevailing socio-cultural values and practices. As Monica suggested (p194), individuals will bring their own values and beliefs to any teaching situation and these will affect the way they react to events. The three-dimensional model represents these in the private-public sector. Thus, there are factors to consider prior to any event which may give rise to reflection.

The most common trigger for reflection is an event, or 'Experience', which requires analysis and evaluation after the event. This may be a whole teaching session, a specific incident within such a session, a learning experience, something read or said. Kelly suggests that we compare experiences with our existing view of the world to seek confirmation/ disconfirmation of the way we see things. This may take place by thinking things through (private – personal), by recording events and interpretations of them, in a reflective journal (public - personal). Kelly suggests this process may lead to a revision of our world view, if there is a mis-match between events and our understanding of them. This is also the point at which we may seek the views of others through the discussion of events (social-public). Again, this may be a relatively
simple triangulation to check our view of events, in accordance with Kelly’s commonality corollary (Kelly, 1966; Bannister and Fransella, 1971), or it may represent a deeper search for alternatives ways of conceptualising events to provide some direction in developing new ways of understanding. Here the content of the reflection moves from the intrapersonal to the interpersonal domain. Where events and the interpretation of them are congruent, the reflective cycle is likely to be completed fairly quickly and easily, with relatively superficial engagement. However, where there is a discrepancy between events and their interpretation, the event may be revisited more than once until a suitable resolution is achieved. In this instance, the reflection is likely to be more sustained and the experience probed more deeply. Pope (2003) suggests that if the discrepancy threatens core constructs, change will be resisted – this may generate feelings of discomfort around the process – as interviewees note (p159), reflection is not always easy (Boud et al, 1985b).

The PERHAPS? model emphasises the need to reflect holistically, taking a range of perspectives (Self, Others, Societal) into account to enable a thorough analysis of experience. This means considering one’s own actions, thoughts and feelings and how these are influenced by underpinning personal beliefs and values; considering the actions of others and their perspective on events, including how their beliefs, values and intentions may have contributed to their behaviour as well considering the wider institutional and national context for policy and
practice. Thus the PERHAPS? model identifies the need to subject experience to holistic reflective analysis. The model provides a reminder that reflection can take place personally, though introspection or journal writing, and socially, through discussion or shared writing. Engaging in both personal and social modes of reflection is likely to provide more insights than either alone. Finally, the model offers a link between reflection and action, by asking what has been learned and what implications this has for the future. This may be the suggestion of modifications to practice, or a review of systems and procedures, but it could also encompass imagining future possibilities and the creation of an ideal scenario (Crozier, 2010). The PERHAPS? model therefore offers prompts for deeper engagement with reflection, encompassing intrapersonal, interpersonal and societal content, within both personal and social processes.
Chapter 9

Conclusions

The aim of this study was to explore trainee teachers’ experience of reflection to gain an understanding of why some experience difficulty with course requirements for reflection. Reflection was defined as the process of review and evaluation of an experience to inform future behaviour. This process is conceptualised as a means of making sense of experience drawing on the literature on the personal and social construction of understandings (Kelly, 1966; Berger and Luckmann, 1966).

Two distinct areas of difficulty were identified: individual preferences for engagement with reflection and the use of reflective journals, in addition some individuals expressed uncertainty about whether they were using reflection and/or the journal appropriately. The purpose of the study was to identify effective strategies to support trainee teachers’ development as reflective practitioners and the areas of difficulty are discussed below, with suggestions of how they should be addressed.

The study used questionnaires to obtain a broad overview of trainees’ experience of reflection and to select individuals for interview. The interviewees were teaching across a range of subject areas and had varying prior experience of teaching.
The findings show that the interviewees valued reflection, with most considering they were natural reflectors, although their prior experience of reflection varied. There was support for existing views of reflection, such as Schön's distinction between reflection-in-action and reflection-on-action (Schön, 1983), the idea of reflection arising from situations of uncertainty (Dewey, 1933) and reflection as both an intentional activity and as one not deliberately generated (Bolton, 2001). The interviewees showed considerable metacognitive awareness of their thinking processes and the way they functioned, the type of person they are and their engagement with reflection.

The findings indicate individuals approach reflection differently, supporting Adler's (1991) view that there may not be 'one best way' to promote reflection. In particular, the interviewees' engagement with reflection varies along a personal-social dimension, which can lead to difficulties if course requirements are at variance with individuals' preferred approach. Therefore, to provide optimal support for reflection, a variety of strategies should be offered, so individuals can select those that best suit their preferences.

