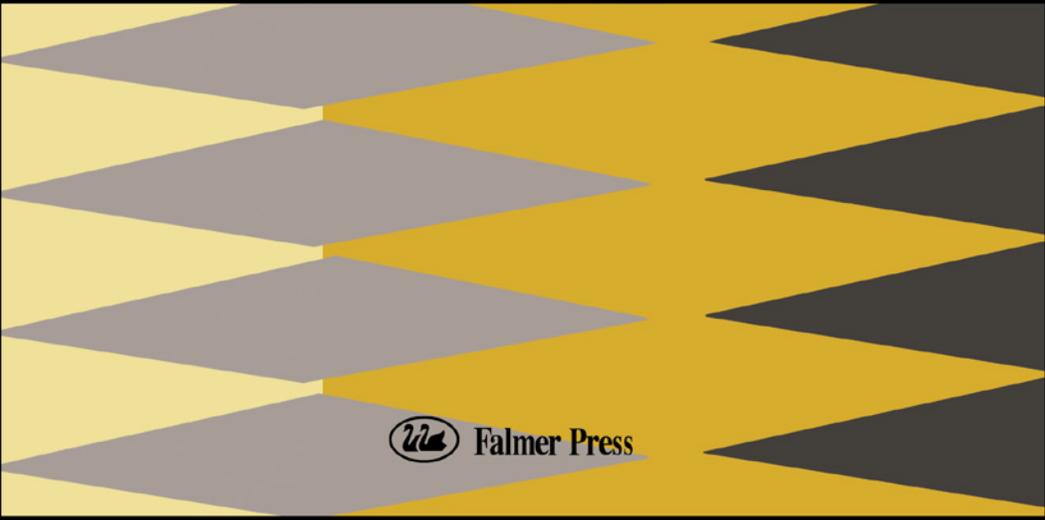


# Developing Reflective Practice:

Learning about  
Teaching and Learning  
through Modelling



 Falmer Press

**John Loughran**

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For all of the time, help, support and encouragement, thank you to Dick  
Gunstone and especially to Airlie.

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*J. John Loughran*



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*Part 1*  
*Conceptualizing Reflection*



# *Chapter 1*

## **An Introduction to Thinking about Teaching**

Teaching and learning about teaching are demanding tasks because they centre on complex, interrelated sets of thoughts and actions, all of which may be approached in a number of ways. This is true from the perspectives of both student-teachers and teacher educators. Therefore, in teaching, there is not necessarily one way of doing something. The more proficient one becomes in the skills of teaching, the more an understanding of the relationship between teaching and learning may influence practice, and the more deliberately a teacher considers his or her actions the more difficult it is to be sure that there is one right approach to teaching, or teaching about teaching.

Because of the complexities of teaching and learning about teaching, various approaches to pre-service teacher education have evolved over the years. However, one aspect of teacher education that continually receives attention in both curriculum and research is the way teachers think about their practice. Since at least the time of Dewey, such thinking about practice has been termed reflection and in teacher education courses there has been a focus on developing reflective practitioners. Programs designed to 'make' reflective practitioners have been vigorously pursued in pre-service and in-service education. One reason for this is the perceived common-sense link between reflection and learning, hence the value of its use in teaching and teacher education.

Reflection is an important human activity in which people recapture their experience, think about it, mull it over and evaluate it. It is this working with experience that is important in learning. The capacity to reflect is developed to different stages in different people and it may be this ability which characterizes those who learn effectively from experience. (Boud, Keogh and Walker, 1985, p. 19)

But how might reflection be conceptualized and how might a teacher become a reflective practitioner?

In Dewey's (1933) revised edition of *How We Think* he clearly states what he defines as reflective thinking. In so doing, it becomes immediately obvious why reflection is so central to teaching and learning.

