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**The Contribution of the Case Method
to the Development of Teacher Expertise**

Ursula Elisabeth Mueller

A Thesis

in

The Department

of

Educational Studies

Presented in Partial Fulfillment of the Requirements
for the Degree of Master of Arts at
Concordia University
Montreal, Quebec, Canada

August 1995

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ISBN 0-612-05081-5

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Abstract

The Contribution of the Case Method to the Development of Teacher Expertise

Ursula Elisabeth Mueller

Traditional teacher preparation and in-service training programs are not serving teachers well. There is a large gap between the complex reality of daily classroom life and the theoretical principles and guidelines included in university courses and staff-development curricula.

Teachers do not feel fully prepared when they are teaching their own classes. They have completed their university programs with some classroom experience and have been exposed to the theories of teaching, but they find that the reality of the classroom is very different. Life in the classroom is complex and unpredictable. The teacher must study, interpret, select and understand many different events, thoughts and options during the course of a lesson.

This thesis examines the potential of the case method as an in-service educational tool for addressing these problems. The first chapter elaborates on the problem. The second chapter examines the nature of teacher expertise as it relates to the artistry required of teachers and the complexity of teacher

thinking and decision-making. In order to acquire teacher expertise, teachers must develop critical thinking, problem solving and practical knowledge. The third chapter examines the requirements of any potential educational tool in order to be useful to adult learners, in particular to teachers as adult learners. In the fourth and fifth chapters, the case method itself is analyzed and found to be a technique which can help in the development of the complex expertise required by teachers in addition to serving their needs as adult learners.

Dedication

This thesis is dedicated to my father,
Hans Mueller (1903-1983),
whose great love for me
I am forever grateful for.

Acknowledgements

I would like to thank my advisor, Dr. William Knitter, for his patient suggestions and encouragement, my mother, Maria Neureuther-Mueller, for her perpetual love and help, my husband, Michael Judson, for his admiration for me and his irresistible passion for living and especially my son, Martin, for making my life so much richer.

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PREFACE

Introduction to "The Case of the Novice Teacher"

There once was a recent graduate of the one-year graduate teacher education program of McGill University. She was hired by a school to teach English and French in grades nine, 11 and at the CEGEP level. Her teaching experience was limited to 12 weeks of student teaching during which she acquired some expertise in teaching but mostly an appreciation for just how complex and difficult teaching could be.

In July, she was given the outlines of the courses she would be teaching and copies of the required texts. In August, she spent a few hours with the teachers who had taught these courses before. They gave her some helpful suggestions regarding subject matter and the administrative work required of her. In September, she was given a schedule and class lists. And then she was completely on her own.

Teaching was very different from student teaching, and even more removed from the classes she had attended at the university. She found that there was a vast amount of knowledge she was acquiring on a daily basis through trial and error. She felt frustrated because the foundations courses offered at the university seemed to have little in common with the reality of the classroom.

She began to value the time she had to spend with colleagues. During rushed lunches, free periods and the odd pedagogical day, she sought out the more experienced teachers and told them of particular situations she had

encountered in her classroom. They would tell her stories about their students, about similar situations they had encountered over the years and about possible, practical solutions. She found these anecdotes memorable, inspiring and very helpful.

CHAPTER I

Introduction

Traditional teacher preparation and in-service programs are not serving teachers well. There is a large gap between the complex reality of daily classroom life and the theoretical principles and guidelines included in university courses and staff-development curricula.

How do teachers experience this gap? For one thing, they do not feel fully prepared when they are teaching their own classes. The training and education they have received do not correspond with the practice of teaching. Many feel that success in the classroom is determined more by natural ability than any kind of university training and preparation. They have been required to follow many courses that are of some use to them but the knowledge they have acquired does not reflect or prepare them for the complexity of life in the classroom. Teachers actually complete their university programs with very little classroom experience. When teachers start their careers, they find that they have been exposed to the theories of teaching, but soon discover that the reality of the classroom is very different. They were trained with guidelines and teaching suggestions listed in textbooks and repeated by professors. Now, they are on their own. They must suddenly deal with at least 20 more or less motivated individuals, ambitious teaching objectives and very little time. Clearly, the training they have received has left out certain very important things. One of their greatest assets is the information gleaned from experienced colleagues during rushed meetings between bells.

Teacher education and training is extremely useful in preparing teachers

for some areas of teacher knowledge and expertise. However, the expertise related to practice that is required by teachers could be improved. The most popular technique to prepare teachers for the complex world in the classroom is the student-teaching experience. Education students work as interns in classroom, spending more or less time teaching depending on the institution they are attending. However, this is not the only way. It is important to consider the variety of in-service techniques that can help the teacher continue to increase his expertise.