The use of a reflective journal has been identified as representing an area of difficulty for some individuals. While journals can provide an effective means of supporting the reflective process, for some individuals they were at best, of limited value in promoting reflection and at worst, a hindrance. The interviewees referred to the benefits of discussions with
peers, colleagues and mentors, as well as journal keeping and some combination of these would appear to be most effective.

The findings suggest that course requirements need to allow flexibility to enable individuals to try different techniques and adopt whichever they are most comfortable with. However, clear guidance on such a complex concept as reflection is also essential to address any uncertainties and ensure that individuals understand what they should be doing, but also to give them some metacognitive insights to help them make the most of their reflection (Boyd and Fales, 1983). The PERHAPS? model presented in Chapter 8 draws on findings from the study and the literature to provide a series of prompts to support reflection. The model incorporates both content and process elements and recognises different modes of engagement with reflection, it should therefore fulfil the purpose of providing effective support for reflection.

This research provides a significant contribution to educational theory and practice in several ways:

- The interpretation of reflection, as a means of making sense of experience subject to personal and social factors, draws on theoretical approaches to the construction of understanding (Kelly, 1966; Berger and Luckmann, 1966), but also relates to practical approaches to reflection evident in the interviewees’ responses.

- The recognition that reflection draws on different sources of information acknowledges the complexity of reflection and
identifies the need for a new metaphor. A kaleidoscope is suggested to represent the processes involved more accurately.

- The theoretical framework provides a new means of integrating process and content aspects of reflection evident in previous models and typologies.

- This reconceptualisation also offers a new practical application through the PERHAPS? model, which incorporates process and content and acknowledges different modes of engagement.

The research has implications for professional practice and policy in teacher education as it has used trainees' experience to identify the need to provide different strategies for engagement with reflection, thus accommodating individual preferences. It has also generated a practical model, which presents reflection as open-ended and prompts and reminders, rather than a rigid sequence to be followed (Boud, 2010).

**Final reflections**

My involvement with this research has influenced my thinking about reflection and my practice within teacher education. My research question arose from my experiences with trainees on the Cert Ed/PGCE programme and my desire to gain an understanding of the reasons why some of them experienced problems with reflection. During the research, I have engaged in personal reflection on both my own experience of reflection and that of trainee teachers and others who are required to use reflection. I have also reflected on the role of reflection within the Cert
Ed/PGCE programme that I am involved in, and within the wider context of teacher education and other professional spheres, so my reflection has spanned intrapersonal, interpersonal and societal content. Although I can identify my preferred mode of reflection as personal, whilst conducting the research and analysing the data, I have also engaged in collaborative discussions about the nature and role of reflection with interviewees, groups of trainees, colleagues and conference participants. As a result, I now approach the topic of reflection differently with trainees. I can use the research findings to pre-empt trainees’ problems with reflection. I am much more open about the ways in which reflection may take place and the variety of different models available. I have already begun to use the PERHAPS? model with trainees, and have presented it to colleagues, locally and nationally (McKenzie, 2010b); informal feedback has been favourable and I am developing materials for others who have requested to use the model. The next step is to undertake a formal evaluation of its use, both with trainees and with more experienced practitioners.

The research was undertaken with trainee teachers, but the experience of practicing teachers and teacher educators could add further insights. I have conducted workshops with colleagues and when asked about their engagement with reflection most practicing teachers say they do not keep a reflective journal. Yet many require their students to do so. I too have required students to write a journal, whilst not doing so myself, although I do occasionally feel the need to write in order to work through particular issues. Maybe as experienced practitioners we have moved beyond using
writing as a vehicle for reflection, or maybe many of us never found it particularly useful. Teacher educators play an important role in introducing reflection to trainee teachers and supporting its use, so their own understandings and experience of reflection are likely to influence the ways they present reflection. Therefore, the experience of practising teachers and specifically teacher educators’ experience, represent important areas for future study to enhance our understanding of how best to support trainee teachers.

The research samples a range of trainees’ views on reflection, although individuals with strongly negative views are not represented. Trainees had informally shared negative views of reflection with me, so I didn’t anticipate problems in recruiting such individuals for study. However, I had perhaps underestimated the complexities surrounding my position as a practitioner researcher. Whilst trainees were prepared to share negative views informally the questionnaire responses showed that such individuals were not prepared to discuss their views and experience in a more formal context.

