DOCUMENT RESUME

ABSTRACT
        Problematic issues in developing preservice teachers'
capacities for reflection include: distinguishing reflective thinking
from reflective action; immediate versus extended time frames for
reflection; the complexity of critical reflection and the need to
foster it over a considerable period; and the role of problem solving
in reflection. An ongoing investigation into reflection is being
undertaken within the Secondary Bachelor of Education course at the
University of Sydney (Australia), based on student reports and
self-evaluations, videotapes of their teaching, and interviews.
Analysis demonstrated clear evidence of student teachers undertaking
reflection in their final year, with the largest proportion of
reflective units in written reports being descriptive reflection
rather than critical or dialogic reflection. Barriers that hinder
reflective approaches are identified. A framework for conceptualizing
and researching reflection within the context of professional
preparation is proposed. Components of the developmental framework
include: technical reflection, where skills are evaluated in
controlled or simulated situations and immediate feedback is
provided; reflection-on-action, with its three forms being
descriptive, dialogic, and critical; and then reflection-in-action,
based on contextualization of multiple viewpoints. An appendix lists
criteria for the recognition of evidence for different types of
reflective writing. (Contains approximately 70 references.) (JDD)

FACILITATING REFLECTION :

ISSUES AND RESEARCH

Mr Neville Hatton (Senior Lecturer)
and Dr David Smith (Associate Professor)
School of Teaching and Curriculum Studies
The University of Sydney 2006 Australia
Phone: (02) 692 2617

FACILITATING REFLECTION :
ISSUES AND RESEARCH

Neville Hatton and David Smith
Teaching and Curriculum Studies
The University of Sydney

Abstract: Many programs of teacher preparation would claim to be aimed at developing in participants capacities for reflection. However, there are some serious problems associated with fostering reflective approaches, particularly in the preservice context. In this paper, a range of problematic issues will be identified. A progress report is then provided of an ongoing investigation into reflection being undertaken within the Secondary Bachelor of Education course at Sydney.   Finally, a framework for conceptualising and researching reflection within the context of professional preparation will be proposed.

For more than ten years now, 'reflection' and 'critical reflection' have been appearing in descriptions of course designs for preservice teacher education. As demonstrated elsewhere (Smith & Hatton, 1992, 1993 ; Hatton & Smith, in press), these terms often lack sharp definition, and may cover a wide range of approaches. The difficulties of achieving reflection within initial teacher education have been brought sharply into focus in a detailed exploration of seven American programs specifically designed to foster reflective strategies in student teachers (Valli, 1992).

In the relevant literature, a range of problematic issues in relation to reflection have been identified. While Dewey (1933) linked reflective thought to the solution of practical problems, there are still some unresolved difficulties in *distinguishing reflective thinking from reflective action*, (Grant & Zeichner, 1984; Noffke & Brennan, 1988). Most writers do address the complete cycle of professional doing linked with reflection and subsequent modification, as opposed to routine or impulsive action.   In particular, Schon (1983; 1987) holds that professionals must learn how to frame and reframe the complex and ambiguous problems they face, evaluate and test out various interpretations of what is going on, then modify their practice as a result.

Another problem is concerned with *immediate versus extended time frames for reflection,* (Farrah, 1988). Again, Schon (1983; 1987) has contributed the useful contrast between 'reflection-in-action' and 'reflection-on-action'. He allows for and values both, though the former implies that a professional is able to think

consciously about what is happening, and modify actions while they are taking place. At one end of this spectrum, 'technical reflection' (Cruikshank, 1985) is based on fairly immediate and assisted thinking about the application of skills, often through video replay, and in some cases without addressing overall goals. At the other end, there are those who advocate 'critical reflection' (Smith & Lovat, 1991) over a quite extended period, drawing upon a range of perspectives in order to explore alternatives for action. Some argue this form requires a degree of detachment from the particular action, with lengthy deliberation (Boud, Keogh & Walker, 1985; Pugach, 1990)

There are some major difficulties connected with *critical reflection and its development*, (Smyth, 1989; Gore & Zeichner, 1991). Often the term is taken to mean no more than constructive criticism of one's own actions (Calderhead, 1989). But the approaches espoused by Dewey, Zeichner or Smith and their associates are based upon a particular ideology, providing a theoretical framework for reflection which requires the use of sociological, cultural, historical, political, moral, ethical, and/or epistemological perspectives focused upon issues arising from practice (McNamara, 1990; Zeichner & Liston, 1990; Smith & Lovat, 1991). By its very nature, this form of reflecting is complex and demanding, and requires fostering over a considerable period.

A further issue relates to *reflection and problem-solving* (Calderhead, 1989; Adler, 1991). Some indicate by their logic or practice that reflective approaches are limited to gaining a clearer understanding of what has taken place, through group discussion, use of journals, or debriefing, without specific consideration of consequent practical alternatives (Pearson & Smith, 1985). But the majority would argue that reflection is centrally concerned with finding solutions to real problems (Cutler, Cook & Young, 1989). Research into programs specifically designed to foster reflective approaches indicates a low incidence of 'critical' reflection amongst those undergoing initial teacher education (Korthagen & Wubbels, 1991; Valli, 1992; Smith & Hatton, 1993). However, these studies show that other forms of reflection are taking place (Habermas, 1973; Van Manen, 1977), including 'technical' - often employing research -based means for achieving given ends, and 'practical' - involving an open, negotiated examination of both means and ends, along with their underlying assumptions.

Schon's framework can incorporate all kinds of reflection, including 'critical'. Reflection 'in-action' and 'on-action' derive from constructing and reconstructing experience, and provide one means for distinguishing professional from non-professional practice (Gilson, 1989; Feiman-Nemser, 1990). Such reflection may be seen as intuitive knowledge derived from action, and includes the possibility of

taking part in a reflective conversation with one's self, according to personal frames of reference. But the argument that teacher education should take up questions of equity and justice has been strongly made (Cutler, Cook & Young, 1989; Smyth, 1989). It would appear that students should at least be introduced to 'critical reflection' in their initial preparation, for it can be argued such a perspective is unlikely to develop in the busy and demanding world of the modern teacher's work.