This thesis considers the inadequacy of teacher preparation in certain specific areas of expertise by briefly looking at current programs. The second chapter will explore the nature of teacher knowledge and expertise and how teachers acquire it. This chapter will define and explain the complexity of expertise and which of its aspects are central to the teacher's survival in the classroom and not easily transmitted through those methods traditionally used in teacher education programs. The third chapter examines the findings in adult education that are important when selecting a method that helps novice and experienced teachers develop an intricate skill such as expertise. It is important to find a teaching tool that is not only able to help teachers develop some of the more complex aspects of expertise but also meets the challenge of serving adult learners well. The fourth chapter will closely examine the case method, a teaching and learning strategy that is ideally suited for this type of educational problem in this type of situation.

The case method's characteristics as a teaching tool meet the requirements outlined for the development of knowledge and expertise and effective adult learning in an in-service situation. But what is the relevance of the contents and procedures of teacher training for the functions which a teacher performs every day? What strengths and limitations does the case method have in the training and continuing education of teachers? How does the case method address those characteristics describing the nature of teacher expertise and those of adult learners? Are specific areas of teacher knowledge better suited to the case method? These are the central questions that this thesis will address.

Present Program Inadequacies

Much criticism has been voiced against present teacher education programs. This criticism stems from the fact that teachers have had great difficulty applying what they have learned at the university and in in-service programs to the classroom. It is these inadequacies that must be addressed to prepare teachers for the complexities of daily classroom life.

There is clearly a problem with teacher education as it is. Many theorists have begun to recommend extended programs of initial teacher preparation in order to prepare teachers better for life in the classroom. Denmark and Nutter (1984) define education as a profession that draws on the knowledge of many supporting disciplines. Thus, effective teaching can be built on a scientific base, but as with other professions, it also requires important components of

judgment to adapt performance to situation. It is this judgment that is so difficult to teach and to learn. Professional knowledge is what allows a teacher to consider the individual situation and instantly come up with a solution.

Denemark and Nutter (1984) are dismayed because teachers do not now receive a fully professional preservice education. Teacher education is not grounded in the basic concept that defines a "professional" education: that the graduate has attained the competence necessary to guarantee safe practice with clients. They believe that most new teachers achieve the minimum safety level through trial and error, knowledge that colleagues have the time to share as well as some direction recalled from their university courses.

The student-teaching experience is central to preparing teachers for the classroom. Kennedy (1987) has proposed the use of different types of apprenticeship, based upon the understanding and type of expertise needed for different types of professionals. It is the expertise required for the complex world of teaching that must be carefully examined. Kennedy as well as other authors and teachers have demonstrated that in spite of practice-teaching, there is much opportunity to improve teacher expertise through other strategies included in in-service training.

Jersild (1966) in Denemark and Nutter (1984) found that novice teachers suffer a great deal of anxiety due to the discrepancy between their ideal goals and the actual techniques they find themselves using in their practice. Hermanovicz (1966), in Denemark and Nutter (1984) also found that many

beginning teachers regard the professional part of their education, except for the student teaching, as having little or no relevance to the reality of classrooms. These are the teachers who clearly do not feel prepared to teach following their education. They need to begin to learn to reflect in action, even as they collect valuable information from their more experienced colleagues. The case method provides a forum for these activities.

What are the main problems that teachers have when they are in their classroom? Beginning and experienced teachers consistently point to two areas of need in their professional practice - discipline and motivation according to all of the researchers reviewed in Denmark and Nutter (1984) such as Adams (1979), Cruickshank, Kennedy and Myers (1974), Gorton (1973), Ingersoll (1976) and Kennedy, Cruickshank and Myers (1976). These are specific examples of areas of teacher knowledge that are quite complex and require greater preparation than can be provided through a textbook or a university lecture.

Some changes have been made to teacher education programs to remedy many of the problems outlined in this section so far. For instance, Denmark and Nutter (1984) outline how teacher educators have come to recognize that prospective teachers need a more graduated transition from their university courses to full status as classroom teachers. They applaud the fact that undergraduate teacher education programs have a field component designed to supply examples of conceptual knowledge as reflected in the real world of the

classroom.

But based on experience, it would appear that these practical student-teaching experiences are not enough because they are still putting the student in a learning situation governed primarily by trial and error. There is little opportunity for the student to learn from his supervising teacher because he is observed only on a few occasions in a relatively artificial atmosphere. The student has not been taught to analyze his own teaching.

Teacher education has also recently acquired some excellent instructional techniques to supplement the student teaching experience. Denmark and Nutter (1984) provide the examples of microteaching, protocol materials and simulation, defined as "the creation of realistic experiences to be played out by participants in order to provide them with lifelike problem-solving experiences related to their present or future work (Cruickshank, 1968, p.231)." However, these techniques are still not used on a very large scale. Students are still coming out of teacher education programs without enough skills to deal with the average classroom.

Many authors argue that the general idea for reforming teacher education in the direction of integrating theory and practice involves internal restructuring and continuity within and between pre-service, induction and continuous professional development for teachers. Fullan (1985) believes that this entails changes in the curriculum or learning experiences and in the conditions under which learning occurs at each of the three levels.