The research must be viewed in relation to my role both as a tutor to some of the trainees on the Certificate in Education/Postgraduate Certificate in Education programmes and the Programme Leader with overall responsibility for the course. Furthermore some trainees who were also colleagues, for whom obtaining a teaching qualification represented a contractual requirement. Despite my attempts to ameliorate the inherent
power relations operating in this context, as noted in Chapter 4, it is likely that most trainees would want to present their experience in a positive light. This may have contributed to the relatively high levels of understanding and value reported for reflection. In addition while those with negative views may have felt able to express these in through anonymous questionnaire responses, they may not have felt able to expose their position in an interview. They may have felt that to reveal a lack of understanding or use of reflection might indirectly influence their course result, despite my assurances to the contrary. Alternatively they may not have wanted to be seen to directly criticise the programme which they knew I was responsible for, although this would give them an opportunity to exercise their power through this form of feedback. However my role as a practitioner researcher also meant that I was in a unique position to be able to access their views (Somekh, 2002; 2010) and be seen as someone who could effect change as a result of their feedback. Engaging in the research undoubtedly influenced my practice and my involvement with my learners (Elliott, 2010).

Future research could use a researcher less immediately identifiable with the programme to concentrate on those who experience significant problems with reflection though trainees might feel unwilling to express their views for a variety of different reasons.

When I started the research the Cert Ed/PGCE programme required trainees to keep a reflective journal. Since the data collection the course
has changed twice, once for periodic revalidation and again in response to the new LLUK regulations. There is currently no requirement for trainees to keep a reflective journal. Although they are required to reflect on their lesson planning, observation feedback and in their Individual Development Plans, this tends to be very practice focused. Future course revision will provide an opportunity to incorporate a variety of approaches to reflection and encourage reflection beyond immediate practice.
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Appendix 1
Pilot questionnaire

Name

1. Do you have any previous experience of using reflection or keeping a reflective journal?

2. Do you think keeping a reflective diary will help you develop your teaching?

3. What form have you chosen to keep your journal?

4. What is your experience so far of:
   
   Reflection?
   
   Keeping a reflective journal?
Appendix 2
Evaluation of the pilot questionnaire

Question 1. Do you have any previous experience of using reflection or keeping a reflective journal?

Although I had intended to use open questions I hadn't given enough thought to the phrasing of this question, which was effectively a closed question. Fortunately most didn't just respond Yes/No, giving details of their experience, as I and anticipated that they would, but I also linked the questionnaire to a tutorial, so was able to check responses to this question. I subsequently modified this question, asking for details.

Question 2. Do you think keeping a reflective journal will help you develop your teaching?

This second question was also effectively a closed question, but again most provided full answers and I was able to explore students' responses during the tutorial. I subsequently added a question for the main study, to ask why they thought they were being asked to keep a reflective journal, to sample their views and also modified this question, with the addition of 'How might it help?'

Question 3. What form have you chosen to keep your journal?

The pilot sample responses varied between typed or handwritten. I added to this section of the questionnaire for the main study to explore when students contributed to their journal. This question didn't really serve any useful purpose for the research, although it could be useful information in relation to the course.

Question 4a/b. What is your experience so far of reflection/keeping a reflective journal?

This appeared to work well with the pilot sample, generating comments about their thoughts on the process of reflection and their experience so far of keeping a journal.
Appendix 3
Revised questionnaire, including Likert items

Name

1. Do you have any previous experience of using reflection or keeping a reflective journal? (If yes, please give details)

2. Why do you think you are being asked to keep a reflective journal?

2. Do you think keeping a reflective diary will help you develop your teaching?
   How might it help?

4. What form have you chosen to keep your journal?

5. When do you contribute to your journal?

6. What is your experience so far of:
   Reflection?
   Keeping a reflective journal?
Please circle the number which relates to your view about each statement. You can use the space below if you wish to make further comments.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Unsure</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I know what I am expected to do when I reflect on my practice.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>I know what I am expected to do when I reflect on my learning</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>I have difficulty with the concept of reflection</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>I do not understand what reflection is</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>I value reflection</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>I do not understand how reflection will help me to develop my practice</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<td>7</td>
<td>Reflection is something which comes naturally to me</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8</td>
<td>Reflection helps me to refine my teaching skills</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<tr>
<td>9</td>
<td>Reflection helps me to consider different ways of doing things</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>10</td>
<td>I find it difficult to make time to reflect</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<tr>
<td>11</td>
<td>I find reflection leads me think about wider educational issues</td>
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<td>2</td>
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<td>4</td>
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<td>12</td>
<td>Keeping a journal helps me to engage in reflection</td>
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<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>13</td>
<td>Keeping a reflective journal will help me to develop my teaching</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>14</td>
<td>I find journal writing difficult</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>15</td>
<td>I find discussions with peers/colleagues help me to reflect</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>16</td>
<td>I think writing a journal is a waste of my time</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Comments

Thank you for your time,
Liz McKenzie
I am undertaking research into trainee teachers’ views on reflection for study I am undertaking with the Open University. I would be grateful if you could respond honestly to the attached questionnaire, which should take 10-15 minutes. All responses will be treated confidentially and the anonymity of participants will be maintained. The written report on the study will be seen by Open University staff, though findings may be disseminated to a wider audience.