*Reflective* thinking, in distinction from other operations to which we apply the name of thought, involves (1) a state of doubt, hesitation, perplexity, mental difficulty, in which thinking originates, and (2) an act of searching, hunting, inquiring, to find material that will resolve the doubt, settle and dispose of the perplexity. (Dewey, 1933, p. 12)

In illustrating the utility of reflection, he describes the relationship between reflection and some of the attributes of teaching and learning. In many ways his writings could equally be an appropriate preface to some modern day studies into the enhancement of teachers' professional knowledge and student learning (e.g., Project to Enhance Effective Learning (PEEL) project, Baird and Mitchell, 1986; Baird and Northfield, 1992). Dewey has much to say about searching for a balance between teaching that is transmissive as opposed to that which is solely student-centred, and how a reasoned approach to teaching by reflecting on that balance might impact on student learning.

Dewey writes in a manner which builds an argument from opposing view points in order to demonstrate both the strengths and the weaknesses of the contrary positions. He then introduces his views in terms of a balance between the two to show that the best value is gained by considering alternatives rather than dogmatically adhering to one view or another. He therefore illustrates well how dichotomous views in relation to teaching and learning are counterproductive and how the use of reflection for stimulating and directing thinking can bridge the dichotomy. Although the dichotomy is a wonderful rhetorical device designed to capture attention and to sharpen the lines of argument (Shulman, 1988), in reality, teaching and learning are not so readily separated into such distinct boxes. Reflection is a process that may be applied in puzzling situations to help the learner make better sense of the information at hand, and to enable the teacher to guide and direct learning in appropriate ways. The value of reflection in teaching and learning is that it encourages one to view problems from different perspectives.

Dewey sees reflection as a way of helping teachers to use their artful skills to help students learn in meaningful ways, thus leading to genuine understanding. Through this, the teacher is then able to 'supply the conditions that will arouse intellectual responses: a crucial test...of his art as a teacher' (1933, p. 260). To supply the appropriate conditions, the artful teacher needs to 'cultivate the attitudes that are favourable to the use of the best methods of inquiry and testing' (p. 29). By cultivating these attitudes, preparedness for, and use of reflection, might be enhanced. It is this view of reflection that I have adopted as the touchstone (Walker and Evers, 1984) for my teaching and learning and that of my student-teachers.

Dewey (1933) outlined three attitudes that he considered important in predisposing an individual to reflect. He continually demonstrates through his writing that it is not sufficient to 'know', there also needs to be an accompanying desire to 'apply'. The attitudes which he sees as important in securing the adoption and use of reflection are open-mindedness, whole-heartedness and responsibility.

Open-mindedness, as the term suggests, is the ability to consider problems in new and different ways, to be open to new ideas and thoughts that one may not have previously entertained. To be open-minded is to be ready to listen to more sides than one, to be an active listener, to be prepared and able to hear thinking that may be contrary to one's own, and to be able to admit that a previously held belief may in fact be wrong.

Whole-heartedness is displayed when one is thoroughly involved in a subject or cause. It is being enticed and engaged by thinking. It is associated with experiencing a flood of ideas and thoughts. Interest is maintained and ideas are sought in ways in which an enthusiasm and desire for knowing is enacted. 'A teacher who arouses such an enthusiasm in his pupils has done something that no amount of formalized method, no

matter how correct, can accomplish' (Dewey, 1933, p. 32).

Responsibility is bound up in the need to consider the consequences of one's actions. It is the need to know why; to seek the meaning in what is being learnt. Intellectual responsibility underpins knowing why something is worth believing. Responsibility is often thought of as a moral trait, but it is equally important as an intellectual resource.

Possession of these attitudes is important if learning is to be embarked upon in a considered and thoughtful way. Therefore, cultivating these attitudes as essential constituents of a readiness for reflection is clearly valuable in pre-service teacher education.

Dewey characterized reflection as comprising five phases. The phases need not necessarily occur in any particular order but should fit together to form the process of reflective thinking. The five phases are suggestions, problem, hypothesis, reasoning and testing.

Suggestions are the ideas or possibilities which spring to mind when one is initially confronted by a puzzling situation. The more suggestions available, the greater the need to suspend judgment and to consider each in an appropriate manner. Therefore, suggestions are an impetus for further inquiry.

