PART 1

THE THEORY AND THE STRATEGIES

1. THE THEORY OF REFLECTION

Contributions to the theory of reflective thought can be traced back to the discussions of philosophers such as Socrates, Plato, Descartes, and Kant (Smith, 1994). Most contemporary theorists, however, base their definitions of reflection on Dewey's (1933:9) description of reflective thought as the active, persistent and careful consideration of any beliefs that support the processes of reflection and further conclusions that may be suggested.

The Nature of Reflection

Hatton and Smith (1995:33) state that Dewey's (1933) work in the area of reflection early this century is very important. According to them, Dewey considered reflection as a special form of problem solving and thinking to resolve an issue, which involved active chaining, (a careful ordering of ideas linking each with its predecessors). In their article, Hatton and Smith (1995:34) state there are four key issues with regard to reflection that have emerged from Dewey's original work and its subsequent interpretation. The first is whether reflection is limited to thought process about action, or is more inextricably bound up in action (Noffke and Brennan, 1988; Grant and Zeichner, 1984). The second relates to the time frame within which reflection takes place and whether it is relatively immediate and short term, or rather more extended and systematic, as Dewey seemed to imply (Farra, 1988; Schon, 1983). The third has to do with whether reflection is by its very nature problem-centered or not (Adler, 1991; Calderhead, 1989; Schon, 1987). Finally, the fourth issue is concerned with how consciously the one who is reflecting is taking account of wider historic, cultural

and political values or beliefs in framing and reframing practical problems for which solutions are being sought, a process which has been identified as 'critical reflection' (Hatton and Smith, 1995:34). All of these issues are discussed further below.

Other definitions of reflection mirror Dewey's emphasis on the active analysis of one's beliefs, values and actions. Valverde (1982) for example, provides the following definition of reflection:

> *...Reflection means asking basic questions of oneself. The basic and comprehensive question during reflection is, "what am I doing and why?" Reflection is a form of slightly distorted self-evaluation--distorted in the sense that judgment is emphasized rather than data collection. The individual asks value-laden questions and responds on stored, selected data (memory), and then concludes whether he or she is satisfied or dissatisfied. Reflection, then, is an individual's need assessment and continued self-monitoring or satisfaction with effectiveness. As with any type of evaluation, reflection should be formative, that is, periodic, constructive and deliberate ...(p.86)*

From this example, reflection can be conceptualized as a process that develops knowledge of self over time as a result of interactions of the person with his or her environment. In addition, Kelchtermans and Vandenberghe (1994:54) argue that the self influences the way people perceive concrete situations and their daily behaviour. Wade and Yarbrough (1996:64) note that reflection is a means for reliving and recapturing experiences in order to make sense of them, to learn from them, and to develop new understandings and appreciation.

This same emphasis on active analysis occurs when Ross (1988) relates reflection to rationality and responsibility. In her view, reflection:

> *...is a way of thinking about educational matters that involves the ability to make rational choices and to assume responsibility for those choices...(pg. 26)*

In addition, Dewey (1933:17) argues that when someone has a 'reflective thinking capacity', he/she will be able to avoid being 'impulsive' (that might cause him/her to do wrong) and will not strictly adhere to the routine of daily life because 'reflective thinking' encourages her/him to be creative with foresight

and plan according to ends in-view. This kind of thinking is important to teachers in their learning process of making decisions, as will be elaborated and discussed below. Similarly reflective thinking is not idle meandering or daydreaming, but purposeful activity directed towards a goal (Boud, Keogh, &Walker, 1985)**.** Boud et al., offer a similar emphasis on the gaining of new meanings through reflection on experience. They describe reflection as:

> *…those intellectual and affective activities in which individuals engage to explore their experiences in order to lead to new understandings and appreciation…(pg. 19)*

These notions of goal directed and deliberate analysis as key components of reflection are also highlighted by Doyle (1992:22). She describes reflective thinking as:

> *(a) an internal examination and analysis of an issue, problem, or concern;*
> *(b) an active, purposeful process pursued with an intended outcome in mind;*
> *(c) a process of gaining new meanings and understandings from experience;*
> *(d) an individual process even though it may take place in association with others.*

From the above accounts, we can describe reflective thinking as an active reasoning process (Dewey, 1933) in which hypotheses are formulated, data are gathered, and hypotheses are tested even if often this formulating, data gathering and testing is more implicit than overt. In addition, Grimmett, Erickson and Mackinnon (1990) present three perspectives on reflection. According to them, the first perspective sees reflection as an instrumental mediation of action. The second views reflection as deliberating among competing views of teaching and the third sees reflection as reconstructing experiences.

The three perspectives of Grimmett, Erickson and Mackinnon (1990) suggest three distinct definitions of reflective teaching: first, a technique for analyzing one's teaching skills (Cruickshank, 1985); second, a selection of the best among competing definitions of 'good' teaching; third, drawing on Schon's (1983) definition, a process of problem setting, framing, and exploration within

context. The third definition stresses the importance of a moral and ethical framework for reflective decision-making and teacher empowerment (Zeichner and Liston, 1987).

For the book, Dewey's notion of reflection as problem solving is the basic idea to be used to teach student teachers to practice reflection. The rationale is that student teachers need help to practice reflection and with proper guidance, they can confront problems and work towards solving them. Reflection and facilitating reflection have become important features of teacher education programs for these reasons.

Reflection as a Research Agenda in Teacher Education

Shulman (1987), Cruickshank (1986), and Korthagen (1985) view reflection as an important element in learning to teach. Schon (1987,1983) approaches the process of reflection from the perspective of developing practical knowledge in the context of professional practice. Each of these writers contributes to our knowledge and understanding of reflection.