Participation is voluntary and although the research concerns your experience on the Cert Ed/PGCE course any views expressed will have no bearing on your assignments or your course results.

Please indicate if you would be prepared to be interviewed to discuss your views on reflection.

YES/NO
Appendix 5
Pilot sample coding categories for questionnaire responses

Prior experience

Yes
Nursing
teaching
other

No

Reasons for journal

Reflection
Learn from experience
Analyse experience
Promote reflection

Course related
Monitor/Show development
Provide evidence of reflection

Practice based
Improve practice
Plan for future practice

How journal may help

Reflection
Learn from experience

Course related
Show progress
Meet course requirements

Practice based
Review/evaluate teaching
Show what works
Identify strengths and weaknesses

When do you contribute?

Every session
Daily
Weekly
‘Critical incidents’
‘Regularly’
When time allows
Experience of reflection so far?

Not good
Unsure/confused
Limited do far
Good/positive/useful

Experience of keeping a journal so far?

Not helpful
Unsure
Helpful/good
Hard to find time
Appendix 6
Main sample questionnaire analysis—with examples of responses within categories

Prior experience:

Yes:
Nursing,
teaching,
Not a journal, but evaluations in lessons
other – included youth work, social work, art students/artists, reflection as part of undergraduate degree, personal reflection, police probationer development portfolio.

No.

Reasons for journal

Record events

Keep a record of my teaching practice (42)
Act as a record (44)
In order to record critical/important events (92)
To record important things that have happened (97)
So we can log and keep a record of the teaching process (100)

Memory aid

Might remind me of things I’ve tried (41)
So we can look back on it (37)
To look back … (27)
Because memory is ok but black and white is better (4)

Reflection
Learn from experience

Learn from good and bad experiences (6)
To learn from my experiences (48)
So we can learn from previous (experience) 24)
To learn from situations (92)
To learn from our mistakes and successes (92)

Analyse experience

What worked and did not (7)
Take a critical look at my practice (60)
Evaluate my own teaching practice (42)
Take a critical view of my teaching experience (43)
To question my experience (44)
Reflecting on events to analyse them (34)
It allows you to criticise yourself (36)
Helps you to analyse yourself (84)
To see your teaching as a third person (4)
To critically evaluate (and learn from) situations (92)
To make us consider our teaching experiences (94)
To analyse incidents that happen (96)
So we can see our reactions to general experiences (98)
To help us see our teaching practice objectively (99)
As a form of self-assessment, critical analysis (103)

Promote reflection

Help to reflect on past work (6)
Reflect on what went well – what didn’t (60)
Reflect on experiences in our daily teaching (49)
To make us think about what we have done (39)
To ensure I think about what I am doing (83)
Encourages me to think about my development (25)
In order for me to gain self-awareness (26)
To make you think about what you have done (28)
To make you think about your practice (29)
To organise my thoughts and memories (97)
To get us into the habit of becoming a ‘reflective practitioner’ (100)
Encourage us to reflect on our practice (101)
As a strategy to develop us as teachers (104)

Course related
Monitor/Show development

To record my self development (62)
Keep a check on progress of teaching (67)
Show improvements over the two years (40)
To monitor progress (44)
To show progress (30)
To show progression (38)
So we can know what we have done right/wrong (79)
To have material to show development of teaching skills (29)
To document our progress (92)

Provide evidence of reflection

To provide evidence of learning (62)
To refer to for assignments (32)
Evidence of an ability to analyse our own practice (1)
To evidence skills and competencies (2)
Course requirement (101)
**Practice based**
**Improve practice**

Amend bad practice (60)
Adapt teaching accordingly (59)
To be able to improve on my weaknesses and enable me to improve (61)
Improving experience for learners (65)
Improve my teaching methods (48)
To establish methods of improvement (401)
To develop better teaching skills (31)
To see areas for improvement (33)
See how we can change a lesson (37)
To identify weaknesses and be in a position to rectify this (80)
In order to improve my teaching (81)
Helps you to improve (84)
To change any problems (27)
To develop good practices (3)
How we can develop them (our teaching experiences) (94)
To develop my teaching skills – to modify behaviour (95)
To develop strategies to turn negatives into positives (96)
To guide our future development (98)
To be able to improve or ‘fine tune’ over time (99)
To develop our skills and abilities (101)
Aids progression towards successful teaching (102)
To develop us as teachers (104)

**Plan for future practice**

Would anything be done differently (7)
Help with planning (44)
Use to make action plans (33)
So we can plan to improve in future (79)
To move forward and make changes (97)
How journal may help