Problem or intellectualization is when the puzzle is seen as a whole rather than as small or discrete entities on their own. It is seeing 'the big picture' and recognizing the real cause for concern. It is understanding the perplexity of a situation more precisely so that courses of action may be more fully thought through and intellectualized.

Hypothesis formation is when a suggestion is reconsidered in terms of what can be done with it or how it can be used. Acting on a working hypothesis involves making more observations, considering more information and seeing how the hypothesis stands up to tentative testing. In so doing, 'the sense of the problem becomes more adequate and refined and the suggestion ceases to be a *mere* possibility, becoming a *tested* and, if possible, a *measured* probability' (*ibid*, p. 110).

Reasoning is when the linking of information, ideas and previous experiences allows one to expand on suggestions, hypotheses and tests, to extend the thinking about and knowledge of the subject. 'Even when reasoning out the bearings of a supposition does not lead to its rejection, it develops the idea into a form in which it is more apposite to the problem' (*ibid*, p. 112).

Testing is the phase in which the hypothesized end result may be tested. In so doing, the consequences of the testing can be used to corroborate (or negate) the conjectural idea. Overt testing is the opportunity to find out how well one has thought through the problem situation, yet results of the test need not always corroborate the thinking that preceded the actions. In reflection, failure is instructive. 'It either brings to light a new problem or helps to define and clarify the problem on which he has been engaged. Nothing shows the trained thinker better than the use he makes of his errors and mistakes' (*ibid*, p. 114). Testing may also occur as a covert action whereby a 'thought-experiment' is conducted to test an hypothesis.

In outlining his five phases of reflection, Dewey (1933) discusses ways in which the phases may overlap one another and how some phases might be expanded depending on the problem at hand. He places the phases of reflection in context by referencing the learning to both past and future actions and experiences; reflection is not only 'looking

back' and it can persist for extended periods of time.

For me, reflection both is appealing and applicable in my work with pre-service teacher education students, especially so if they are to master not only the technical skills of teaching but also to be thoughtful, purposeful and informed decision makers. Clearly this can only be achieved if student-teachers question their own actions, reconsider their knowledge and understanding in the light of experience, and use this to shape the way they approach helping their students to learn. Similarly, I believe, that they need to experience this as learners themselves in their pre-service teacher education programs if they are to adopt this approach in their own professional practice.

Schön (1983) recognized this need in other fields of professional practice in which he described reflection in terms of the knowledge gained from a practitioner's own experience. Through his observations of professionals' thinking in action he drew a distinction between technical rationality and the knowledge of practice. Therefore, reflection was seen as an important vehicle for the acquisition of professional knowledge.

Schön (1983) described two forms of reflection; reflection-*on*-action and reflection-*in*-action. Reflection-*on*-action is the basis of much of the literature pertaining to reflective teaching and reflective teacher education, and is similar to Dewey's notion of reflection. This form of reflection is seen as 'the systematic and deliberate thinking back over one's actions...teachers who are thoughtful about their work' (Russell and Munby, 1992, p. 3). Reflection-*in*-action is understood through 'Phrases like thinking on your feet, keeping your wits about you, and learning by doing [and] suggest not only that we can think about doing but that we can think about doing something while doing it. Some of the most interesting examples of this process occur in the midst of a performance' (Schön, 1983, p. 54). Reflection-*in*-action comprises the reframing of unanticipated problem situations such that we come to see the experience differently.

The attention by Schön to reflection-*on*-action and reflection-*in*-action was the start of a new wave of research and learning about reflection. Books, papers, conferences and teacher education courses were forums for debate about what reflection is and how it might be developed. One way of describing and categorizing this literature was outlined by Grimmett and Erickson (1988) and MacKinnon (1989a) and encompassed three groupings. The first is a view of reflection as thoughtfulness about action, the second is reflection as deliberating among competing views of 'good teaching', and the third is reflection as reconstructing experience. Grimmett and Erickson (1988) describes Schön's work as being situated in this third grouping:

His focus is on how practitioners generate professional knowledge in and appreciate problematic features of action settings. As such, Schön's contribution to reflection is distinctively important. He builds on and extends Dewey's foundational properties of reflection... The reflection that Schön focuses on takes place in the crucible of action. And it is his marked emphasis on the action setting that sets Schön's work apart. (p. 13)

Interestingly though, 'when Schön's Reflective Practitioner struck the consciousness of educationists in the mid-1980s, it was not always as a re-embracing of Dewey's notion, but as the discovery of a new concept' (Richardson, 1990, p. 3). But the impact was such

that it caused many teacher educators to reconsider the structure and curriculum of their pre-service teacher education programs. Attempts to develop ways of encouraging student-teachers to develop as reflective practitioners have led to a variety of approaches and structures which have also played their part in shaping the pre-service program in which I teach.

### **Teacher Education: Structures to Promote Reflection**

One structural feature is that of seminar group discussions. Goodman's (1983, 1984) research into the value of seminars in education generally concludes that such sessions can serve three important functions. They can counter the notion that there is one good way to teach through their *liberalizing role* which encourages unique and creative approaches to teaching. They can also serve a *utilitarian role* whereby student-teachers can reflect on the relationship between educational principles and practice, and they can serve an *analytic role*. In the analytic role there is an opportunity for student-teachers to raise specific educational issues or problems and jointly analyse the underlying principles and implications of the issue.

Goodman's work (1983) illustrates that although seminars are capable of fulfilling these roles, it does not necessarily follow that the desired outcomes will occur. He states that in order for these roles to be served it is fundamental that:

...to help student teachers become more reflective about education, the atmosphere within seminars must be open and relaxed. It is difficult under the best of conditions for individuals to question their beliefs and to explore the implications of their actions. Challenging students to reflect upon their experiences and ideas must be done with sensitivity and respect for the individuals. If healthy dynamics are not established, challenging students to think may result in defensiveness, not insight, (pp. 44–48)

Therefore the role of the teacher educator in the seminar becomes very important if the purpose for the implementation of that particular structure is to be fully realized. It is not enough to include structures to encourage reflection, teacher educators must embrace them in appropriate ways to insure that they do indeed serve the function for which they are intended.

Another tool for reflection is the use of journals. These are designed to encourage student-teachers to document their thinking about learning and teaching. It is anticipated that by writing about experiences, actions and events, student-teachers will reflect on and learn from those episodes. Approaches to journal writing in teacher education vary from the unstructured methodology of 'writing what one thinks about an experience' or a 'stream of consciousness' through semi-structured tasks which require a response to given 'prompts or cues', to highly structured formats which require the writer to adhere to prescribed criteria. For me, the purpose of journal writing is to help the writer look back on (or forward to) an event in the hope that it will be a catalyst for reflection.

The use of journals can be a powerful tool for reflection (Dobbins, 1990; Bean and

Zulich, 1989; Rodderick, 1986) but, like seminars, requires the teacher educator's commitment to, and valuing of, the writing and thinking necessary in maintaining a journal. One way that I attempt to encourage this in my student-teachers is by maintaining a journal myself. This serves two important purposes in my teaching. One is that it models my approach to my thinking about teaching and learning. The second is that as I openly share my journal with my class, it becomes a public document and offers an opportunity for the 'unpacking' of my views of our shared experiences within the pre-service program. It therefore gives them access to my pedagogical reasoning.

Another tool used to aid reflective thinking in student-teachers is the use of video-tapes of particular teaching and learning situations. The use of video-tapes may be of oneself or of others and generally focuses on the teaching performance. Micro-teaching is one approach to the use of video-taped experiences of one's own teaching whilst the observation of someone else teaching is usually designed to give the observer a vicarious experience of a particular teaching approach or episode. In each case, observing the teaching on video-tape, coupled with discussion and debriefing after the event, is seen as a way of encouraging reflection.

A valuable extension to this form of 'guided reflection' is the observation of one's own teaching through video-taping teaching in action in the school setting. MacKinnon (1989a) spent a considerable amount of time with his student-teachers video-taping their teaching and their debriefing sessions with their school supervisors. Through this work, MacKinnon found that the video-tapes offered his student-teachers new ways of reliving and reviewing their experiences, and that with an appropriate working environment and supervisory support, reflection was not only encouraged but was also enhanced and valued.