In the eighties, more awareness had led to the investigation of the cognitive abilities of student teachers and there have been more concerted efforts to inquire into the self-regulatory capacity of student teachers' cognition and knowledge, based on the notions of reflective teaching (Calderhead, 1989; Lanier and Little, 1986). The term 'reflection' was used frequently with reference to teaching practices (Russell and Munby, 1992; Mac Kinnon, 1987; Shulman, 1987; Munby, 1986). In part, this was a result of the provocative ideas of Schon (1988, 1987, 1983,). His body of work opened a new forum for discussion by advancing a new image of the nature of professional knowledge and how it is acquired. Much discussion has followed, giving rise to multiple meanings of the term 'reflection' in teacher education literature (Clift, Houston and Pugach, 1990). At the heart of the discussion lies the perennially awkward problem of determining what are the foundations of teacher education and how can reflection be related to these.

Responding to this problem, Valli (1990) suggested three ways to incorporate 'reflective thinking' into teacher education which emphasize moral

and ethical aspects. These approaches are 'deliberative', 'rational' and 'critical'. The deliberative approach is a more technical one. Rather than examining the reason for behaviour, this approach provides a recipe for people to follow in terms of what is right or moral regardless of context Valli (1990). The notion of technical reflection assumes that education is a 'moral' effort that encourages teachers to consider serious behaviour, good deeds, moral values and aims. So technical reflection implies a reflection on how people achieve the ends.

The rational approach views education as socially constructed and views reflection as solely based on reason and logic (Valli, 1990). In the rational approach teachers think of information as organized into a network of related facts, concepts, generalizations, and experiences. These organized structures, called 'schemata' (Sparks-Langer, 1992: 148) constitute the individual's comprehension of the world and allow a large body of information to be stored and accessed. Constructivist theory (Clark and Peterson, 1986) indicates that individuals are constantly constructing their own meaning out of what is perceived. This is a dual process of assimilation (Piaget, 1978). Therefore, in the rational approach, the experiences, values, and beliefs stored in memory have a major influence on how a new piece of information is perceived and interpreted. Research by Ross (1990) for instance, showed that teacher educators are now giving more attention to how preconceptions about the aims of education can influence what college students do (and do not) learn from teacher education programs.

The critical approach is similar to the rational approach in that it places more importance on 'life values' and morals than the deliberative. However, what is more important in the critical approach is that it looks at values and morals within a particular milieu or context in a society, for example, conceptions of justice and ethics related to the treatment of students.

According to Valli (1990:150) all of these approaches would be heavily dependent on the social milieu in which the teachers develop. As will be seen below this is particularly important in the Malaysian context. This manner of thinking would give opportunity to teachers in training to think of the best way to solve a problem by considering the implications of possible solutions based on

moral and ethical principles. Thus, they would not just convey the culture but try to translate the new meaning of the culture. This again, is very important in the context of Malaysian society.

The synthesis made of the research in the field about the concepts of reflective teaching and reflective teachers have been discussed by Leino (1997: 147). According to her, Russell (1989) has developed two dimensions to conceptualize inquiry-oriented teacher education. The first is comprehensiveness of what is problematic, ranging from the teaching-learning process to the society and its organization. The second dimension includes the models of inquiry with which teachers can identify the problematic area and the problem can be pondered and solved by reflective practice. This book employed the model of action research into the student teachers' teaching practice so that they would be guided to investigate their own work through reflective practice in school.

This is why a teacher educator needs to help and guide their student teachers to make these elements explicit during reflective practice. Student teachers cannot develop their teaching knowledge fully without addressing their emotional reactions, responses, attitudes, and beliefs that underlie these. Reflection is one means to achieve this.

Definition of Reflection

Reflection means many things to many people. For some, reflection is a review of one's practice to ensure fidelity to a particular set of rules. For others, reflection could mean 'making problematic' particular aspects of their practice to gain new insights into that practice. Further, reflection has been conceptualized as a personal activity, a public activity, and a combination of the two (Pugach and Johnson, 1990). These various conceptualizations are grounded in different views of knowledge and their relationships to the teaching practice setting.

Reflection, as used in this book is, as already suggested, seen as problem solving. It is conceived as a learning process based on a meta-cognitive search for meaning and the internalization of one's own feelings in this quest for meaning to give context to disparate bits of information, within a teaching practice setting.

Recent directions in educational research depict professional practice as the knowledge-in-action that practitioners exhibit in their daily work (Erickson 1986, Feiman-Nemser, 1986, Zeichner, 1986). As already indicated often this knowledge must be made explicit. Therefore, in this book, the conceptualization of action research and its relationships to the teaching practice setting in school is used as the approach to enhance reflection in teaching and thereby 'create an inquiry culture in education' (McTaggart, 1991). In order to facilitate this action research, the focus in this book is more on how to help student teachers write down their feelings by using a structured framework for reflection. There are two main reasons for the format of this structured framework.

First, as an occupation, teaching is highly charged with feelings, stimulated by and directed towards not just people but also values and ideals (Goleman, 1995). Initially, teachers often feel 'passionately' (Laboskey, 1994) about their pupils, their teaching skills, their teaching environment and the context of the school. In addition, the teaching practice provides student teachers with experiential learning in a real setting. This affects their teaching efficacy and the development and practice of their competence. The structured framework provided student teachers with a framework to explore their feelings and helped student teachers to understand the information from the 'emotional mind' (Goleman, 1995).

The emotional mind helps them to give meaning to the interesting events in their own classrooms. This is because feelings impact upon one's thoughts, and reflection is in turn influenced by feelings. As reflection is also a tool for judgement and action, student teachers react not only to the events, but also to their interpretations of events. When feelings are rooted in cognition, one cannot separate feelings from perception, interpretation and the effectiveness of judgement. Therefore, the structured framework for reflection provided the opportunity for student teachers to discuss or to identify and write about their feelings related to their experiences in teaching practice.

The first step in the process was for the student teachers to select interesting events that happened during Teaching practice 2. The second step

was for them to identify how they felt and interpreted the events to gain meaning from them and from the contexts in which they occurred.