Record events

To record it
As a record of experiences and problems (1)
Records feelings and experiences and learning points (101)

Memory aid

To look back on good and bad sessions (30)
Look back and see how you used to do things (32)
So I can look back over work I have done (35)
It might help me with remembering things I’ve done (37)
To refer to in the future (92)
To look back on our thoughts and feeling (100)
Useful to look back – you think you remember but memory is an odd thing (921) -metacognitive
To use after this year as reference (103)
To look back on early stages (104)

Reflection

Increase self awareness (45)
To develop the process of formal reflection (45)
I organise my thoughts and reflect on how I am doing (81)
It helps sort out your thoughts (84)
It helps me gather my thoughts and prepare myself mentally (26)
To help us to be critical of our practices (93)
It can lead to overthinking (98) - metacognition

Learn from experience

If something went bad(ly) you can write why and aim to fix problems (79)
Change things that may not have worked so well (24)
To learn from mistakes (4)
To learn (93)
Otherwise go blindly without stopping to think (97)
Records experiences to be used to develop practice – not make the same mistake again (101)

Course related

Show progress

It illustrates what has been achieved (38)
To see the changes that may be occurring (100)
You can see progression (102)
You can look back and realise the progress that has been made (104)

Meet course requirements

Achieve the qualification (44)
To reference in assignments (27)

Practice based

Review/evaluate teaching

To critically assess the situation as you rework it (92)
To focus on improving (93)
Make constructive plans for improvement (97)
To identify a pattern (100)
Show what worked, what didn’t, how you felt (101)
Analysing problems (103)

Show what works/problem solve

Show how to further improve (38)
I can use it to problem solve (26)
Can help to identify problems that can be overcome (95)

Identify strengths and weaknesses

I will be able to pick out good and bad points (36)
To show where teaching is weak and strengthen it (80)
To explore my strengths and weaknesses (83)

Therapy/get things off chest

..and for therapy (26)
To get things off (my) chest (27)

Personal?

To increase self esteem and ultimately confidence (95)

When do you contribute?

Every session
Daily
Weekly
'Critical incidents'
'Regularly'
When time allows
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Appendix 7
Focus group discussion content analysis

Content analysis - themes

The role of reflection in developing practice

**Value reflection**

Important (14)
important in ... across your life (1)
I reflect every day on everything I do (14)
I think tutorials are a really good time for reflection (7)

**Role of reflection in relation to practice?**

Develop practice (14)
how you change and grow (1)
Otherwise, ... you’re not growing and developing as a teacher (1)
Not going to evolve (7)
without reflection don’t know what has gone well (9)
looking at your practice and seeing where you went wrong and what you did well (1)
help you identify strengths and weaknesses (11)
being able to identify where the problems lie (5)
think the nature of reflection does help to develop practice (1)
But actually for developing practice, I question it, because, like you I would go with observation (4)
Observations are a brilliant way of developing practice, you get good Feedback and you get constructive feedback (14)
I’d just done this closure and it was all about my reflection, rather than what they’d been learning (9)
Are we thinking about reflecting on um, reflecting on our own practice and in doing so also reflecting on the learners, what they’ve learned (2)

**Personal and social?**

Only journal, not discussions - you’re only ever getting your own Perspective (1)
sometime you need someone from the outside to help you (4)
I couldn’t see that for myself (4)
reflection on your own practice, as far as developing your practice, you could say, is quite limiting (4)
It doesn’t necessarily come up with the answers (11)
I’ve sat and thought about it and thought about it and thought about it, but I can’t come up with an answer (11)
I think that’s the role of the mentor isn’t it, or an observation (15)
but I think the reflection should, um, contain as well, your mentor’s comments (15)
In my head, I might talk to colleagues, I might talk to my students. I’m constantly checking throughout my day (14)
wider factors?
but I think the reflection should, um, contain as well ....the broader picture (15)

Problems with reflection
I think you can, you can start reflecting too much (9)

Role of journal
can you do that through keeping a journal (4)
reflection isn’t the same as journal (11)
you’re writing down and quantifying what you’re doing, your thoughts, putting them down on paper that you can read, (15)
A few weeks later you’re going to forget about it, (15)
helpful to keep a record of it (9)
It provides a reference (6)
I’ve got to write it down (6)
You need a record (4)
you can look in hindsight how your own thinking has developed or how your practice has developed or how a student has developed (4)

problems with journal
For me, keeping a written record is just like...., tying myself up in knots (1)
I still have an issue with keeping a written journal, (1)
a journal is a waste of time for me (14)
from my personal experience, that’s why journals are a complete waste of time (14)
you actually acknowledged that keeping a reflective journal can help you develop practice, what you are talking about are the difficulties of actually keeping a journal (4)