Studies of approaches which seek to facilitate reflection

As outlined previously (Smith & Hatton, 1992, 1993, Hatton & Smith in press), numerous approaches are claimed to foster reflection in intending professionals. All are not necessarily appropriate for stimulating reflection, and there is little research evidence to clearly show whether they are effective or not. Four broad strategies can be identified, namely _Action Research Projects_ (Carr & Kemmis, 1986; Pugach, 1990), _Ethnographic and Case Studies_ (Ross, 1989; Stoiber,1990; Sparkes,1991), _Microteaching_ and other _Supervised Practicum Experiences_ (Cruikshank, 1985; Zeichner, 1986; Sparks-Langer & Colton, 1991), and _Structured Curriculum Tasks_ (Beyer, 1984; Ben Peretz, 1984; Smith, 1991). Within these all-encompassing approaches, other more specific techniques may be employed, including various versions of reading fiction and non-fiction (Tama & Peterson, 1991), oral interviews (Andrews & Wheeler, 1990), and writing tasks (Surbeck, Park-Han & Moyer, 1991), which are often based on keeping journals. Other genres have been utilised, such as personal narratives, student metaphors for teaching, or reflective essays drawing on practicum experiences (Connelly & Clandinin, 1988; Bullough, 1989, 1991; Marshall, 1990; Wellington, 1991).

In the literature reviewed for the Sydney project, there were sixteen research studies which investigated the effectiveness of approaches employed to develop in student teachers capacities for reflection. Two were based upon a <u>Reflective Teaching Instrument</u> (Kirby, 1988; Kirby & Teddlie, 1989), which appears to be problem-centred, but mainly technical in its focus. Four studies reported research at a program level (Korthagen, 1985; Korthagen & Wubbles, 1991; Ross, 1989; Sparks-Langer et al., 1990), two used variations on Action Research, (Pugach, 1990; Gore & Zeichner, 1991), and the remainder used one or more of the specific techniques already outlined. Few findings can be related from one study to another, and the common conclusion is that there is little evidence of 'critical reflection' on the part of students, most of whom demonstrate the 'technical' and 'practical' types.

5

While there are the usual questions of design and methodology, several key issues emerged from this detailed review. First, definitions of reflection, especially of the 'critical' form, are often inappropriate or inadequate, and it is clear that the terms are extremely difficult to render operational in questionnaires and other research instruments. Second, the means for gathering and analysing data pose a considerable challenge for researchers, for it is difficult to establish unequivocally that reflection has taken place.

In interpreting their findings, Gore and Zeichner (1991) and Pugach (1990) emphasised the importance of links between metacognition and critical reflection. They suggest that teacher education still reinforces a cultural view of teaching which calls for technical rationality and individualism, failing to establish the political or problematic nature of schooling. It is proposed that deliberate attempts must be made to familiarise students with the literature of critical reflection. Teacher educators need to develop scaffolded interaction (Palinscar, 1986) as a means for modelling the skills of self-monitoring essential to critical reflection. Other writers (Stout, 1989; Wedman, Mahlios & Whitfield, 1989) come to similar conclusions about the need to consciously counter the strong socialisation processes at work.

A decade of research into the SOL Mathematics program in the Netherlands produced very little evidence of 'critical reflection', (Korthagen, 1985; Korthagen & Wubbels, 1991). But the researchers identified two distinctive orientations, one external and non-reflective, the other internal and more reflective, suggesting that some student learning styles may be antithetical to reflection. Those in the latter group think it important to structure situations, ask questions about what is happening and why, find it easy to identify what they want to learn, have sound interpersonal relationships, exhibit personal security and self-efficacy, and demonstrate concern for their impact on student learning, (Fuller and Bown, 1975).

A group using Cruikshank's 'reflective teaching' procedures (Cutler, Cook & Young, 1989) identified mostly evidence of 'technical' and 'practical' reflection. But students did report that they found it was useful being taught and then applying processes for reflecting, though they preferred oral rather than written tasks, and working with someone else, peer cr (preferably) a supervisor. Once again, support is provided for collaborative reflection, and the importance of modelling and coaching through scaffolded dialogue (Pugach, 1990).

For the study undertaken at Sydney University which is reported in this next section, the review of literature led to the formulation of the following, including evaluative questions as well as those of a more theoretical or methodological kind.

- *Have the strategies employed resulted in teacher education students demonstrating evidence of reflective practice?*
- *If so, what types and patterns of reflection can be identified, and what factors seem important in fostering their development?*
- *What strategies appear to be effective in producing reflection, and what are the salient characteristics of such approaches?*
- *How can more effective strategies be developed, and how can the conditions for encouraging reflective practice be improved?*
- *What is the fundamental nature of reflection, and does the nature of evidence change according to types of reflection?*

Researching the impact of strategies designed to foster reflection

The Sydney study involved teacher education students undertaking the four year secondary Bachelor of Education. Half their courses are taken in the Arts, Science or Economics Faculties of the University, with a major sequence (three full years of study) in a subject which they will teach. The other half taken within the Education Faculty entails a major in Education, together with an increasingly demanding sequence of three Professional courses from Year 2 on. Data for the research was collected from the 1991 Year 4 cohort of 26 students, together with the 1992 Year 4 cohort of 34 students. These groups experienced various strategies which might foster reflection, through two common and continuous professional components, namely _Teaching and Learning_, for which the researchers were almost totally responsible, together with _Practicum_, amounting to half the overall course weighting. (The other half involves Curriculum courses in the methodology of particular subjects they will teach, such as English, History, Social Science, Foreign Languages or Mathematics.)

The students undertook in the first semester of Year 3 five fortnighly school-based microteaching sessions, focused upon the basic skills of teaching, such as questioning, reinforcement and explaining (Turney et al., 1983). These were dealt with in the _Teaching and Learning_ coursework, which led into a 15 day _Practicum_ in the middle of the year. They had to complete tasks designed to have them reflect upon their skill development in teaching and classroom management before, during, and after the in-school period. In Year 4, the students engaged in an ongoing reflective process focused at each stage of planning for, implementing, and then evaluating, a unit of work which

7

was taught during a 30 day mid-year *Practicum*. Included were peer interviews in 'critical friend' dyads at the planning stage, as well as written reports derived from the interview data where the student teachers reflected upon the factors which had influenced their thinking and action, especially during implementation and evaluation. The major focus was upon differences between intentions and actual outcomes, and what caused initial plans to differ from subsequent actions, (Smith & Lovat, 1991). This approach combines *Action Research* with *Structured Curriculum Tasks* strategies.