The main theme of these revisions is best captured in Schön's (1987) concept of the reflective practitioner:

Managers do reflect-in-action, but they seldom reflect on their reflection-in-action. Hence, this crucially important dimension of their art tends to remain private and inaccessible to others. Moreover, because awareness of one's intuitive thinking usually grows out of practice in articulating it to others, managers often have little access to their own reflection-in-action (p.31).

It is the stimulation of individual reflection in relation to action, and collective (two or more people) sharing of an analysis of this practice-based reflection that is at the heart of reforms in teacher education at all three levels of Fullan's (1985) proposal. Changes will be required within and between the three levels. An encouraging sign is that approaches which have stressed field-based reflection among groups of teachers have had very positive effects on teacher thinking and the relationship of theory and practice (Bolster, 1983, Clark and Yinger, 1977 both in Fullan, 1985).

It is clear that teacher education programs need to be improved. There is a definite need for teachers to be prepared differently in order to be professionals and gain expertise in their classroom. The education provided in pre-service and in-service programs is not preparing them adequately for the difficult job in the classroom with its extremely complex and unpredictable environment.

Teacher Expertise

In order to consider the contribution of the case method to the development of teacher expertise, it is important to study the nature of teacher

expertise and consider how teachers acquire it.

The primary assumption in arguing for the use of cases in the development of teacher expertise is that teaching is an art. Teaching calls for "intuition, creativity, improvisation and expressiveness" (Gage, 1977, p.15). Teaching is made up of very complex thoughts and actions that must be performed immediately. It is impossible to predict the many events, thoughts and options which are studied, interpreted, selected, and understood by a teacher during the course of a typical lesson.

Thinking like a teacher is a "creative way of thinking, a process of problem-framing and inquiry, a process of design" (L. Shulman, 1992, p.7). Teachers must be able to analyze complex situations, make informed decisions and act on them very quickly.

A preliminary review of the literature indicates that certain aspects of teacher knowledge and expertise are more complex than others. It is important to address these aspects of expertise because they are necessary for the teacher's success in the classroom and because they are very difficult to transmit. Some of the most important findings in the area of teacher expertise and knowledge will be considered in order to compare them to the characteristics of the case method and in-service education.

Teacher expertise is a complex concept because of the difficult situations teachers find themselves in on a daily basis. The reality of life in the classroom involves the making of many decisions in very little time. According to

Westerman (1991), recent research on teacher thinking has changed the conceptualization of the teacher as simply a transmitter of knowledge to an individual who must make many complicated decisions while interacting with students. In some ways, these recent findings reflect an earlier image of the teacher as described by Dewey.

Lampert and Clark have come up with an excellent definition of teaching that is consistent with this view. They define it as "a complex act requiring the moment-by-moment adjustment of plans to fit continually changing and uncertain conditions" (1990, p.21). The knowledge teachers use in making those adjustments is described as "contextual, interactive, and speculative".

Experts are not simply guided by the schemata, or knowledge structures, that reside in their minds, as many researchers previously believed. New studies show that expert knowledge may be more closely connected to particular contexts than was previously assumed. Dreyfus and Dreyfus (1986) even found that the knowledge experts use could be better described in terms of a case-by-case response to the particulars of the problem they are trying to solve (Lampert and Clark, 1990).

Teachers develop expertise in both pedagogical and content knowledge. In addition, they must develop expertise in how these two forms of knowledge interact (Berliner, 1986 in Westerman). Parker and Gehrke (1986 in Westerman) describe a mental representation that is formed by the teacher during planning and serves as a guide to move the lesson forward, while

interactive decision-making allows the teacher to adapt the lesson to students' needs as the lesson progresses.

Many educators consider the teaching of thinking and not the teaching of knowledge, as the key to the future (Wales, Nardi and Stager, 1991). The National Research Council's report on Education and Learning to Think defined "higher-order thinking" as thinking that is complex, requires judgment, involves multiple solutions, conflicting criteria, uncertainty, and self-regulation and effort that result in structure and meaning. This is precisely the kind of thinking that is required of the expert teacher.

Professional expertise goes beyond the fundamental set of skills and knowledge that is included in the basic curriculum. It involves the use of "general strategies, personal orientations, and habits of mind" (L. Shulman, 1992). An expert teacher must be able to formulate educational problems, design strategies that fit a particular group of students in a particular setting, and reflect on issues of ethics, policy and pedagogy that affect daily decisions in the classroom.

One common theory of the development of professional expertise is that professional knowledge consists in large part of the accumulation of experiences in the form of concrete cases. Experienced professionals develop knowledge based on the problems they have encountered, what caused these problems and the approaches that may possibly lead to a solution. The case method provides the teacher and the student of education with a better

understanding of the profession.

Various authors have studied and defined teacher expertise. Although the definitions vary somewhat, they all include the element of artistry included in teaching as well as an examination of the complex nature of teacher thinking and decision-making.