Third, after obtaining the meaning of the events, student teachers planned their course of action in the classroom. Therefore, reflecting in this way is a sequential series of actions and can be seen as a tool used by teacher educators and student teachers in developing the skills of being a classroom researcher. According to Nias (1996:295), neither cognition nor feeling can be separated. In order to develop an intimate connection between teachers' unique sense of self and their actions, the structured framework as part of the reflection model used in this book highlights the importance of thinking and sensations and emotions as equally essential in reflection.

The Reflective Model

Wallace (1991:49) proposed a reflective model that has been used in this book and is illustrated in Figure 1.1. It can be seen from Figure 1.1. That the process of developing professional competence has been divided into stages as follows. Stage 1 is the pre-training stage, the stage before professional training or development. The 'trainee' may be pre-service, or may already be engaged in the profession (in-service or self-development).

Stage 2 is the stage of professional education or development. In this stage, four key elements are highlighted - 'received knowledge', 'experiential knowledge', 'reflective practice' and 'reflective cycle'. Received knowledge includes facts and theories that comprise the courses that are given by teacher training colleges to trainees (student teachers). It has a reciprocal relationship to 'experiential knowledge'. 'Experiential knowledge' refers to knowledge gained from the entire professional action and experiences.
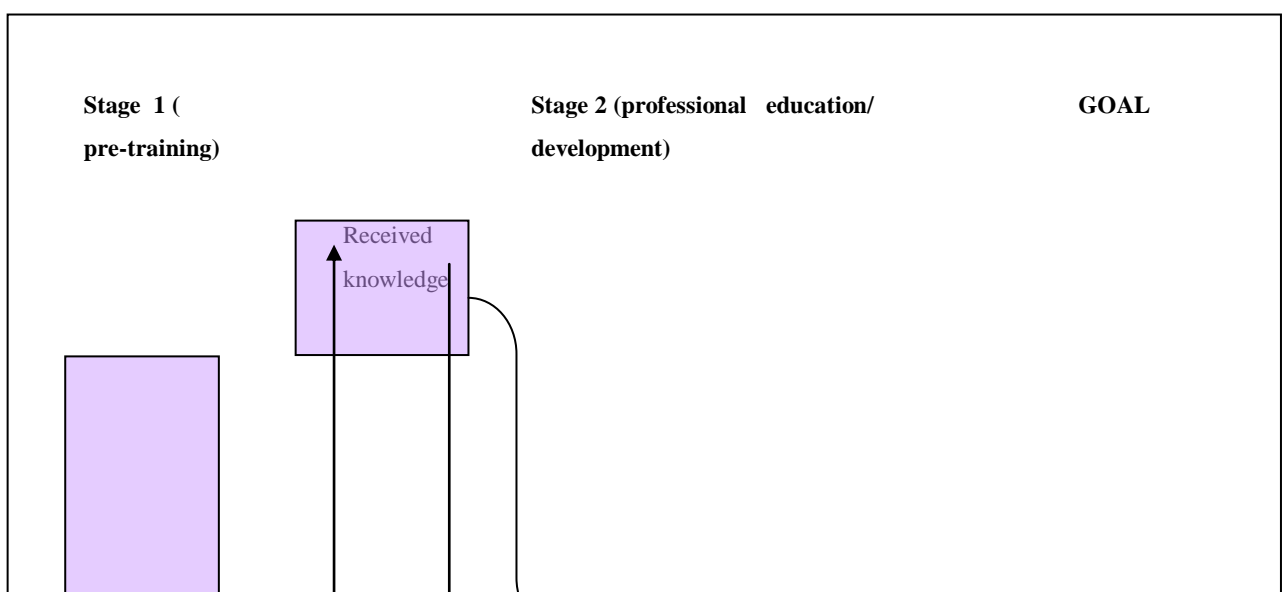
Wallace (1991: 52) argues that the effectiveness of such courses in university or college would obviously depend on how they relate to the trainee's own practical experiences. These will develop when the learner emphasizes, and exploits field settings to maximum advantage. Learners, it is asserted, can gain maximum advantage from the field settings and environment if they have reflective practice (Boud, Keogh, Walker, 1985).
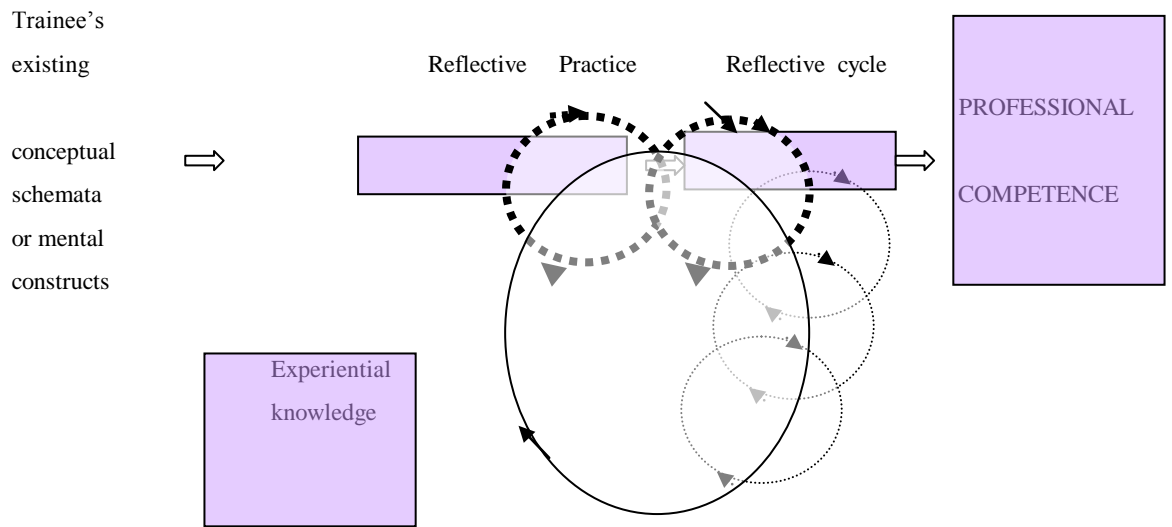
According to Wallace (1991) 'reflective practice' is at the very core of the 'reflective model'. Reflective practice during this stage is the starting point and terminus for the process. It is an act of comprehension, where learners start thinking about their work in the classroom and seeking the meaning and the knowing through action and reflection. This knowing on action is manifested in the 'conversation' that takes place in the learning cycles between the learners and his or her setting over time. Learning through reflective practice over time represents the learning process as a 'reflective cycle'.