We all reflect?
surely it’s automatic? (9)

should reflect continually (1)

you could be biased (6)

Individual differences?
does that come down to, maybe the sort of person you are? (1)
I’m reflecting all the time. I’m, the sort of person who does reflect on absolutely everything (1)
I think it is a case of each to their own and what works (7)

Model of teaching and learning
this is the generic stuff and this is how it’s going to be taught, this is how it’s going to be done, (6)
they need to have ownership over their learning experience, if they haven’t got that, then they’re not going to be able to engage in the whole of their learning (14) the skill is tailoring it to everybody’s requirements, everybody’s previous knowledge and understanding to make the cognitive link (14) once you’ve taught them the rudiments, you know, I encourage them to develop their own style (7)

Role of colleagues

I find it quite useful is, to go on workshops run by other artists and see how they introduce it and how they wrap it up. (9)

We have a meeting monthly, which is a really good opportunity for all the tutors to sit down and say things like, okay, how’s this part of the syllabus going, (7)

Role of mentors

I think you need your mentor to be part of that, because your mentor is looking out on you, (15)

I’d love to use student feedback, but my mentor, if you like, my sort of boss, and there’s just the two of us working on this course, won’t have it,
Appendix 8
Interview Guide – full version

Interview Guide

Contact students to arrange a mutually convenient time to hold the interview, and ensure that a suitable room is available in the College.

Outline:
• what the interview will cover
• approximately how long it will take and
• assure the student that their responses will be treated confidentially
• ask student for permission to use quotations – anonymously

Opening questions:

Check student is okay, still has time, room is okay etc.

Stage of course:
first/second year, Term 1, 2, 3
Full-time

Current teaching:
Subject
Institution/employer
How many hours
Jobs applied for

As you know I am conducting research into trainee teachers’ experience of reflection. I’d like to start by asking you to talk about some of the comments you made on the questionnaire.

Previous questions

Previous experience of using reflection/keeping a journal

What was that for?
How was what you were expected to do explained to you?
Did you feel clear about what was expected?

What do you understand by the term ‘reflection’ – maybe here, or later, depends on responses to preceding questions.

Why do you think you are being/were asked to keep a reflective journal?
What do you mean by ……
Can you explain a little further ….
Could you give an example of ……

**Do you think keeping a reflective journal has helped/will help you to develop your teaching?**

How might it/do you think it will help?

What do you mean by ……

Can you explain a little further …

Could you give an example of ……

So you think it will …… (represent what respondent has said)

**What form have you chosen to keep your journal?**

Do you hand write it / type it straight on to computer
Keep notes/lesson evaluations
Have you always kept it that way or has it changed?

**When do you write it?**

Why is that?
Have you always …

**How long do you tend to spend writing?**
Do you feel the time is worthwhile?

**How have you found keeping a journal?**
Has it been helpful?

This may lead into consideration of other ways of engaging in reflection
Maybe here explore preferred techniques for reflection – writing a journal, talking to others, feedback from students etc
Or this may come later.

**What is your experience of reflection so far?**

**What do you understand by the term ‘reflection’?**
Do you feel you have a clear idea of what is meant by reflection?

**How have you formed your understanding of ‘reflection’?**
Can you identify any particular sources which have contributed to your views?

**What are your views on the role of reflection in developing practice?**

What do you mean by …
Can you explain a little further …
Could you give an example of ……
So you think it will …… (represent what respondent has said)

**Do/Did you feel that reflection is helping/helped you to develop your practice?**
In what ways ….  
Can you explain a little further ….  
Could you give an example of ……

Link to comments about developing practical teaching skills
(or to questionnaire responses on focus of reflection)
(To explore focus on practical/technical aspects of teaching and classroom management
Linking theory to practice)

**Does your reflection lead you to consider aspects of education beyond your immediate context?**

**Does your reflection involve wider educational issues?**
(to explore consideration of wider influences, curriculum, policy, government initiatives, history of subject area etc)

**What do you see as your role, as a teacher?**
**What are you aiming to do when you teach?**

Can you expand on that …
Could you give an example of ….  

**How do you think learning takes place?**

What is the role of the teacher in promoting learning?
What about the role of the student?

**What do you think has contributed most to your development as a teacher?**

**Is there anything else you would like to say about your experience of reflection?**

**Thank you very much for your time.**

Would you like a copy of the interview transcript once it has been transcribed?
Reassure about anonymity/confidentiality
Check permission to use quotes.
Would you like to be informed of the results of my research?
Appendix 9
Interview short prompt sheet

Opening questions:
Check student is okay,
still has time,
room is okay etc.
Stage of course:
Current teaching:

How have you formed your understanding of ‘reflection’?
Can you identify any particular sources which have contributed to your views?