In order to develop a conception of practice, I will consider those authors who have provided some useful frameworks for understanding traditional and new views of professional expertise. Each of these authors demonstrates the necessity of several different kinds of expertise throughout teacher education, training, practice and continuing education.

In the Chapter II, the chapter on Expertise, I will first look at John Dewey's, Donald Schön's and Mary Kennedy's definitions of teacher expertise and how it is acquired. Although their understanding of the nature of expertise varies, all three of these scholars have insisted that in order to attain professional expertise, teachers must have both critical-thinking and problem-solving skills. Kennedy also provides an in-depth, general look at expertise by covering the widest possible range of definitions of expertise.

I will then consider the understanding of expertise by Ronald Cervero, Freema Elbaz and Lee Shulman. These three authors have also defined the nature of teacher expertise, but their focus has been on the importance of practical knowledge in the exercise of effective teaching. They make an important contribution to the understanding of teacher knowledge and

expertise, especially as it connects to practical knowledge, an important addition to the importance of thinking and decision-making provided by Dewey, Schön and Kennedy.

All of these authors and researchers have also found that in addition to the complex nature of teacher knowledge and expertise, it is also an ability that can not be easily transmitted to novice teachers.

It is important to understand the complexity of the thinking process associated with the professional teacher in order to be able to determine the usefulness of the case method as a teaching tool to help improve teacher expertise. In the chapter on Teacher Expertise, I will demonstrate that it is in fact a complex definition of expertise that best reflects the gap new teachers experience when they set foot in the classroom. This is the type of expertise required to make certain complex decisions and act upon them. This is the type of expertise teachers require and must be trained for.

Adult Education

In order for the case method to be effective when attempting to increase teacher knowledge and expertise, it is important that this method also be an effective tool for adult learners.

Even if the case method is well-suited to help teachers gain knowledge and expertise, there is the important aspect of teachers as learners to consider. In the situation of the continued development of knowledge and expertise, teachers must play the role of adult learners, although they are also adult

learners of some very complex and specific material. Thus, the case method must be able to meet the needs of the teacher as an adult learner in addition to teaching expertise and artistry.

In Chapter III, I will first consider some of the more general knowledge about adult learners. This includes a review of some of the basic learning conditions and general guidelines essential to successful adult learning and staff development as defined by Main, Knowles, Doll, Smith, Dunn and Brookfield.

There are many reasons to suppose that when they are learning, teachers have the same needs as other types of adult learners. However, certain authors have chosen to address some of the problems specific to in-service teacher education. It is important to note, however, that their perspective on teacher development comes from adult development, as it was outlined in the previous paragraph. The themes focused on include: the importance of personal growth and experiential learning (Katz), the personalization of in-service education (Corrigan, Harris and Main) and general conditions for success (Cervero, Doll, Donoghue and Harding and Sayer).

Many other researchers have chosen to draw upon adult development theories to aid in the study of teacher professional growth and to be able to understand the needs of teachers at different points in their careers. This is very important for the development of in-service education programs because the needs of teachers must be understood in order to create useful solutions.

In this section, I will review these different teacher development theories (for

example, those of Oja, Gould and Loevinger, among others). Although these teacher development theories vary greatly, they are all founded in theories of adult development and provide a variety of frameworks that help understand professional growth.

The two chapters on teacher expertise and teacher education set out the conditions for the learning environment within which the case method must excel as a learning tool. Not only must the case method be flexible enough to be a meaningful tool to teach and transmit teacher expertise, but it must also meet even more and very different conditions set out by the chapter examining teachers as learners.

The Case Method

The case method has become increasingly important as interest in "narrative" forms of thinking has increased. Narrative forms of thinking (versus abstraction and generalization, Bruner 1986) seem to be more compatible with how teachers organize their experiences in order to develop professional knowledge. The case method is unusually effective in preparing teachers for the classroom, a complex, unpredictable environment but it is also a highly effective tool that meets the many requirements set out by adult education and teacher professional development theories. In Chapter IV, I will review and discuss some of the central writings on the case method.

The case method, according to L. Shulman, represents a potentially codifiable body of knowledge which conveys the wisdom of practice. The case

method also provides the teacher with the opportunity to be more reflective and fulfils the need for discussion with other colleagues. The case method can be used to focus on the complexity of practice - in this instance, the purpose of the case is to educate the students in skills of analysis, decision-making and problem-solving. The case method can also be used to provide specific examples of established theories or the most common experiences faced by teachers. In addition to this, cases can also be used for personal study and self-reflection.

The case method is ideally suited to help teachers develop many different types of skills that are central to the art of dealing with situations of uncertainty for which many types of solutions may be possible - such as the typical classroom situation. In Chapter IV, I will look at other purposes of the case method, many of which are ideally suited to help teachers develop expertise and knowledge. These include teaching concepts of a theoretical nature, serving as models for professional practice and images of the ideal.