The relationship between Stage 1 and Stage 2 (see Figure 2.2) is by practising reflection. Student teachers gradually develop their own mental constructs about new ideas, beliefs, and attitudes. By practising reflection, student teachers shape and refine their ideas, beliefs and attitudes. As well, they shift their level of mental construction/ conceptual schemata. As a result, student teachers develop new conceptual schemata about concepts such as 'teaching profession' and 'professional'.

This particular model is useful for student teachers because the culture of thinking reflectively is one of the alternatives to enhance professional development that has been implemented in Teachers' Training Colleges in Malaysia. This alternative was designed to give opportunities to teachers in training to think of the best way to solve a problem by considering the implications of actions on morals and ethics. The received knowledge such as 'Bina Insan', social, history and 'dinamika guru' would help them to think about moral consequences.

Figure 1.1　　　　**Reflective Practice Model of Professional Educational Development**

Stage 1 (pre-training)	Stage 2 (professional education/ development)	GOAL
	Received knowledge	

Trainee's
existing

conceptual
schemata
or mental
constructs

Reflective   Practice   Reflective cycle

PROFESSIONAL

COMPETENCE

Experiential
knowledge

Source: Adapted from Wallace (1991:49)

According to Wallace (1991:52) practical experience is when learners emphasize and exploit field settings to maximum advantage. Practical experience helps student teachers understand better about the setting and this understanding of setting develops teachers' cognition and teachers' knowledge.

Teachers' Cognition and Teachers' Knowledge

The ability to engage in reflective dialogue with their environment is crucial in order to develop student teachers' understanding as well as personal meaning and practical knowledge about teaching. In developing personal meaning and practical knowledge about teaching, Costa (1995) argued that there are four phases of instructional thought. The first phase is the planning for action (the pre-active phase) which consists of all the intellectual functions performed before instruction. The second phase involves monitoring during teaching practice, or the interactive phase, which includes the multiple decisions made during teaching. The third phase involves analyzing and evaluating instruction. Finally, the fourth phase, involves projecting ahead and constructing meaning by extracting from experience, synthesizing new generalizations, and applying them to future situations.

The above view is often presented in research inquiries as a philosophical argument for teachers' professional learning and knowledge to be grounded in reflection and action. Support can be found in the works of several cognitive psychologists who have explored students' self-regulation and control in learning (e.g., problem solving and meta-cognitive learning by Flavell (1979)) and studies on teachers' thought processes conducted by Clark and Peterson (1986).

Clark and Peterson (1986) in their review on teacher development suggested a number of useful studies which could be used to explore and understand teachers' cognitive development. Examples include Piaget's (1978) frameworks on cognition and stages of cognitive development, and Perry's (1970) book on stages of intellectual development of students in higher education. It is argued here that, although the suggestion by Clark and Peterson (1986) to explore the stages of teachers' cognitive development is useful, for the purpose of the book, it is more important to consider the more fundamental issues related to the nature of teachers' metacognition. This is so that a better understanding regarding teachers' self-regulation in learning and knowledge growth can be obtained.

Researchers such as Anderson (1989: 85) proposed a number of ideas that can be used to organize thinking regarding self-regulation in learning and knowledge acquisition and generation. The first idea recognizes the importance of personal knowledge in learning. It is assumed that individual student teachers can construct and organize their personal knowledge about teaching and develop their own conceptions of teaching. The word conception is used here to describe organized knowledge or ideas. It is also assumed that the conceptions of teaching held by student teachers would enable them to develop schema or mental scripts about teaching. This constitutes Anderson's second idea.

The second idea is that a schema is an organized structure, which summarizes knowledge about a variety of related ideas such as logical deduction. The third idea is that this understanding of schema is pertinent because inquiry into student teachers' schema about teaching explains how the organizational structure of the knowledge held by individuals is developed. Thus, a notion of teachers' knowledge using the schema theory in teaching suggests that student

teachers can think rationally in decision-making and problem solving processes (MacMahon, 1997; Yinger and Villar, 1986). An example of this is the knowledge used in lesson planning and the procedural knowledge adapted to present and conduct routine activities in the classroom. Professional development, however, is more than rational decision making. It is concerned with the growth of teacher's knowledge.

Religious Feeling and Implications for Reflection

Dewey (1933) recognized the importance of religious feeling in reflective thinking. He found that achievement of a deep, enduring adjustment in life involves more than a moral faith and ethical activism. For Dewey (Rockefeller, 1991:491) other factors as well may have a unifying effect on a person's experience. In addition, Goleman (1995:336) argues that one employs first, feelings and second, thought, in the process of making a decision.

Arguably, the feelings of harmony, belonging to a whole, and at peace, that are all characteristics of the religious quality of experience may be nourished by philosophical insight, natural piety, aesthetic experience, and mystical intuition. But insight into feeling in reflection derives from one's analysis of language utterances, for instance, poetry, humor, and metaphor. Responding to the Deweyian notion of inquiry in education, Beattie (1997:113) has invited us to share the idea of the interconnectedness of things in the natural world and of the inseparability of the intellectual, moral, social, aesthetic and physical dimensions of the human being. Beattie suggested that researchers and educators in being able to differentiate between the act and the meaning of the act.