MacKinnon's work hinted at a necessary and fundamental shift in focus for the development of reflective teachers through pre-service education. He started to look at the supervisor as a role-model for the student-teacher. As he explored Schön's (1987) three conceptions of modelling (Follow Me, Joint Experimentation, and Hall of Mirrors) in the practicum, he started to uncover the influence of modelling on student-teachers' learning about, and development of, reflection. It is not surprising that, as in the case of seminars, journal writing, supervisory meetings and teaching debriefings, the influence of the teacher/role-model is crucial if student-teachers are to develop their skills of reflection.

Richert (1987, 1990) also recognized the importance of teachers as role-models for their student-teachers' learning about and learning through reflection. However, even though research suggests there is implicit value in effectively modelling reflection, there is little to suggest that this explicitly occurs in teacher education programs. Gunstone *et al.* (1993) outlined the importance of modelling in pre-service education and linked this with the need for pre-service educators to reflect on their own practice in accord with their expectations of their students' thinking about learning. It may very well be obvious that this should be the case, but it is not uncommon to hear of teacher educators presenting cooperative learning, group work, problem solving or many of a number of other interactive learning approaches, by systematically detailing the approach via a monologue in a lecture, defeating the purpose of learning from and with others.

Our ongoing student evaluations of the program point to the importance to them [student-teachers] of consistency between espoused pedagogical principles and actual behaviour by staff. This importance is shown by both positive comment on examples of consistency between espoused principle and actual practice, and negative comment, often detailed and perceptive, about examples of inconsistency. (Gunstone *et al.*, 1993, p. 54)

Valli (1989) also pointed to the need for university professors and cooperating teachers to 'practice what they preach'. In her study into the transfer of learning for novice teachers she described the lack of appropriate modelling as one of four factors which inhibited student-teachers' learning about teaching. Sadly, she found that it was difficult to alter this practice.

The research literature shows that there has been extensive incorporation of social and artifactual characteristics into teacher education programs. They have been taken up in teacher education programs because, when used in appropriate ways and under appropriate conditions, they are seen as positive ways of encouraging student-teachers to reflect. These social and artifactual characteristics, combined with teacher educators who genuinely model reflective processes in their pedagogy, could place student-teachers in a position whereby through the development of their skills in reflection, they could take more control of, and accept more responsibility for their learning about teaching. Under such conditions student-teachers might develop a greater understanding of what it means to be a reflective practitioner, and apply it in their own practice.

Clarke (1988) reminds us that research into teacher thinking highlights the value teachers place on reflection. Amongst a series of questions that he raises for teacher educators to consider, he asks whether teacher educators show that they value and use reflection in their own practice, and whether teacher preparation programs help to illustrate the 'intrinsic uncertainty' of teaching (which is the basis of reflection). But one of his most telling questions is:

Do teachers of teachers have the courage to think aloud as they themselves wrestle with troubling dilemmas such as striking a balance between depth and breadth of content studied, distribution of time and attention among individual students, making inferences about what students know and what grades they should be assigned, or with how to repair errors, teaching disasters, and the human mistakes that even experienced teacher educators make from time to time? (p. 10)

By combining the features of program structures designed to enhance reflection in student-teachers with the modelling of reflective practice, Clarke's question could well be considered as the next challenge for teacher educators who genuinely pursue the goal of developing reflective practitioners.

Through the use of a pre-service program's social tools (e.g., seminars, discussion groups, supervisory feedback, interviews) and artifactual tools (journal writing, video-tapes of student-teachers' own lessons), combined with my attempts to model reflective practice so that the intrinsic value of reflection on my own practice could made more

explicit for my student-teachers, the influence of these on the way that my student-teachers develop and use reflection in their own practice can be explored.