What are your views on the role of reflection in developing practice?

Do/Did you feel that reflection is helping/helped you to develop your practice?

Does your reflection lead you to consider aspects of education beyond your immediate context?

Does your reflection involve wider educational issues?
(to explore consideration of wider influences, curriculum, policy, government initiatives, history of subject area etc)

What do you see as your role, as a teacher?
What are you aiming to do when you teach?

How do you think learning takes place?

What do you think has contributed most to your development as a teacher?

Is there anything else you would like to say about your experience of reflection?

Thank you very much for your time.
Appendix 10
Interview participant consent information

Dear

I am conducting research into trainee teachers’ experience of reflection for a research degree with the Open University. I have been awarded research funding by the University of Plymouth Higher Education Learning Partnerships Centre of Excellence in Teaching and Learning fund (HELP CETL) to conduct this research.

This research is being conducted independently from the Cert Ed/PGCE course and has no bearing on your course assignments or final course result.

Any views you express will be treated confidentially and the data will be analysed to maintain participants’ anonymity. If quotations are used (from questionnaires or interviews) these will be presented in such a way that the original source cannot be identified and pseudonyms will be used throughout. I may also use elements of written coursework to relate to views expressed in the questionnaires and/or interviews. Again confidentiality and anonymity will be maintained.

Your participation in this research is voluntary and you may refuse to answer questions or withdraw at any point, without penalty. Participation or withdrawal at any stage will be treated confidentially.

The results will be presented in a series of reports to the Open University and the HELP CETL fund and to University of Plymouth partner colleges also running the Cert Ed/PGCE course. Findings may also be published at some point in the future. Participants in the research will be able to read these reports if they wish to do so and can ask to be informed of wider publications. Participants may also read the interview transcript, if they wish, and will be offered the opportunity to comment on the views they have expressed. The findings will be used to review the way reflection is used within the course at the College, and may lead to changes in the ways reflection is presented and the requirements for evidencing reflection.

Although the research is being conducted within the College the information obtained will not be made available within the College, other than through the written reports.

I am interested in your views on the process of reflection and how it relates to your developing practice. I am also interested in your experience of keeping a reflective journal, as required on the Cert Ed/PGCE course. So please respond honestly.

Thank you for your time,

Liz McKenzie
Appendix 11
Interview consent form

Name

I agree to be interviewed about my experience of reflection during the Cert Ed/PGCE course and I understand that all responses will be treated confidentially and my anonymity will be maintained.

I agree to the use of quotations from my expressed views, on the understanding that my views will be treated confidentially and my anonymity will be maintained.

I agree to the use of elements of my written coursework in conjunction with my questionnaire/interview responses. I understand that my views will be treated confidentially and my anonymity will be maintained.

I understand that findings from the research will be presented in reports to Open University staff, to the HELP CETL team at Plymouth and to members of Cert Ed/PGCE staff at the University of Plymouth and its partner Colleges.

I understand that my participation is voluntary and that I may withdraw at any point without penalty and my views will not be used.

Signed .................................................................

Thank you very much for agreeing to be interviewed.

Please indicate below

I would like to read the interview transcript and comment on the views I have expressed.*  Yes/No

I would like to receive copies of research reports.* Yes/No

I would like to be informed of any publications resulting from the research.* Yes/No

*Please provide contact details
Appendix 12
Interview themes analysis

The interview transcripts were analysed to identify themes. Examples of each theme were cut and pasted onto a separate sheet (or sheets)

Main themes
Experience- view of reflection
Use of journal
Personal-social reflection
Practice-wider focus
Model of Learning and Teaching
Link to Identity as a teacher

Additional themes:
Links to theory
Metacognitive awareness
Individual differences
Public-private

<table>
<thead>
<tr>
<th>Theme</th>
<th>Line No</th>
<th>Quotation</th>
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Appendix 13
Full tables for rating scale items presented in chapter 5.

100 individuals completed the questionnaire with rating scale items.

Table 5.1a. Understanding of reflection

<table>
<thead>
<tr>
<th></th>
<th>Agreement %</th>
<th>Unsure %</th>
<th>Disagreement %</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>strongly</td>
<td>agree</td>
<td>total</td>
</tr>
<tr>
<td>I have difficulty with the concept of reflection</td>
<td>3</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>I do not understand what reflection is</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

N = 100

Table 5.2a. Individual experience of reflection

<table>
<thead>
<tr>
<th></th>
<th>Agreement %</th>
<th>Unsure %</th>
<th>Disagreement %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>strongly</td>
<td>agree</td>
<td>total</td>
</tr>
<tr>
<td>Reflection is something which comes naturally to me</td>
<td>21</td>
<td>38</td>
<td>59</td>
</tr>
</tbody>
</table>

N = 100

Table 5.3a. The perceived value of reflection.