I also examine the advantages of the case method both as a teaching tool to develop expertise and how it is ideally suited to meet the conditions set out by theories of adult education and teacher professional development. For instance, cases motivate teacher and learner and help students avoid overgeneralizations. They also serve as important catalysts in the discussion phase in the classroom or staffroom.

The case method also has those characteristics necessary to make it a

useful and relevant tool for the adult learner in an in-service program. It has long been used for adult learners because it provides students with the opportunity to analyze problems and discover solutions based on their own experience and studies or those of other students. It is a problem-solving model that can be applied in a highly personalized way.

The case method has long been a cornerstone of professional education in medicine, business and law but has only recently been used in the preparation and continuing education of teachers. It has the qualities necessary to serve as a challenging tool to improve teacher knowledge and expertise. Although expertise is a very complex notion, the case method can be adapted to reflect those confusing incidents a teacher must deal with every day and provide a forum for self-reflection and discussion with colleagues. It also has the qualities necessary to serve as a powerful tool for adult learners.

The case method can contribute very much to teacher preparation and in-service programs which have not always served teachers well. The case method provides a way to help teachers who must face the complex reality of daily classroom life with only theoretical principles and guidelines from university courses and staff-development curricula. The case method is an important instructional solution that can contribute to the development of teacher expertise because it can not only deal with its complex and varied nature but can also meet the complex and varied requirements of the teacher as an adult learner.

CHAPTER TWO

Teacher Expertise

In order to consider the contribution of the case method to the development of teacher expertise, it is important to study the nature of teacher expertise and consider how teachers acquire it. The literature indicates that certain aspects of teacher knowledge and expertise are more complex than others. It is important to address these aspects of teacher knowledge and expertise because they are central to the teacher's survival in the classroom and because they are so difficult to transmit. These more complex types of expertise will be better suited to the case method. The numerous problems of practice can not always be solved in the same way. This is why it is important to consider the many different types of knowledge and expertise needed for teaching.

Teacher expertise is primarily a complex concept because of the difficult situations teachers find themselves in on a daily basis. The reality of life in the classroom involves the making of many decisions in very little time. Situations can vary greatly from day to day and teachers must be ready to meet the challenge in order to maintain their sanity and to ensure that the students can learn.

Teaching is an art. It calls for "intuition, creativity, improvisation and expressiveness" (Gage, 1977, p.15). This means that the teacher who has mastered his profession can deal with a number of complex thoughts and actions which must be performed instantly. In addition, many of the events which occur, the options which are considered, weighed and rejected, are

impossible to predict because they vary so much given the context, the students, the lesson and even the day of the week and the hour of the day.

The detailed and correct analysis of such complex situations, the ability to come up with many possible solutions and then to make informed decisions and the power and competence to act on them very quickly are the skills held by a teacher who has become an expert.

However, knowledge structures that reside in the minds of these expert teachers can also explain some of the actions performed. For example, Parker and Gehrke (1986, in Westermann) describe a mental representation that is formed by the teacher during planning and serves as a guide to move the lesson forward. But these schemata, or knowledge structures, are also affected by interactive decision-making while allowing the teacher to adapt the lesson to the students' needs as the lesson progresses.

The central definitions of teacher expertise contain an element that recognizes the importance of artistry when dealing with some of the more difficult instances where expertise comes into play. This is where the case method should be of greatest service to teach and further develop teacher expertise.

Various authors have studied and defined teacher expertise. These definitions vary greatly but all consider the complex nature of teacher-thinking and decision-making. This understanding of expertise implies a radical shift in the conceptualization of the teacher: the teacher is not considered simply a

transmitter of knowledge, but an individual who must make many complicated decisions while interacting with students.

In order to develop a conception of practice, I will consider those authors that have provided some useful frameworks for understanding traditional and new views of professional expertise. Each of these authors clearly demonstrates that teachers acquire several kinds of expertise throughout their education, training, practice and continuing education.

John Dewey, Donald Schön and Mary Kennedy have each identified important aspects of the thinking process as it is associated with the professional. All three have insisted that in order to attain professional expertise, teachers must master critical thinking and problem-solving. However, their understanding and explanation of the nature of expertise varies. In addition to this, Kennedy has provided definitions of expertise which cover a very wide range ranging from expertise as technical skills (based purely on the specific tasks professionals must perform) to expertise as deliberate action (based on the interactive relationship between analysis and action, with each one influencing the other).

Ronald Cervero, Freema Elbaz and Lee Shulman have also defined the nature of teacher expertise, but their focus has been on the importance of practical knowledge in the exercise of effective teaching. They contribute to the understanding of teacher knowledge and expertise, especially as it connects to practical knowledge, an important addition to the aspect of thinking and

decision-making provided by Dewey, Schön and Kennedy.