The approach to reflection I employ draws on the deliberative, purposeful form of reflection described by Dewey (1933) and incorporates many of the pre-service education program structures developed, adapted and used by other teacher educators in the hope of producing more reflective teachers. In this book I will explore the link between my reflection and practice in my pre-service education teaching and the development of reflection in my student-teachers through the interplay of the experiences from the university-based coursework through to their school teaching experiences. In this environment student-teachers can be well nurtured through their struggle to learn about teaching and to start developing as reflective practitioners.

In order to discover how reflection by student-teachers might be developed and enhanced, I will explore and analyse student-teachers' thoughts and actions through their social and artifactual tools, combined with the effect of my modelling of reflective practice on one group of student-teachers from my Teaching and Learning (TAL) class in the pre-service secondary education program in which I teach.

### **The Context**

The one year, post-degree Diploma in Education is an ungraded course (participants academic record shows pass or fail only) which has three periods of teaching practice, each of three full-time weeks, and coursework which is divided into two major areas: Methods and Practice of Teaching, and Foundation Studies. Students participate in two Methods and Practice of Teaching subjects, which are timetabled for two hours per week for the duration of the course. These subjects are designed to give students a grounding in the pedagogy of the subject and to familiarize them with subject content and curriculum at the school level.

A wide range of teaching subjects is offered in this course and the prerequisite for entry to these Methods Subjects is at least two consecutive years study of the subject during the student's first degree.

The Foundation Studies include Social Foundations of Schooling (SFS) and Teaching and Learning (TAL). The SFS subject examines contemporary schooling in its social and historical context. This focuses on the nature of teachers' work, what and how they teach, and how these are influenced by the way society and education are structured. The subject also investigates contemporary issues in education and how these have emerged over time. Social factors such as class and gender, and major issues such as the integration of students with disabilities, changes in teachers' work and pay, and the development of post-compulsory schooling are considered.

TAL is a subject that presents psychology and principles of teaching through a number of themes to do with knowing about oneself, students, planning and control, learning and teaching, and student progress. The purpose is to enable student-teachers to establish principles that will make their teaching a purposeful, rational and rewarding experience, both for themselves and their pupils. Within these themes, TAL covers topics such as theories of learning and their application in classrooms; physical, personality, and social

development; knowledge and the curriculum; the nature of abilities; approaches to classroom control; questioning techniques and other teaching strategies; lesson structure; and the purposes and methods of assessment.

Students are allocated to a tutorial group at the start of the year and remain in the same group for the whole year for both TAL and SFS. Each subject is structured so that all students meet together for some lectures: once a week in SFS, perhaps once every two weeks in TAL, with the primary focus being on the tutorial groups which meet twice weekly for two hour sessions. Therefore, the same group of students is together for up to eight hours per week.

Selection of students for tutorial groups is organized so that there is as great a diversity of teaching methods as the timetable will allow. As students in a tutorial group spend so much time together, it does not take very long before the group is 'bonded'. This 'bonding' is also the focus of many early TAL activities. The relationship between the teacher educator (tutor) and students is important in encouraging them to speak openly and honestly about the topics under consideration. This is similarly enhanced through the use of student journals which are a component of the course.

### **Gathering Student-teachers' Views**

Because of the complex nature of the thinking which needs to be accessed to explore the relationship between modelling and student-teachers' reflection on practice, I have used a diversity of approaches. The first involves journal writing which was designed to encourage students to reflect on their pre-service education experiences. The second was from nine members of my TAL class who volunteered to be interviewed throughout the year. These interviews were designed to probe their views of the course, their experiences and understanding of pre-service education, and to explore these in ways that might not have been possible through their journals or in class. Another was from four of the students who were interviewed who also volunteered to be video-taped teaching during their final school teaching experience. This was particularly designed to help gain insights into their thoughts and actions about their own teaching in action.

Exploring this relationship between the modelling of reflection and its concurrent development in student-teachers was initiated in response to a desire for pre-service teacher education programs (and teacher educators) to be able to help student-teachers develop an approach to teaching that might help them take more control of their own education, and to encourage them to be deliberative and thoughtful about their pedagogy. Not surprisingly it has also been a major factor in shaping my own pedagogy as my research and practice continually influence one another.