After sustained discussion based on the literature reviewed, the team defined reflection as "deliberate thinking about action with a view to its improvement." The study was designed to investigate the nature of reflection, to define specific forms of reflection, and to evaluate the strategies outlined above in terms of the degree to which they facilitated reflective approaches in student teachers. Data sources were varied as follows, providing for some triangulation of evidence (Smith & Hope, 1992).

- a written report (4000 words) from each student in the 1991 cohort, along with two such reports (6000 words in total) from each 1992 student;
- two self-evaluations, one after the Year 3 practicum from all students, and the other after the Year 4 practicum from a sample of the 1992 cohort;
- two 7 minute videotapes of teaching, one towards the end of the microteaching in Year 3, the other after the Year 4 practicum in 1992 from 13 volunteers ;
- a 20 minute interview with pairs from the 1992 cohort at the end of the year, seeking their evaluation of the various strategies used, together with reactions to a problematic practicum vignette.

From ongoing interaction amongst team members, based upon reading and rereading the written reports, there emerged an operational framework, through a process which illustrates the essentially dynamic relationship between data and theory that is characteristic of research dealing with phenomena like reflection (Smith & Hope, 1992; Smith & Hatton, 1993). The result was identification of four types of writing, three of which have been characterised as different kinds of reflection. Their defining characteristics are set out more fully in Appendix 1 on p.19. In essence, the first one, *descriptive writing*, is not reflective at all, but merely reports literature or events. The second, *descriptive reflection*, does attempt to provide reasons, based often on personal judgment or on students' reading of literature. The third, *dialogic reflection*, is a form of discourse with one's self, an exploration of possible reasons. The fourth, *critical reflection*, involves giving reasons for decisions or events which take account of the broader historical, social and/or political contexts.

8

The team was made up of the two authors, a research assistant, and four third year honours students. Several trial runs helped confirm the procedures which were used to analyse all the written material. Essays were read by one of the team, and units of reflection identified and categorised. A second person then analysed in the same way another unmarked copy. Results were compared, with sustained discussion taking place to resolve differences when they occurred. As the analysis proceeded, it became apparent that within each instance of reflection, students could adopt single or multiple perspectives in accounting for decisions or events, so this was also recorded.

This analysis of written essays demonstrated clear evidence of student teachers in the Sydney University program undertaking reflection in their final year. Only one report from the 1992 cohort showed no evidence of reflection as defined above. The largest number of reflective units coded for any single written piece was 52, and the smallest 2. The average number of reflective units per written report, each the equivalent of 8-12 typed pages, was 19. The largest proportion (60%-70%) of coded units entailed *descriptive reflection*. On the other hand, instances of *critical reflection* were found in only three reports from the 1991 cohort, and only five from the 1992 cohort. The highest proportion (30%-35%) of *dialogic reflection* occurred in the 1992 essays based directly on the 'critical friend' interviews.

Overall then, the most common type of reflection identified was descriptive, although it should be noted that there was a reasonably high incidence (nearly 50%) of multiple perspectives evident. A further pattern that emerged was the embedded nature of the reflective units identified. Within the essays, students would often begin with a unit of descriptive reflection which then led on to dialogic reflection. The descriptive phase often served to establish the context in initially accounting for what took place, providing a basis for a change of stance within the writing, where further possibilities and alternative reasons were explored, usually in a more tentative way.

Issues arising from research into reflection

In this Sydney program of teacher education, a strategy of significance for facilitating the development of reflection is the use of 'critical friend' pairs. All pieces of writing used drew on such interviews, or subsequent analysis of their content. One of those who offered critiques of the American programs considered in the Valli book provides some helpful insights. Richert sees teachers as learners who must construct their own knowledge of teaching, an enterprise full of uncertainties. She stresses the place of *'voice'* in any such process, together with the need to encourage student teachers to dialogue with themselves and others as they attempt to describe, explain, question,

explore and challenge, (Valli, 1992: 189). What she underlines is the need for others to truly listen, a characteristic not common amongst educators, and one well worth developing in preservice students. Even more opportunities than at present for verbal reflection within professional components of the Sydney program should be provided, to encourage self-dialogue forms of reflection which can offer such powerful insights.

It would appear then that one potent strategy for fostering reflective action is to engage with another person in a way which encourages talking with, questioning, even confronting, a trusted other, in order to examine planning for, implementation and evaluation of teaching. It is a technique designed to provide an environment where self-revelation can safely take place. Students are able also to distance themselves from their actions and beliefs, and scrutinise them in the company of a peer with whom they are willing to take risks. Opportunities are thus created for giving voice to one's own thinking while at the same time being heard sympathetically, but in a constructive and critical manner.

The importance of involving others in reflective approaches was also confirmed for the Sydney study through a content analysis of end-of-year evaluations and interviews, in which participants student teachers identified consistently two strategies as being effective in facilitating their own reflection. Both are characterised by a high degree of verbal interaction with trusted others, the first being supervised peer group discussions of videotaped episodes which had taken place during microteaching in Year 3, the second being the tasks based around the 'critical friend' interviews, requiring an analysis of their own perceptions and beliefs. Another feature of these two strategies is the provision of written records, to be used as a subsequent stimulus to further reflection, a feature which will be capitalised on more consciously in future.

Analysis of the videotapes from 13 students of the 1992 cohort provided no additional insights into reflection. What they showed was a sustained use of the basic skills, notably questioning and positive reinforcement, and an increased use of structuring, the strategy of setting a classroom context for what, how and why secondary students will be learning. Their interview comments and many instances of reflection in the essays showed use of the technical skills framework as means for analysing teaching events, as well as providing reasons for what took place. The work on basic skills now occurs in Year 2 of the B.Ed secondary program, with increased emphasis on group interaction in feedback sessions, and on assessment of development and understanding through reflective tasks based on cycles of coursework, peer and picroteaching.