To come closer to what Dewey meant about religious feeling and a narrative way of knowing in the processes of teaching and learning, Ahmad Deedat (1995:10) claimed that we tell our children anecdotes and fables (e.g. 'The fox and the grapes', 'The wolf and the lamb', 'The dog and its shadow', not just to entertain, but with a view to impart moral ideas to them. There are morals behind these stories. We are teaching our children not to be like the greedy fox, which, when it could not reach the bunch of grapes, said that 'the grapes are sour'; or not to be like that greedy dog, which, when seeing its reflection in the

water, lost the bone it had in its mouth. Religious feelings and moral thought from Dewey's (1933) philosophical framework are based on his interpretation of the idea that the important thing is one's understanding of and response to the commandments of God to live lives of ethical and moral responsibility. The above way of knowing leads to good stories, gripping dramas, and believable historical accounts (Beattie, 1997:5).

Dewey suggests that a religion always signifies a special body of beliefs and practices in some kind of institutional organization, loose or tight (Miedema, 1995:235). Religion mostly prevents the free development of religious experience, because of the weight of historic encumbrances. In addition, Dewey points to the identification of the religious with the supernatural, and faith in a completed revelation. Dewey's proposal to use the adjective 'religious', and to avoid the use of the noun substantive 'religion', combined with his demand to 'wipe the slate clean and to start afresh' (Miedema, 1995:235) could give the world the idea that there is no place left for religion at all. Dewey's discussion of religious quality and religious attitudes in reflection are important for this book as one of the important elements in reflection, particularly in Malaysia.

In the context of an Islamic country such as Malaysia, in using Islamic beliefs towards a strategy for knowledge, there are two fields of which humans should have some knowledge and understanding (Smith 1994: 49). These are the 'Unseen' world (alam al ghayb), namely, all that is beyond the reach of a created being's perception, and the 'Seen' or perceptible world (alam al shahadah), which is all that can be witnessed by a creature's senses or mind. The primary sources of knowledge of the 'Unseen' world are Revelation and the Hadith. The basic source of knowledge of the 'Seen' world is the tangible universe. Experiments and perceptions, which may support one another, provide evidence of the 'Seen' world by a variety of means.

The researcher asserts that Dewey is a person who was in the process of finding a way to form knowledge and balance it with religious thought and rationality. He is one of the western philosophers who acknowledged both the value of Christianity and at the same time, the need to be open to acknowledging and learning from other religions.

In 1924, Dewey had a great opportunity to learn from the Islamic world when he was invited by the Republic of Turkey to restructure the curriculum in Turkey's education system. Unfortunately at this time, the Republic of Turkey and its state of education system were tragic and chaotic. Neither Turkey nor Malaysia can assert its own educational system to be wholly indigenous. All the systems come into being as a synthesis of various ingredients of the home country and other countries. The crucial problem is to what extent the 'borrowing process' (Sachs, 1997:7) should be used. Smith (1994:49) argued:

> *I felt that one of the great geniuses of Islam is that that is exactly what the religion is. Din which is usually translated as religion, in fact means just that set of reactions and actions by which one attempts to live in response to the ethical imperative of the faith. And the content of one's Din is determined by the strictures and structures of the religion of Islam; that set of guidelines for the living of one's life that have come directly from God. I suspect this principle is not unlike what those Christian theologians are trying to get at, who call for less attention to theology and more attention to praxis, to working for justice and liberation of the oppressed.*

Beliefs and feelings shaped through the system in the culture where the person lives, no matter whether western or eastern, is an important focus for reflection and how reflection is facilitated. The researcher used this element of feeling in her structured framework for reflective thinking to motivate student teachers, to explore their value positions, insight and feelings toward their actions in teaching.

An important book which foregrounds the importance of feeling in the reflective thinking of teachers was that of Nias (1996:293). She describes how teachers feel, often passionately, about their colleagues and the structures of schooling, about their dealings with other significant adults such as parents and inspectors, and about the actual or likely effect of educational policies upon their pupils and themselves. These feelings are living realities for teachers of all age groups, radically affecting their professional efficacy. In addition Gordon (1991:3) points out that beginning teachers often suffer from emotional isolation when they are assigned to the most physically isolated classrooms and they may also suffer from social and professional isolation. Experienced teachers are not

always likely to offer assistance to beginning teachers, even when beginners are clearly experiencing severe difficulties (Gordon, 1991). In responding to this idea it is important to develop a scaffolding system for managing the student teachers' emotions during field experiences. That is why this book incorporates feelings into the structured framework for reflective thinking.

The above reviews on cognition, knowledge growth in teaching and feeling in teaching have important implications for the book. They imply that teachers' meta-cognition, control and self-regulation in learning can be investigated through teachers' ability to construct personal meanings and schema of teaching and reflection on their own teaching. Therefore student teachers need the various methods and strategies to foster self-reflection and self-regulation in learning. Many researchers such as Russell (1989); Smyth (1987); Lanier and Little (1986) have indicated that the demands of teachers' work contexts require expertise or knowledge in the critical appraisal of situations. Thus, the practical knowledge of situations or situated knowledge is the main focus of teachers' cognition and knowledge.

It is recognized in this book that, besides the importance of the personal, practical and situated knowledge, it is also pertinent to examine other forms of teachers' knowledge. For example, the codified or specialized knowledge discussed earlier in this chapter. Of particular importance to curriculum in teacher training colleges in Malaysia, is Shulman's (1987) suggestions of using different categories of teachers' knowledge to develop and structure teachers' domain-specific knowledge such as content of pedagogical knowledge, declarative knowledge (knowledge of fact and principles), and procedural knowledge (knowledge of skills and techniques). From the above review and discussion, it appears that there are different forms of teachers' knowledge. Research studies directed at explaining aspects of student teachers' thinking and feeling knowledge (Carter, 1990) like the book are therefore, essential. As has also already been argued, reflection by teachers is central to such research, and as part of this, research about the type of reflective writing produced by student teachers.

The Level of Reflection

Van Manen (1977) suggested that there are three levels of reflection, each one embracing different criteria. The three levels of reflectivity he defined are technical-rational reflectivity, practical reflectivity and critical reflectivity. Each are defined below.