Importance of Critical Thinking and Problem Solving

John Dewey

It is important to consider Dewey's basic understanding of knowledge because it has served as a foundation for the other theorists. In John Dewey's 1904 proposal entitled "The Relation of Theory to Practice in Education", he suggests that it is wrong to believe that becoming a teacher is based only on the acquisition of the necessary tools of the profession, an understanding of the subject matter, control of the classroom and skill and proficiency in the act of teaching without using practice as an instrument of "real and vital theoretical instruction" (p. 9).

Dewey also considers the process of reflectivity which he defines as constant intellectual criticism. The teacher's understandings and skills have become incorporated in "mental habit, have become part of the working tendencies of observation, insight and reflection." These teachers can work "automatically, unconsciously, and hence promptly and effectively" (p.15).

Dewey asserts that teachers are so "full of the spirit of inquiry, so sensitive to every sign of its presence and absence, that no matter what they do, not how they do it, they succeed in awakening and inspiring alert and intense mental activity in those with whom they come in contact" (pp. 23-24).

Dewey (1946) was very much opposed to the oppressive power of rational thought in the same way as Schön objects to the same concept which

he calls technical rationality. Dewey objects strongly to the belief that rationality is the only source of our understandings. He writes: "To reflect is to look back over what has been done so as to extract the net meanings which are the capital stock for intelligent dealing with further experiences. It is the heart of intellectual organization and of the disciplined mind" (p.110).

Dewey also describes the importance of situation and environment in the thinking process. He feels that there is never an isolated event. It is always part of a world that is experienced, that is, a situation (1938). This view is similar to Schön's understanding of the complexity of events. He describes real-world problems as presenting themselves not as problems, but as messy, indeterminate situations (1990).

Dewey makes a famous distinction between laboratory experiences that provide instant mastery of discrete skills and those that develop the intellectual methods required for eventual mastery of practice. This resembles the distinction between Mary Kennedy's first and last definitions of expertise, namely that of expertise as a technical skill and expertise as deliberate action.

Dewey (1910, 1933) argues that those who fully understand the thinking process delay action long enough to understand the situation as fully as possible, to consider the end that they hope to achieve, to generate and weigh as many options as they can, and to plan before they take action. Thinking does not just involve painting a mental picture or understanding and accepting the beliefs of an authority. Thinking is the creation of beliefs based on evidence

supported by personal mental activity.

Dewey predicted the problem of a majority of teacher education programs: they do not attempt to relate theory and practice. By including a field component, universities provide students with the opportunity to adjust to the routines of teaching without any development of the underlying knowledge base (Fullan, 1985).

Dewey's understanding of thinking, teaching and reflection demonstrates the complexity of these skills and sets the stage for the more detailed but similar definitions outlined by Schön. According to Harris (1983), it is Dewey's conceptions of knowledge and learning which have inspired Schön's epistemology of professional practice and have been illustrated with convincing case rhetoric, that is, concrete examples accompanied by critical case analyses.

Donald Schön

Schön (1991, in Harris) has argued for a new epistemology of professional practice: it is essentially defined as judgment and wise action in complex, unique and uncertain situations with conflicting values and ethical stances. He believes that in addition to theoretical and technical knowledge, effective professional practice requires reflective and practical knowledge as well.

Schön (1983) considers the relationship of professional knowledge to practical competence and professional activity. He illustrates an epistemology of practice that varies significantly from the traditional, technical epistemology

that generally informs a professional's knowledge base.

He considers that his concept of reflectivity-in-practice is very different from the traditional generation of professional knowledge that is specialized, firmly bounded, scientific and standardized. This latter definition assumes that true knowledge exists only if it rests on empirical evidence and can be supported by the theories, techniques and tests of the natural sciences.

Schön's greatest criticism of this view of knowledge is that it appears as "context-free" knowledge. He begins by challenging what he considers to be the "dominant epistemology of practice":

According to the model of Technical Rationality - the view of professional knowledge which has most powerfully shaped both our thinking about the professionals and the institutional relations of research, education and practice - professional activity consists in instrumental problem-solving made rigorous by the application of scientific theory and technique (p. 21, 1983).

Munby and Russell (1989) explain that within technical rationality, practice is guided by principles of the applied sciences, which are in turn guided by the basic sciences. Practice is at the lowest point of the hierarchy, with theory at the highest point.

Schön (1983) emphasizes the importance of practice by distinguishing between problem-solving and problem-setting. He writes that practitioners do not only problem- solve, but that they also identify, define and redefine the problems of practice. Technical rationality has not considered the problem-setting aspects of a professional practitioner's work. He outlines some of the elements involved in problem-setting:

When we set the problem, we select what we will treat as the 'things' of the situation, we set the boundaries of our attention to it, and we impose upon it a coherence which allows us to say what is wrong and in what directions the situation needs to be changed. Problem setting is a process in which, interactively, we name the things to which we will attend and frame the context in which we will attend to them (p.40, 1983).