10

In this research project, most evidence for reflection was drawn from written reports where student teachers were asked to reflect upon their processes of developing curriculum. They could if they chose draw upon any relevant journal entries or lesson evaluation records. It is probable that some **reflection-in-action** occurred while students were teaching, on their feet thinking about reasons for what was going on as it happened. Students were also involved in **reflection-on-action** during their practicum, deliberating afterwards about what happened during their lessons, mulling over events soon after they took place. But the essays provide only indirect evidence of either kind of reflection, and no way of distinguishing what is being thought about <u>now</u> in contrast to <u>then</u>. Instances of what was categorised as descriptive writing actually may have stemmed from reflection at or near the time events took place, if only that could have been captured.

In addition, the ways in which criteria for different types of reflection have been derived from both the research and analysis of the actual writing of student teachers to a large extent mandates the construction of text required before reflective forms are recognised, particularly with *dialogic* reflection. Certain syntax and language patterns ensure that a particular unit of reflection is coded accordingly. This kind of reflecting involves stepping back from, mulling over, or tentatively exploring reasons (see Appendix 1, p.19). Examples such as the following were very likely to produce decisions where the unit was coded as this type.

> "...This was quite possibly due to ... Alternatively,..."
> "...The problem here, I believe, was the fact that..."
> "...While it may be true that..."
> "...On the one hand, ..., yet on the other..."
> "...I guess that being in a school like X has made me aware of..."

For text to satisfy requirements, it nearly always had to be in a certain form. The criteria suggest, and may even impose, a particular text construction in order for it to constitute evidence of this kind of reflection. The dialogic form may constitute a genre of reflective writing. This becomes problematic if what is being classified as reflective is not in fact reflection, or if what at present is being passed over is reflective, but goes unrecognised because it does not conform to the genre. It may be that the evidence for reflection is being distorted by students' inability to use particular language forms.

The analysis of written evidence brings up questions about the nature of tasks designed to promote reflection. Although student teachers in the Sydney Program were told that the aim of the reports is to encourage reflection on practice, interviews from the

1992 cohort indicate that expectations of essay writing in the wider institutional context inhibit students' ability and willingness to reflect in work which is to be assessed. Traditional academic genre displays features that often contradict the personal, tentative, or exploratory style of writing which would be identified as dialogically reflective. Equity issues are raised here, because there is some evidence that socio-economic background may facilitate or inhibit the ability to use language in a particular fashion.

Journal or diary writing may allow more opportunities for reflection than traditional essays, but there are difficulties in using such activities as evidence for reflection. While it is claimed students are allowed to find their voice (Freidus, 1991) and make explicit their own thoughts and actions (Andrews & Wheeler, 1990; Wedman, Mahlios & Whitfield, 1989), the effectiveness of such techniques depends on very careful structuring. But serious questions still need to be raised about the veracity and ethics of journal writing which is for assessment. Entries are likely to be altered to meet the perceived requirements of the staff member reading it, rather than to suit the writer's own ends, the original purpose for such writing. Further, much of the writing may be rather personal, reactive, emotive at the time of writing, and not reflective at all. However, journal entries are one source of information amongst others which can be drawn upon for subsequent tasks requiring reflection-on-action.

A number of barriers which hinder reflective approaches can be identified. One is that reflection is not generally associated with teacher's work, which is seen to be about immediate and pragmatic action. It would appear that heavy emphasis on reflective approaches too early in their course has the potential to alienate students, who see as most urgent mastery of the content and skills of teaching, (Hall, 1985; Zeichner, 1990). One point emerging from the study of American programs was the strength and persistence of student teachers' preexisting concepts regarding what they perceive teaching to be really about (Valli, 1992), and such views were expressed by a small number of students taking part in the Sydney study.

Another is that time is required for reflective capacities to develop, so that essential metacognitive skills can be acquired, (Noffke & Brennan, 1988; McNamara, 1990). It is necessary to adopt a developmental approach in programs of teacher education, seeking to address early on survival concerns in the main through technical means. Then such experiences can become the basis for first attempts at descriptive reason-giving. Narrative and biography for instance can create opportunities for moving students on to other forms of reflection (Hall, 1985; Elbaz, 1988; Smith & Hatton, 1993). Drama and role playing are being used increasingly within the Sydney

program as additional means for encouraging over a period development of reflective capacities.

An associated difficulty then is that a suitable and relevant knowledge base needs to be identified, one which helps intending teachers first understand then apply concepts of reflection to their own teaching. Some helpful advice is provided here by Zeichner (Valli, 1992; 161-168), who identifies major perspectives which have guided teacher education. The *academic* tradition (e.g. Shulman, 1987) has helped teachers grasp the essentials of transforming discipline knowledge in order that school students might learn it. The *social efficiency* tradition (e.g. Good, 1990), has assisted teachers by attempting to develop best practice drawn from research. The *developmentalist* tradition (e.g. Piaget, 1967) has stressed teachers understanding and applying how students grow and change in their behaviour and thought patterns. In particular, he singles out the *social reconstructionist* tradition (e.g. Carr & Kemmis, 1986) where teachers should work at changing their own practices, because schools continue to reproduce a society based upon unjust class, race and gender relationships. During their course, Sydney students are exposed to each tradition, though any integration is left largely to individuals as they progress through their four years of study .

Another problem is that likely student reaction to demands for reflection must be anticipated. Responses could include feelings of vulnerability which follow from exposing one's beliefs to others, with a tendency to self-blame for any perceived weaknesses uncovered through reflection (Wildman & Niles, 1987). Such possibilities support a case for collaborative rather than individualistic approaches to reflection, so that a structure is provided within which students can work as 'critical friends' (Dicker, 1990; McNamara, 1990; Smith, 1991). Peer support through student pairs working with each other is central to the Sydney University program, and various strategies for interactive reflection will continue to be emphasised.

Further, issues relating to the structure and ideology of total programs need to be addressed, in order that the development of reflection might be encouraged (Zeichner, 1990; Valli, 1992). A critically reflective approach demands an ideology of teacher education different from the traditional, which usually involves models of 'best practice', emphasis on competencies, and unrecognised conflicts between institution ideals and school socialisation. There is a need to build in changes of emphasis to create conditions for fostering in students different kinds of reflection (Calderhead, 1989; Moore, Zeichner & Liston, 1990). In the Maryland program for instance (Valli, 1992), opposition to the approach being advocated only served to

demonstrate strong staff conceptualisations of what teaching and learning were really all about, and the difficulty of appreciating any alternative views. In the Sydney context, such staffing issues have not arisen so far because of the small-scale nature of the program, but entry numbers have been trebled, which will certainly mean the involvement of more lecturers, with greater potential for conflict.