Technical rational reflectively is concerned with the efficient and effective application of the purpose of achieving objectives or solving immediate problems. Systematic research on teacher effectiveness suggests generalizations about the nature of teaching and learning. Student teachers are expected to apply these generalizations to solve classroom problems and achieve effective outcomes associated with pupils' learning. Contemporary student teachers' professional learning, it is asserted, is more focused on the technical rationality orientation of cognition. For example, Russell (1989) argued that student teachers' learning is more focused on acquiring technically codified knowledge in teaching (or prepositional knowledge given by teacher educators) and applying this knowledge to real classroom situations. This orientation in cognition and reflectivity influences student teachers' actions and hence their knowledge. Russell argued that current practice in teacher education encourages student teachers to develop technical- rational views of knowledge, cognition and action. Thus, these views are contradictory to the views, which propose the importance of reflective conversations with the situation and the generation of professional knowledge in teaching espoused by theorists such as Schon (1987).

The second level defined by Van Manen is practical reflectivity, which is to consider the pre dispositions underlying practical affairs in the classroom and to assess the educational consequences toward which an action leads. At this level, every action is seen as linked to particular value commitments. Therefore, one considers the value of the competing educational ends prevalent in teaching (Van Manen, 1977). Research on student teachers' practical reflectivity often considers broadly the knowledge that student teachers have of their classroom situations and the practical problems and dilemmas they face in carrying out

purposeful actions in these settings. It includes a range of studies on teachers' knowledge (Carter, 1990). These include, personal practical knowledge and implicit theories; ecological studies of classroom knowledge structures; and the emerging use of knowledge for planning, monitoring and evaluating instructions.

The third of Van Manen's levels is critical reflection where the main concern is to consider which educational goals, experiences and activities can lead toward the forms of life which are of the most concern in education (e.g developing moral values such as justice, equity and humanity). Kim (1994:50) argued that when student teachers are engaging in critical reflectivity, the ends and means of teaching and the surrounding contexts are viewed as problematic. Very often, student teachers have to resolve problems and dilemmas in teaching based on their critical appraisals and use of criteria which they have developed for themselves as moral and ethical values. According to Valli (1990) critical examinations of moral values and educational ideals are construed to be important. However, very little field research has been carried out in this area except for some studies conducted by Zeichner and Liston (1987) which attempted to relate student teachers' reflection to moral actions.

Types of Reflective Writing

A conceptual framework emerged from Hatton and Smith's (1995:45) analysis of data and was used to identify four types of writing. These were descriptive writing, descriptive reflection, dialogical reflection, and critical reflection. Descriptive writing was the reporting of an event or literature without reflection. Hatton and Smith (1995) found that descriptive writing was most common in their student teachers, while critical reflection was least common. They also found that a critical friend, collaborative discussion and a trusting environment were important in stimulating reflection. It is necessary to distinguish between the ability and willingness to write in a reflective style and the ability and willingness to reflect. It is also important not to discount the possibility that student teachers may be more reflective than their writing suggests. Sumsion (1997:37) points out, however, that Hatton and Smith (1995), Perry (1970) and Tann (1993) among others, propose that description

might be more appropriately seen as a precursor to the process of reflection than, necessarily, evidence of low-level reflection. Reflective writing will be further discussed as part of the identification of possible strategies to facilitate reflection.

Valli (1992:159) observed the movement, in the mid to late 1980s, from the book of teaching behavior to the book of teacher thinking. As she became more involved with teacher preparation, she could see the crucial need to better understand how teachers developed and used professional knowledge and experience. She was inspired to think deeply about the result of the cognitive novice/expert studies. Valli (1992: 160) also argued that cognitive processes are crucial to professional practice. She also realized more fully that teaching is an expression of the essence of who we are and as such must reflect our values, beliefs, and souls.

Zeichner and Liston (1987) argue that at the level of critical reflection, student teachers can incorporate moral and ethical criteria into their considerations when they take a practical action in teaching. When student teachers are engaging in critical reflectivity, the ends and means of teaching and the surrounding contexts are viewed as problematic, and very often they have to resolve problems.

Valli (1992:160) has been strongly drawn to the critical and narrative approaches to teacher's reflection. She asserts that these ideas are beginning to fill in our understanding of educational practice by honoring and legitimating the least explored but surely more essential aspects of teaching. It is, perhaps, in the eye (and the heart) of the beholder that the essence of truly great teaching lies. Dewey (1990:9) stated that teachers should have professional knowledge and should be as a whitening moral agent, with moral obligations derived from moral imperatives.

2.   **STRATEGIES**

One of the most important aspects of the senior management role is planning and policy making., sometimes described as 'promoting ' or 'managing the mission'. This part will provide two sections. The first section of review provides more specific detail about the importance of critical reflection in teacher education in Malaysia and Malaysian Teachers' Training Colleges. The second section examines studies on strategies for the development of reflective teachers; structuring reflective writing; the teaching practice as a research context for exploring reflection; and, the notion of coaching and scaffolding in reflective practice

Strategies for the Development of Reflective Teachers

Many strategies are implemented to foster reflection in teacher education and many programs employ several different strategies. According to Hatton and Smith (1995:36) there have been a wide variety of approaches employed in attempts to foster reflection in student teachers and other intending professionals. For example, action research projects (Sparks-Langer and Colton, 1991; Pugach, 1990; Carr and Kemmis, 1986; and Zeichner,1986); case studies and ethnographic studies of students, teachers, classrooms and schools (Sparks-Langer and Colton,1991; Stoiber,1990; Ross,1989); micro teaching and other supervised teaching practice experiences (Clark, 1994; Sparks-Langer and Colton, 1991; Zeichner 1986; Cruikshank, 1985); and structured curriculum tasks (Smyth, 1991 and Bayer, 1984).