Technical rationality is grounded in positivism. The basic understanding of positivism is that all meaningful statements must be either logical inferences or sense descriptions. This has nothing to do with problem-setting and has removed the very important element of context when looking at a problem. In addition to problem- setting, Schön argues that the acts of framing and reframing to generate new hypotheses are essential for practitioners to achieve their goals.

However, when looking at professional knowledge, it appears that one of the critical features of professional thinking and problem-solving, that is, knowledge, is that the scenario is situational. Problems of practice exist because they can not be predicted and standardized according to rules of practice. The most important problems in practice are characterized by complexity, uniqueness, uncertainty and conflicting values.

Problems of professional practice can not be considered in an environment free of context because it is the context that generally provides the abundant aspects that create a problematic situation. Schön searches for "an epistemology of practice implicit in the artistic, intuitive processes which some practitioners do bring to situations of uncertainty, uniqueness, and value

conflict" (p. 49).

The essence of Schön's reflection-in-practice can be defined by the "spontaneous, intuitive performance of the actions of everyday life" (p.49). An expert practitioner's responses are both thoughtful and spontaneous in the face of any of the varied situations that he may be confronted with. For example, in a classroom, the situation is affected by each of the students, the school, the lesson plan, the time of day, etc. The practitioner not only reacts spontaneously, but thinks about what he is doing in order to become more reflective about his practice and to develop more expertise.

Reflection-in-action and reflection-about-action are central to the "art" by which practitioners deal well with situations of uncertainty. The first occurs in the midst of action while the second occurs in the tranquillity of a postmortem or another occasion for analysis. Both are stimulated by perplexing, interesting and extraordinary events and problems that cannot be included in the standard categories of a practitioner's knowledge. These problems need to be articulated and codified to improve expertise and to teach aspiring practitioners.

Schön (1983) considers reflection to be critical for experts in development, renewal and self-correction. However, it is also necessary in the initiation of novices, in combination with demonstration, supervision and codification of practice.

He proposes the general concept of "the reflective practicum" as an institutional form and forum for reflective practice. It provides opportunities for

practitioners - often novices and experts - to reflect together on practice, using examples of practice in the form of cases or demonstrations.

The main features of a reflective practicum include the following: people learn by doing, by dealing with complex problems of practice, together in a simulated situation which represents the world of practice. Participants can try again and can control the pace of their learning. Novices learn from experts, through reciprocal reflection-in-action and reflection-about-action related to demonstrations and exemplars of practice. Experienced professionals may also learn with each other through reflection-about-action.

Schön (1983) considers the importance of artistry, which he defines as "an exercise of intelligence, a kind of knowing, though different in crucial respects from our standard model of professional knowledge" (p. 13). He believes that in the area of professional practice, applied science and research-based technique occupy a critically important though limited territory, bounded on several sides by artistry. "There is an art of problem-framing, an art of implementation, and an art of improvisation - all necessary to mediate the use in practice of applied science and technique" (p. 13).

Mary Kennedy

Kennedy (1987) considers the nature of expertise and how it is acquired. In particular, she reviews four definitions of expertise, each of which represents a different view about how expertise influences professional actions. Her definitions are based on different assumptions and each has a different purpose

of instruction. She also manages to sort the majority of all of the methods of instruction into one of her categories. Each of her definitions provides an understanding of aspects about expertise that the other neglects; however, each definition is also incomplete in some way.

The first definition she treats involves expertise as technical skill. This definition originates from the specific tasks which an expert must perform. Kennedy uses teacher education as the primary example of professional education that has repeatedly attempted to define teaching expertise on the basis of the technical tasks of teaching. This method assumes that not only can the many skills involved in expert teaching be identified, but that they can also be transmitted to novice teachers and used in a practical teaching situation.

Unfortunately, this definition completely disregards the artistry of professional practice, as it is defined by Schön. It does not take into account professional judgment and thinking which must be used in order to decide whether or not to apply a particular skill. Most importantly, it reduces an extremely complex teaching situation and the practitioner's expertise and artistry to a list of simplistic observable behaviours that do not do justice to the complexity represented by the many individuals in the classroom, the personality of the teacher and the subject matter at hand. Kennedy concludes that it is important to include skills in professional education but that emphasizing them to the exclusion of other aspects may not facilitate practice.

Kennedy's second definition considers expertise as the application of theory or general principles. In this instance, the importance is placed on those general principles and theories that enable practitioners to treat particular cases as general categories about which something is known.

It is assumed that general principles can be applied and modified to particular situations which are identified as illustrations of such principles. This kind of theory has been used as part of an effort to provide professional schools with more intellectual prestige to demonstrate that they do in fact belong in universities. Kennedy notes, however, that not all relevant principles are derived from science. Professional practice can be guided by principles derived from, for example, experience or social norms.

This definition expands the definition of expertise to include not only the application of skills, but also the recognition of situations in which it is necessary to do so. The development of a theory base recognizes the need of professionals to solve problems and make decisions in very complex and ambiguous situations.