As a final issue, **assisting teachers to develop reflective skills requires attention.** There is some evidence that reflective capacities can be fostered by employing strategies which provide direct input and modelling, together with experiences which develop metacognitive skills, (Pugach, 1990; Gore & Zeichner, 1991). The Sydney program has not done this in the past, and one change as a result of the study is their identification and cultivation. Students in Year 4 now engage in reading key articles from the literature on reflection, together with studies into its facilitation, clarifying concepts which arise, and applying them in class and pair exercises. They undertake mind-mapping related to reflection, and are introduced to elements of a reflective writing genre. Those who undertake microteaching in Year 2, in addition to being involved in more specific and regular reflection after this school-based activity, will also reflect more systematically post-practicum, through group and written tasks based upon their attempts to teach, along with feedback provided by staff and peers. They will be encouraged also to use data gathered about co-operating teachers' approaches to aspects of classroom management, as well as drawing upon their own practicum experiences and relevant literature (Turney et al., 1992).

The study has identified many issues requiring further research. The authors are at present collecting audiotapes from the 1994 cohort of Year 4 students of their work in 'critical friend' interview pairs, with a view to testing the hypothesis that verbal interactions do encourage the development of reflective capacities, and provide clear evidence of reflection actually occurring because of the important 'other' taking part. Investigating the development of reflective approaches across the professions is also currently being explored with researchers from such fields as nurse education, social work, and youth work. This study would seek to examine developmental aspects of reflection across the professions, together with the longitudinal effects as students move into the first years of working in their chosen profession.

A framework for fostering development of reflection

Since so many programs, though they have different conceptual and ideological bases, endorse the goal of encouraging reflective approaches, Feiman-Nemser (1990) argues now that reflection should be seen as generic professional disposition, a view

Hatton & Smith (1994)   13
                                    14

congruent with that taken by Schon (1983, 1987), Tom (1985), or Eltis and Turney (1992). But whichever way reflection is seen, the problem remains of whether or not its development can be fostered in intending professionals through programs of preservice preparation. The case studies considered by Valli attempted to address many of the issues already identified above. These programs all concentrated upon aspects of professional preparation, acknowledging the difficulty of influencing other important parts of degree courses, especially discipline or content studies. In general, they involved a clear underlying rationale, with attempts through time-consuming planning and review to convince staff they should become involved in an all-embracing approach to teacher preparation. In several of them, departures from the initial position were forced by internal staff opposition or radical external intervention, (at Houston, for instance, Perot's massive legislated changes to education in Texas).

All programs considered however meet Valli's claim (1992, xxv). "They represent current thinking in the field; programs which treat reflection as an important and complex construct." Amongst major features shared across them are the following. These constitute a set of principles which are also characteristic of the Sydney course design for intending secondary teachers.

a)   *concern with the development in student teachers of a personal*
       style and philosophy of teaching, including ethical dimensions;

b)   *use of action research or enquiry-based approaches to investigate*
       and improve teaching in a supportive environment;

c)   *recognition of the problematic nature of schooling,*   *including*
       classroom and curriculum decision-making;

d)   *sensitivity to contexts for teaching. and in particular, to the range*
       of school students' backgrounds, abilities, and characteristics;

e)   *built-in cycles involving preparation for practicum action, data*
       collection about what happened, reflection upon it, and possible
       (often 'if-then') modifications;

f)   *ongoing monitoring of program implementation, with careful attempts*
       to provide some evidence of their outcomes and impact;

g)   *techniques such as microteaching to build a repertoire of skills,*
       journalling to encourage recording and self-evaluation, and regular
       dialogues among peers, staff and/or teachers to clarify issues
       and value positions.

Sparks-Langer (Valli, 1992; 147) identifies three distinctive approaches to teaching and teacher education., each of which may be related to Van Manen's levels of reflection, or to the descriptive, dialogic and critical types identified in the Sydney

study. The *Cognitive* utilises studies of teachers' information processing and decision making. The *Narrative* has teachers telling their own stories through problem framing, naturalistic enquiry and case studies. The *Critical* form requires teachers to use ethical and moral reasoning, taking account of the social and political contexts. She suggests these are alternative ways of examining and understanding professional work, approaches which may be used to tackle teaching where knowledge is so partial and fragmented. The Sydney program will continue to take a similar eclectic line, introducing students to research on teaching and classroom skills, to an undestanding of teacher roles through enactment, and to teachers' planning processes, along with reviews of studies into reflection. The curriculum task as outlined seems an ideal way to have individuals reflect towards the end of their program upon their own views of teaching, utilising critical and other perspectives they may have gained.

Drawing the threads together, Valli addresses the issue of whether there are discrete models of reflection, or rather various levels, and chooses to side with Van Manen (1977). Her hierarchy proposes six discrete and different levels, from the lowest, (1) behavioural, through to (2) technical decision making, then (3) reflection in action, (4) deliberative, (5) personalistic, and on to (6) critical. Based upon the literature reviewed, and the data so far collected, the authors hold that there are several fundamental flaws with this conception. **Reflection-in-action** is put at level 3. But from Schon's own description, this appears to be the most complex and demanding kind of reflection, calling for multiple types and perspectives to be applied during an unfolding professional situation. It is recognised that such an approach to reflection develops only as a consequence of considerable experience, (Schon, 1983). It seems by nature to be substantially different in kind from the other forms, which all involve **reflection-on-action** some time after a particular event. Evidence for reflecting during action would be hard to gather by traditional research means. But experienced professionals can recall and describe the reflective processes that were going through their heads while an event was occurring.