Generally, systematic classroom observation of others, self-and peer-assessment of student teaching followed by discussion, action research, case studies and portfolios can be used as material for fostering reflection. Diary and journal writing has recently also become a popular technique (Jeans,1997). The idea behind many of these techniques is to increase the student teachers' awareness of their own thinking by having them verbalise it either orally or in writing. The research carried out by Bullough (1991) used metaphor analysis to encourage self-reflection of beginning teachers, as a first step in their professional development (Leino, 1997:153).

Zeichner and Liston (1987) note that empirical evidence in support of the various strategies is surprisingly merged. Thus, it would seem that research is necessary to ascertain the influences of various strategies on student teacher reflection (Houston and Clift, 1990). In terms of Schon's conceptualization of reflective practice, reflection on action is the first strategy to practice (Clarke, 1995) and the importance of action research, and off-campus strategies deserve closer research attention. My concern here was clear. Malaysian student teachers has been more often and accurately described as a plural society with Islam as the dominant religion instead of a Muslim society.

Structuring Reflective Writing in Field Experiences

Reflective writing is one of the common methods for encouraging student teacher inquiry. Two common forms are private journalizing and autobiographical writing (Clarke 1995: 247). Journal writing between the members of the teaching practice supervisory triad, provides students with the opportunity to ask questions. In addition Francis (1995:231) argues that writing and reflection is one of the techniques that can 'put writers in a position to learn at least four important things about themselves (1) What they know, (2) What they feel, (3) What they do, and (4) Why they do it? ' They as well as others (e.g. Stober, 1986; Walker, 1985) are able to cite several examples of research outside of teacher education which has documented the effects of writing on stimulating higher levels of thinking and increased awareness of the personal values and implicit theories through which one approaches experience. Field and Terry (1994: 26) found keeping a journal encouraged students to be reflective about their practice.

Research by Ross (1989) attempted to help student teachers examine their socially constructed beliefs about schools and learning using action research projects and 'theory-to practice' papers along with research based teaching techniques and critical discussions. Students were assessed using a scale from 1 (low: description with little analysis of context or multiple perspectives) to 3 (high: multiple perspectives with recognition of pervasive impact of teachers actions). Most students' papers were rated 1 to 2 which Ross interpreted as a

developmental process where time was needed for future reflection to move student teachers to the next level. Using the critical theorist approach, Ross (1989:22) developed a five component process of reflective thinking. The first component was recognising an educational dilemma. The second was responding to a dilemma by reorganising both the similarities to other situations and the special qualities of the particular situation. The third, component moved to framing and reframing the dilemma and the fourth, included experimenting with the dilemma to discover the consequences and implications of various solutions. The fifth component examined the intended and unintended consequences of an implemented solution by determining whether the consequences were desirable or not.

This book has adapted and modified Francis's (1995) ideas in order to structure the framework of reflective writing student teachers undertook in their journal writing during Teaching practice 2. This book also adapted Hatton and Smith's (1995) types of reflective writing in order to examine and classify the student teachers' type of reflective writing. The modification of the approach in the book was dependent on the Malaysian environment and culture. The exact detail of the structured framework for reflection in journal writing in this book will be discussed in more detail in Chapter 5.

Research Context for Exploring Reflection

As has already been indicated (Argyris and Schon, 1980) it is not enough to ask teachers what they do, for what they do and what they say often diverge. One must get at what teachers do through direct, recorded observation that permits a very detailed description of behavior and a reconstruction of intentions, strategies and assumptions (Schon, 1988: 9). The teaching practice was the primary focus of such attention.

The importance of the teaching practice is highlighted by reports that many aspiring and experienced teachers regard it as the most important component of their teacher education programs (Goodlad, 1990). The teaching practice and the associated relationships that occur between students and supervisors provide an important and valuable context for investigating student

teacher reflection. This experience should, however, be guided and well structured to serve its purposes, such as building the bridges between theory and practice and providing possibilities for the development of personal theory. Calderhead (1989) for instance, has pointed out how the notion of reflection-on-action has been used to support early experiences in schools and discussions between teachers and student teachers about teaching.

Developing programs to stimulate reflection in prospective teachers has interested teacher educators and researchers alike, but there seems to be very little agreement on what kind of reflectivity to promote. It would help decide what activities are desirable and what are undesirable and has the further benefit of indicating what is realistic to expect within the limited time available for teacher education. A social vision also has an impact on the choice of teaching methodology and program design.

Any programs should not be the task of individual faculty members but should be a joint effort involving everyone (Ross, 1990), according to Leino (1997:152) in order to enhance reflective thinking about the idea of "beginning of ourselves". Even though the importance of faculty modelling is stressed (Leino, 1997:152; Loughran, 1996:193; Ross,1990; Zeichner &Liston, 1987), it may be the hardest to carry out in big faculties, where the mere organizing and scheduling of the courses are time consuming tasks.

As for the results of the programs, there are self reports and some examples of success but not much systematic evaluation. Researchers have developed their own levels of reflection in research (eg. Hatton and Smith 1995; Ross, 1989) or used Van Manen's levels (eg Loughran, 1996; Kim, 1994; Gore & Zeichner, 1991; Richert, 1991; Ferguson, 1989;). Thus if student teachers in Malaysia are to be assisted to be reflective it is necessary not only to develop a structured framework, but also to find ways of assisting them to use it.

Promoting Critical Reflection in Teacher Education in Malaysia

The context of Malaysian education and education reformation such as 'Vision 2020' was explained in Chapter 1. It is now necessary to expand that discussion and consider why the development of critically reflective student teachers is so important. The curriculum activities and relationships between

different parts of the educational systems in Malaysia are imbued with moral values and universal values, derived from an Islamic point of view. The component subject areas, in the 2 ½ year Basic Teacher Education Course (Primary Education) reflect this. In the Teacher Dynamics syllabus there are book/thinking skills, history of the development of the nation, information technology, Islamic/ moral education, Islamic civilization, communication and social skills. Student teachers in Malaysia are expected to teach each subject in such a manner that their students become capable of applying the Islamic approach to each discipline.