<table>
<thead>
<tr>
<th></th>
<th>Agreement %</th>
<th>Unsure %</th>
<th>Disagreement %</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>strongly</td>
<td>agree</td>
<td>total</td>
</tr>
<tr>
<td>I value reflection</td>
<td>25</td>
<td>59</td>
<td>84</td>
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</table>

N = 100

Table 5.4a. Finding time to reflect.

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<th>Agreement %</th>
<th>Unsure %</th>
<th>Disagreement %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>strongly</td>
<td>agree</td>
<td>total</td>
</tr>
<tr>
<td>I find it difficult to make time to reflect</td>
<td>13</td>
<td>45</td>
<td>58</td>
</tr>
</tbody>
</table>

N = 100
Table 5.5a. The application of reflection to practice

<table>
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<tr>
<th>Agreement %</th>
<th>Unsure %</th>
<th>Disagreement %</th>
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</thead>
<tbody>
<tr>
<td>strongly</td>
<td>agree</td>
<td>total</td>
</tr>
<tr>
<td>I know what I am expected to do when I reflect on my practice</td>
<td>12</td>
<td>65</td>
</tr>
<tr>
<td>I do not understand how Reflection will help me to develop my practice</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Reflection helps me to refine my teaching skills</td>
<td>29</td>
<td>53</td>
</tr>
</tbody>
</table>

N = 100

Table 5.6a. Wider Applications of reflection

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<th>Unsure %</th>
<th>Disagreement %</th>
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<tbody>
<tr>
<td>strongly</td>
<td>agree</td>
<td>total</td>
</tr>
<tr>
<td>I know what I am expected to do when I reflect on my learning</td>
<td>7</td>
<td>60</td>
</tr>
<tr>
<td>Reflection helps me to consider different ways of doing things</td>
<td>37</td>
<td>54</td>
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N = 100

Table 5.7a. Personal and social processes of reflection.

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<th>Unsure %</th>
<th>Disagreement %</th>
</tr>
</thead>
<tbody>
<tr>
<td>strongly</td>
<td>agree</td>
<td>total</td>
</tr>
<tr>
<td>I find discussion with peers/colleagues helps me to reflect</td>
<td>39</td>
<td>49</td>
</tr>
</tbody>
</table>

N = 100

Table 5.8a. Reflection in the societal domain.

<table>
<thead>
<tr>
<th>Agreement %</th>
<th>Unsure %</th>
<th>Disagreement %</th>
</tr>
</thead>
<tbody>
<tr>
<td>strongly</td>
<td>agree</td>
<td>total</td>
</tr>
<tr>
<td>I find reflection leads me to think about wider educational issues</td>
<td>7</td>
<td>41</td>
</tr>
</tbody>
</table>

N = 100
### Table 5.9a. The role of the journal

<table>
<thead>
<tr>
<th>Keeping a journal helps me to engage in reflection</th>
<th>Agreement</th>
<th>Unsure</th>
<th>Disagreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree total</td>
<td>18</td>
<td>61</td>
<td>79</td>
</tr>
<tr>
<td>Disagree strongly total</td>
<td>9</td>
<td>2</td>
<td>11</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Keeping a reflective journal will help me to develop my teaching</th>
<th>Agreement</th>
<th>Unsure</th>
<th>Disagreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree total</td>
<td>23</td>
<td>58</td>
<td>81</td>
</tr>
<tr>
<td>Disagree strongly total</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I find journal writing difficult</th>
<th>Agreement</th>
<th>Unsure</th>
<th>Disagreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree total</td>
<td>8</td>
<td>25</td>
<td>33</td>
</tr>
<tr>
<td>Disagree strongly total</td>
<td>43</td>
<td>11</td>
<td>54</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I think writing a journal is a waste of my time</th>
<th>Agreement</th>
<th>Unsure</th>
<th>Disagreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree total</td>
<td>0</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Disagree strongly total</td>
<td>35</td>
<td>41</td>
<td>76</td>
</tr>
</tbody>
</table>

N=100

### Table 5.10a. Prior experience of reflection/reflective journal

<table>
<thead>
<tr>
<th>Prior experience of reflection/reflective journal</th>
<th>Yes</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching</td>
<td>Nursing/</td>
<td>Other</td>
</tr>
<tr>
<td>n.</td>
<td>%</td>
<td>n.</td>
</tr>
<tr>
<td>Questionnaire sample</td>
<td>9</td>
<td>7</td>
</tr>
</tbody>
</table>

N=127