The Sydney data indicate that in the preservice context, examples of critical reflection were often brief and superficial. Yet many instances of dialogic and descriptive reflection were complex, sustained, multi-dimensional and insightful. In other words,there is evidence for distinct forms of reflection, different because of their defining characteristics, including goals and content, degrees of tentativeness, written versus verbal, and possibly genre. What may be hierarchical is a developmental sequence, where the beginner starts out with the relatively simplistic or partial technical type, then works through different forms of reflecting on action to the

16

desired end point of a professional able to undertake reflection while action is taking place. The key notions are summarised in Figure 1 on p.18.

This framework recognises that an ideal end-point for fostering reflective approaches is the eventual development of a capacity to undertake reflection-in-action, which here is conceived of as the most demanding type of reflecting upon one's own practice, calling for the ability to apply appropriate but qualitatively distinctive kinds of reflection (namely *technical*, *descriptive*, *dialogic*, or *critical*) to a given situation as it is unfolding. The professional practitioner is able consciously to think about an action as it occurs, making sense of what is happening and shaping successive practical steps using multiple viewpoints as appropriate.

It also acknowledges that in many professional preservice programs the basic skills are common and legitimate starting points for the neophyte to enter any professional practice context, then survive and operate there with safety and competence. They address the concerns students have about themselves and their ability to cope with the task (Fuller, 1970). Usually the generic competencies used early on in professional programs are drawn from a base of research and theory, are seen to be important by the profession, and are sought out by students anxious to make a successful beginning, especially in field or practicum contexts. First professional practice experiences often focus on *technical* reflection, where skills are evaluated in rather controlled or simulated situations, and immediate feedback is provided to foster confidence and competence.

From such a starting point which addresses the immediate and pressing concerns of students, it is possible to move on and create learning situations which encourage the development of other reflective approaches, taking account of the factors which impact upon the practical context, often using the technical competencies as a framework for analysing performance in increasingly demanding practicum situations (Hatton, Owens & Powell, 1994). The intending professional gradually becomes more aware of the impact of his or her actions upon the client, in this case the students being taught. For reflection-on-action, three distinctive forms have been identified in this study, in large measure agreeing with similar categories outlined by others who have considered reflection, namely *descriptive*, *dialogic* and *critical*.

They are placed in the above order to indicate a perceived developmental sequence (Kagan, 1992). In other words, students appear most readily to move on from technical to descriptive reflective activities, becoming more able to give a range of reasons for acting as they did. When they become more aware of the problematic

nature of professional action, they begin a rather exploratory and tentative examination of why things occur the way they do, here termed dialogic reflecting. The use of critical perspectives depends on development of metacognitive skills alongside a grasp and acceptance of particular ideological frameworks, and in most preservice studies, is not a very common occurrence. But critical dimensions must be fostered from the start, for teaching is a moral pursuit concerned with means and ends.

This represents a starting position for conceptualising reflection and its development, from which it has been argued that there are five distinctive forms of reflection which can be clearly identified. Each is seen to be useful, of value in its own right, and in fact reflection-in-action involves application of the others as appropriate to an unfolding situation. But they do appear to be developmental, in the sense that the technical form is a useful starting point addressing the concerns of students, who can then be encouraged to move on from that basis to understanding and using the other forms of reflection-on-action. The *descriptive* it would appear from this study is more easily mastered and utilised that either the exploratory *dialogic* or demanding *critical* forms, both of which require knowledge and experiential bases that take some time to develop.

18

Figure 1. TYPES OF REFLECTION RELATED TO CONCERNS
(Fuller, 1970; Valli, 1992; Smith & Hatton, 1993)

Reflection Type	Nature of Reflection	Possible Content
'Reflection-in-action' (Schon, 1983, 1987) addressing IMPACT concerns after some experience in the profession	5 Contextualization of multiple viewpoints drawing on any of the possibilities 1-4 below applied to situations as they are actually taking place	Dealing with on-the-spot professional problems as they arise, (thinking can be recalled and then shared with others later)
Reflection-on-action (Schon, 1983; Smith & Lovat, 1990; Smith & Hatton, 1992, 1993) addressing TASK and IMPACT concerns in the later stages of a preservice program	4 Critical (social reconstructionist), seeing as problematic, according to ethical criteria, the goals and practices of one's profession	Thinking about the effects upon others of one's actions, taking account of social, political and/or cultural forces (can be shared)
	3 Dialogic (deliberative, cognitive, narrative), weighing competing claims and viewpoints, and then exploring alternative solutions	Hearing one's own voice (alone or with another) exploring alternative ways to solve problems in a professional situation
	2 Descriptive (social efficiency, developmental, personalistic), seeking what is seen as 'best possible' practice	Analysing one's performance in the professional role (probably alone), giving reasons for actions taken
Technical rationality (Schon, 1983; Shulman, 1988; Van Manen, 1977), addressing SELF and TASK concerns early in a program which prepares individuals for entry into a profession	1 Technical (decision-making about immediate behaviours or skills), drawn from a given research/theory base, but always interpreted in light of personal worries and previous experience	Beginning to examine (usually with peers) one's use of essential skills or generic competencies as often applied in controlled, small scale settings

19

APPENDIX 1
Criteria for the Recognition of Evidence for
Different Types of Reflective Writing

<u>Descriptive writing</u>
- <u>Not</u> reflective.
- Description of events that occurred/report of literature.
- No attempt to provide reasons/justification for events.

<u>Descriptive reflection</u>
- Reflective, not only a description of events but some attempt to provide reason/justification for events or actions but in a reportive or descriptive way.
  eg, 'I chose this problem solving activity because I believe that students should be active rather than passive learners'.
- Recognition of <u>alternate</u> viewpoints in the research and literature which are reported.
  eg, 'Tyler (1949), because of the assumptions on which his approach rests suggests that the curriculum process should begin with objectives. Yinger (1979), on the other hand argues that the 'task' is the starting point.'
- Two forms:-
  (a) Reflection based generally on one perspective/factor as rationale.
  (b) Reflection is based on the recognition of multiple factors and perspectives.