This approach is neither dogmatic nor so free that student teachers fail to receive the basic teaching of Islam. Islamic Education and Islamic Civilization is the course that was given emphasis by the Malaysian government in 'Vision 2020'. The concept of man and man's growth that is found in Islam and the detailed interpretations of that concept through practical realization of many Muslim religious thinkers, are provided for student teachers with a norm and value-oriented methodology. It is therefore, the syllabus in Islamic education in teacher training in Malaysia which has been always looking forward. It includes collected reading materials from all past Muslim thinkers from Ibn Sina (Avicena) to Ibn Khaldun and other experts of human psyche who had spiritual insight into the working of man's passions, desires and spiritual inclinations. According to Zafar Iqbal (1996: 128) works of Muslim thinkers will help student teachers present the Qur'anic concept of the human mind and reveal truth.

In this case, Malaysian student teachers look at the development of the nation under their Teacher Dynamics Program. They learn the history of education in both the East and the West but the Malaysian government is concerned with the development of the Muslim education system. This is because the aim is to create in our student teachers a desire to revise the modern system and adopt that part that is consonant with Islamic and other religious values.

Through this learning the student teachers will thus realize that the curriculum is the external manifestation of the essence of our culture. Just as Dewey could not accept the European curriculum for American schools and universities on the basis that American culture and its growth were very different

from European culture and its history, Mahathir Muhammad (1995: 19) argues that our Malaysian students should learn how our curriculum has to be formulated from Islamic Malay culture based on Al-Qur'an and Hadith, and other cultures that are adapted from Arabic or Japanese or Western civilizations and cultures.

In addition Mahathir states that comparative education likewise has become a very important area which needs to be a compulsory course for all Muslim student teachers. It will enable them to appreciate the fundamentals of pragmatic, humanistic, Islamic, Marxist and other systems of education. They would realize how ideology and religion affect education systems, curricula and even the methods of teaching.

Another important aspect of the teacher education curriculum in Malaysia is the whole range of professional courses including philosophy of education, educational psychology, history of education, educational administration, educational planning and educational technology. In the Malaysian context there are fundamental changes required in the curriculum for teacher education that are highly beneficial for our teachers.

The program like 'Smart Teachers College' (Konsep Maktab Perguruan Bestari) is one of the programs that has been implemented in every college (Nik Azis, 1996: 77) in Malaysia. Once teacher education colleges or institutes made these changes, other concomitant changes would automatically follow and teacher education would assume a completely different character (Mahathir Muhammad 1995:19). Departing from this fragmented approach to teacher education the book will describe why Malaysian teacher's training colleges are more likely to foster reflective practice in their beginning teachers' program.

Coaching and Scaffolding in Reflective Practice

In the past decade, hundreds of classroom teachers have been introduced to coaching. The notion of coaching in early field experience originally was introduced by Joyce and Showers (1980) as a component of in-service training for experienced teachers.

Studies have shown that peer coaching is effective in helping teachers to apply new skills and strategies in their classrooms, to develop a sense of collegiality and professionalism, and to assume a reflective stance toward their teaching. The literature abounds with reports of teachers who have been helped through participation in coaching to use new approaches more skillfully, appropriately, and frequently (Neubert and Binko 1992; Strother 1989; Neubert, 1988; Baker and Showers, 1984). Most of these reports conclude that peer coaching arrangements have been enthusiastically embraced by teachers.

According to Strother (1989) peer coaching is also an effective practice for preservice teacher education. Preservice peer coaching between student teachers is reciprocal, in-class assistance from one student to another as they attempt to incorporate new teaching skills, strategies, and approaches.

Wynn (1994) suggested that the typical peer coaching cycle include first, a preview conference, during which the student teachers discuss the focus of the upcoming lesson. Second, is the observation of the lesson by the student teacher coach. Third, is the follow-up conference, during which the student teachers analyze the completed lesson. It is Wynn's cycle that is employed in the book.

The professional school community includes the principal, the executive in the school and all the teachers including those who have been appointed to be co-operating teachers. These are expert teachers in their field and student teachers are novices.

In this book, teaching practice is the field in which we can see how the professional community play their roles as coaches and help student teachers to develop reflective practice in school settings. Other than coaching, student

teachers need scaffolding in the process of reflective writing. This is because language used in writing links thought and action.

Samaras and Gismondi (1998) have shown that language links thought and action. They suggested that learners participate in social action with assistance from more experienced learners, gradually becoming more independent and building the thought that moves the learning transactions forward. Language is central to this action /thought connection. Learners are immersed in language and use language for social interaction. Language plays a critical role as learners focus on new questions and unfamiliar contexts for continuing social action.

When language and thought intersect within particular contexts, learning happens and learners can be transformed. In addition, Patterson (1996: 6) argued that these kinds of learning transformations happened most routinely in environments rich with literacy and life experiences, opportunities for social action, and a climate supportive of risk-taking and problem-solving. In such environments, student teachers are encouraged to make leaps from the known to the unknown, from the familiar to the new, from clarity into ambiguity.

In these environments coaching and scaffolding in school motivate their student teachers to help create classrooms filled with opportunities to ask questions, to look for answers, to share what they know and develop processes of critical self reflection.

The process of critical self-reflection, however, can be fraught with tensions and for this reason students need close support and frequent encouragement (Tann, 1993: 58). According to Cochran-Smith (1991) standard practices of cooperating teachers and mentors that emphasize emotional support, practical advice, and technical proficiency will not help novices learn to teach.

Feiman-Nemser (1998:72) provides some clues about the kinds of learning opportunities to explicate one's knowledge of teaching, to develop observation skills, to learn, to talk about teaching in productive ways, to clarify what learning to teach entails, and to analyze dilemmas of mentoring. Fortunately, the tools of mentoring ie, observation, co-planning, co-teaching, joint inquiry, critical conversation and reflection-are also the tools of continuous

improvement in teaching. By helping teachers become good mentors, we can also foster a 'culture of mentoring' in which work on teaching among teachers becomes commonplace.