<u>Dialogic reflection</u>
- Demonstrates a 'stepping back' from the events/actions leading to a different level of mulling about, discourse with self and exploring the experience, events and actions using qualities of judgement and possible alternatives for explaining and hypothesising.
- Such reflection is analytical or/and integrative of factors and perspectives and may recognise inconsistencies in attempting to provide rationales and critique, eg, 'While I had planned to use mainly written text materials I became aware very quickly that a number of students did not respond to these. Thinking about this now there may have been several reasons for this. A number of the students, while reasonably proficient in English, even though they had been NESB learners, may still have lacked some confidence in handling the level of language in the text. Alternatively a number of students may have been visual and tactile learners. In any case I found that I had to employ more concrete activities in my teaching.'
- Two forms, as in (a) and (b) above

<u>Critical reflection</u>
- Demonstrates an awareness that actions and events are not only located in, and explicable by, reference to multiple perspectives but are located in, and influenced by, multiple historical, and socio-political contexts.
  eg, 'What must be recognised, however, is that the issues of student management experienced with this class can only be understood within the wider structural locations of power relationships established between teachers and students in schools as social institutions based upon the principle of control'.
  (Smith 1992).

BIBLIOGRAPHY

Adler, S. (1991). The Reflective Practitioner and the Curriculum of Teacher Education. Journal of Education for Teaching 17(2), 139-150

Andrews, S. & Wheeler, P. (1990). Tracing the Effects of Reflective Classroom Practice. Paper presented at the Annual Meeting of the National Reading Conference, Florida, November.

Ben-Peretz, M. (1984). Curriculum Theory and Practice in Teacher Education. In L. Katz & J. Raths (eds), Advances in Teacher Education, 1. New Jersey: Ablex.

Beyer, L. (1984). Field experience, ideology, and the development of critical reflectivity. Journal of Teacher Education, 35(3), 36-41.

Boud, D., Keogh, M., and Walker, D. (1985). Reflection: Turning Experience into Learning. London: Kogan Page

Bullough, R. (1991). Exploring Personal Teaching Metaphors in Preservice Teacher Education. Journal of Teacher Education, 42(1) 43-51.

Bullough, R. (1989). Teacher Education and Teacher Reflectivity. Journal of Teacher Education, March-April, 15-21.

Calderhead, J. (1989). Reflective Teaching and Teacher Education. Teaching and Teacher Education, 5(1), 43-51.

Carr, W. and Kemmis, S. (1986). Becoming Critical: Education, Knowledge and Action Research. London: Falmer Press.

Connelly, F. & Clandinin, D. (1988). Teachers as Curriculum Planners: Narratives of Experience. New York: Teachers College Press.

Cruickshank, D., Kennedy, J., Williams, E., Holton, J. and Faye, E. (1981). Evaluation of Reflective Teaching Outcomes. Journal of Educational Research. 85(1), 26-32.

Cruickshank, D. (1985). Uses and Benefits of Reflective Teaching. Phi Delta Kappan, June, 704-6.

Cutler, B., Cook, P. & Young, J. (1989). The Empowerment of Preservice Teachers Through Reflective Teaching. Paper presented at the Annual Meeting of the Association of Teacher Educators, St Louis, February.

Dewey, J. (1933). How We Think: A restatement of the relation of reflective thinking to the educative process. Boston: D.C. Heath.

Dicker, M. (1990). Using Action Research to Navigate an Unfamiliar Teaching Assignment. Theory into Practice, 29(3), 203-8.

Elbaz, F. (1988). Critical Reflection on Teaching: insights from Freire. Journal of Education for Teaching, 14(2), 171-181.

Eltis, K. & Turney, C. (1992). Generic Competencies for Beginning Teachers. Draft Report for the National Project on the Quality of Teaching and Learning.

Farrah, H. (1988). The Reflective Thought Process: John Dewey Re-Visited. Journal of Creative Behaviour, 22(1), 1-8.

Feiman-Nemser, S. (1990). Teacher Preparation: Structural and Conceptual Alternatives. In W.T. Houston (ed) Handbook of Research on Teacher Education, New York, McMillan.

Freidus, H. (1991). Critical Issues in the Curriculum of Teacher Education Programs. Paper presented at the Annual Meeting of the AERA, Chicago, April.

Fuller, F. and Bown, O. (1975). Becoming a Teacher. In K Ryan (ed) Teacher Education: The 74th Yearbook of the National Society for the Study of Education, Part II, Chicago: University of Chicago, 25-52.

Fuller, F. (1970). Personalized Education for Teachers: An Introduction for Teacher Educators, Report No. 001 Austin: The University of Texas, Research and Development Centre for Teacher Education.

Gilson, J. (1989). Reconstructive Reflective Teaching: A Review of The Literature. ED 327 481.

21

Good, T. (1990). Building the Knowledge Base of Teaching. In D. Dill (ed) <u>What Teachers Need To Know</u>, San Francisco: Josgey Brass, 17-75.

Gore, J. & Zeichner, K. (1991). Action Research and Reflective Teaching in Preservice Teacher Education: A Case Study from the United States. <u>Teaching and Teacher Education</u>, 7(2), 119-136.

Grant, C. & Zeichner, K. (1984). On Becoming a Reflective Teacher. In C. Grant (ed,.) <u>Preparing for Reflective Teaching</u>, Boston: Allyn & Bacon.

Habermas, J. (1973). <u>Knowledge and Human Interests</u>. London: Heinemann.

Hall, G. (1985). A Stages of Concern Approach to Teacher Education. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago.

Hatton, N. & Smith, D. (in press, 1995) Reflection in Teacher Education: Towards Definition and Implementation. <u>Teaching and Teacher Education</u>,11(1)

Hatton, N, Owens, L. & Powell, A. (1994) Towards a Framework for Professional Preparation: lessons from teacher and nurse education, <u>The Vocational Aspect of Education</u>, 46:1 61-79

Houston, W. (1988). Reflecting on Reflection. In Teacher Education, in H. Waxman et. al., <u>Images of Reflection in Teacher Education</u>, Virginia: ATE, 7-9.

Kagan, D. (1992). Professional Growth among Preservice and Beginning Teachers. <u>Review of Educational Research</u>, 62(2), 129-169.

Kirby, P. (1988). Reflective Teaching and Teacher Effectiveness: Measurement Considerations. ED 303506.

Kirby, P. & Teddlie, C. (1989). Development of the Reflective Teaching Instrument. <u>Journal of Research and Development in Education</u>, 22(4), 45-51.

Korthagen, F. (1985). Reflective Teaching and Preservice Teacher Education in the Netherlands. <u>Journal of Teacher Education</u>, September-October, 11-15.

Korthagen, F. & Wubbels, T. (1991). Characteristics of Reflective Practitioners: Towards an Operationalization of the Concept of Reflection. Paper presented at the Annual Meeting of the AERA, Chicago, April.

McNamara, D. (1990). Research on Teachers' Thinking: its contribution to educating student teachers to think critically. <u>Journal of Education for Teaching</u>. 16(2), 147-160.

Marshall, H. (1990). Metaphor as an Instructional Tool in Encouraging Student Teacher Reflection. <u>Theory into Practice</u>, 29(2), 128-132.

Noffke, S. & Brennan, M. (1988). 'The Dimensions of Reflection: A Conceptual and Contextual Analysis'. Paper presented at the Annual Meeting of the AERA, New Orleans, April

Palinscar, A. (1986). The Role of Dialogue in Providing Scaffolded Instruction. <u>Educational Psychologist</u>, 21(142), 73-98.

Piaget, J. (1967). <u>Six Psychological Studies</u>, New York: Random House.

Pugach, M. (1990). Self-Study: The Genesis of Reflection in Novice Teachers. Paper presented at the Annual Meeting of the AERA, Boston, April,

Ross, D. (1989). First Steps in Developing a Reflective Approach. <u>Journal of Teacher Education</u>, 40, 22-30.

Schon, D. (1983). <u>The Reflective Practitioner: How Professionals Think in Action</u>. New York: Basic Books.

Schon, D. (1987). <u>Educating the reflective practitioner: Toward a new design for Teaching and Learning in the Professions</u>. San Francisco: Jossey Bass.

Shulman, L. (1987). Knowledge and Teaching: Foundations of the New Reform, <u>Harvard Educational Review</u>, 57, 1-22.

Smith, D. (1991). Educating the Reflective Practitioner in Curriculum. <u>Curriculum</u> 12 (2), 115-124.

Smith, D. & Hope, J. (1992). <u>The Health Professional as Researcher</u>. Wentworth Falls: Social Science Press.

Smith, D. & Hatton, N. (1993). Reflection in Teacher Education: a Study in Progress. <u>Education Research and Perspectives</u>, The University of Western Australia, 20(1), 13-23.

22

Smith, D. & Hatton, N. (1992). Towards Critical Reflection in Teacher Education. Paper presented to the Annual Conference of the Australian Teacher Education Association, Ballina, July.

Smith, D. & Lovat, T. (1991). Curriculum: Action on Reflection. Wentworth Falls: Social Science Press (2nd edition).

Smyth, J. (1989). Developing and Sustaining Critical Reflection in Teacher Education. Journal of Teacher Education March-April, 2-9.

Sparkes, A. (1991). The Culture of Teaching, Critical Relfection and Change: Possibilities and Problems. Educational Management and Administration, 19(1), 4-19.

Sparks-Langer, G. & Colton, A. (1991). Synthesis of Research on Teachers' Reflective Thinking. Educational Leadership, March 37-44.

Sparks-Langer, G., Simmons, J., Pasch, M., Colton, A. & Starko, A. (1990). Reflective Pedagogical Thinking: How can we Promote It and Measure It? Journal of Teacher Education, 41(4), 23-32.

Stoiber, K. (1990). The Effect of Technical and Reflective Preservice Instruction on Pedagogical Reasoning and Problem Solving. Journal of Teacher Education, March-April, 42(2), 131-39.

Stout, C. (1989). Teachers' Views of the Emphasis on Reflective Teaching Skills during their Student Teaching. Elementary School Journal, 89(4), 511-27.

Surbeck, E., Park Han, E. & Moyer, J. (1991). Assessing Reflective Responses in Journals. Educational Leadership, March, 25-27.

Tama, M. & Peterson, K. (1991). Achieving Reflectivity Through Literature. Educational Leadership, March, 22-24.

Tom, A. (1985). Inquiring into Inquiry-oriented Teacher Education. Journal of Teacher Education, 36(5), 35-44.

Turney, C., Eltis, K.J., Hatton, N., Owens, L.C., Towler, J. & Wright, R. (1983) Sydney Micro Skills Redeveloped, Series 1 (Reinforcement, Basic Questioning, Variability) Sydney: University Press

Turney, C., Eltis, K.J., Hatton, N., Owens, L.C., Towler, J. and Wright, R. (1983) Sydney Micro Skills Redeveloped, Series 2 (Explaining, Introductory Procedures and Closure, Advanced Questioning) Sydney: University Press

Turney, C., Hatton, N., Laws, K., Sinclair, K. and Smith, D. Educational Management Roles and Tasks: The Classroom Manager. Sydney: Allen & Unwin

Valli, L. (1992). Reflective Teacher Education: cases and critiques, Albany: University of New York Press.

Van Manen, M. (1977). Linking Ways of Knowing with Ways of Being Practical. Curriculum Inquiry, 6, 205-28.

Waxman, H., Freiberg, H., Vaughan, J. & Weil, M. (1988). Images of Reflection in Teacher Education, Reston, Virginia: Association of Teacher Educators.

Wedman, J., Mahlios, M. & Whitefield, J. (1989). Perceptual Differences Regarding the Implementation of An Inquiry-Oriented Student Teaching Curriculum. Journal of Research and Development in Education, 22(4), 29-35.

Wellington, B. (1991). The Promise of Reflective Practice. Educational Leadership, March 4-5.

Wildman, T. & Niles, J. (1987). Reflective Teachers: Tensions between Abstractions and Realities. Journal of Teacher Education. July-August,. 25-31.

Zeichner, K. (1990). Changing Directions in the Practicum: looking ahead to the 1990's. Journal of Education for Teaching, 16(2), 105-131.

Zeichner, K. (1986). Preparing Reflective Teachers: An Overview of Instructional Strategies which have been employed in Preservice Teacher Education. International Journal of Educational Research, II (5), 565-75.

Zeichner, K. & Liston, D. (1990). Traditions of Reform and Reflective Teaching in US Teacher Education, Michigan: National Centre for Research in Teacher Education, Michigan State University.

Zeichner, K. & Liston, D. (1987). Teaching Student Teachers to Reflect. Harvard Educational Review, 57(1), 23-48.