One criticism voiced against the teaching of theory followed by field experience is that students may not see the relevance of theory until they have practised and that, early practice may improve a student's appreciation for theory learned later on (Roberts, 1985, Morehead, 1973 in Kennedy, 1987).

Unfortunately, this definition does not take into account the difficulty in applying principles concerning a single issue to situations containing many

different dimensions, nor of what to do in the case of conflicting principles. It also inhibits professional judgment because practitioners may only attend to the variables outlined in the principle which may only represent a small segment of the reality.

In a similar way, Gage (1985) argues that the practice (of teaching) is improved when science is used to guide practice, but that practice consists of artfully drawing on these principles to meet the special demands of each new situation. He distinguishes between a science of teaching and a scientific basis of teaching. He considers that the former idea, a science of teaching, is incorrect. This is the understanding that good teaching can be attainable by "closely following rigorous laws that yield high predictability and control" (p. 17, 1985). Both the skills and the principles approaches assume that expertise consists of prescriptions for what to do, and that these guidelines derive from theory or from empirical investigation of practice.

This has important implications for the understanding of knowledge: for instance, in the case of teacher education, it assumes that the teaching profession contains codified knowledge. This implies that everything that needs to be known by novice teachers has been discovered, developed, outlined and understood by others and can now be transmitted to them. Clearly, this understanding does not take into account the complex judgments and difficult, rapid decisions that a teacher must make on a daily basis.

Kennedy's third definition considers expertise as critical analysis.

Although it still suggests the use of certain solutions to handle situations, it provides a paradigm for examining and interpreting them. General principles help to interpret specific cases. Many professional schools emphasize analytic technique. They concentrate on making the students capable of thinking in a certain way, while excluding technical skills and basic science from their curricula.

Students are provided with difficult situations for which there are no answers and which require complex decision-making. They must also decide whether or not a particular case is actually an example of a general case. Unfortunately, it appears that there is very little attention paid to the codified knowledge necessary to understand each situation well. Kennedy also notes that process is emphasized over content and that students are able to analyze cases but are often unable to come to a final decision and to act upon it.

Students are expected to be able to apply routinely the paradigm of professional reasoning to new situations. However, as professionals, they should also be able to view cases from other perspectives, especially in a field such as education which calls upon many different disciplines. This view of expertise considers that its development essentially takes place before practice.

The fourth definition describes expertise as deliberate action. This denotes the interactive relationship between analysis and action and resembles Schön's concept of the reflective practitioner.

Expertise as deliberate action considers action an integral part of analysis.

Successful deliberate action requires several elements: a body of experience upon which to draw, the ability to conduct mental experiments, the ability to evaluate and critique the outcomes, the ability to revise one's definition of the situation if not satisfied and a highly developed sense of purpose.

This definition focuses on the importance of being able to learn from experience by deliberation about and critical examination of one's actions and their consequences. This implies that expertise as deliberate action develops in an ongoing process throughout a professional career. The expertise develops during the practice phase, after all the qualifications necessary for practice have been met.

Professional programs emphasizing expertise as deliberate action must therefore design learning to enable students to become participants and not only spectators and analysts. The situations must be multifaceted but possible to settle. The action is not purely analytic, but motivated by the need to define the problem and to find a solution. The teacher must be able to deliberate along with the student. Teachers must help students with their skills as well as their reasoning.

Kennedy describes the important intellectual task of deliberate action as problem-setting, and not problem-solving. Problem-solving consists of the weighing of alternatives to reach a pre-determined end and problem-setting consists of the simultaneous weighing of goals, means and ends.

Kennedy also notes that expertise as deliberate action acknowledges a

role for both normative and theoretical principles while assuming that ideas and goals are altered by the situations. Situation-dependent solutions make it very difficult for an outsider to evaluate a professional decision.

These four definitions of expertise are representative of the two basic strategies in professional education (Kennedy, 1987). The first assumes that the role of professional educators is to develop, codify and give to students as much knowledge as possible about every type of situation. The second assumes that professional educators must prepare students to think by giving them both reasoning skills and strategies for analyzing and interpreting new situations so that they will be able to deal with the great variety of situations they will encounter. Professional schools choose to emphasize one strategy over another. Teacher education has been so split between the two goals that no dominant view can be identified.

Importance of Practical Knowledge

Ronald Cervero, Freema Elbaz and Lee Shulman also provide some basic frameworks for the consideration of teacher knowledge and expertise as centred on practical knowledge. This concept of practical knowledge also describes teacher knowledge as a complex notion.

Ronald Cervero

Cervero's 1985 model of professionals as learners assumes that practice and reflection on the practice are central to professional learning. Based on findings from the field of cognitive psychology (i.e. schema theory), Schön's

model of professional practice and studies of expertise from various professions, including teaching, Cervero sees the professional as a learner who constructs an understanding of current situations of practice using a repertoire of practical knowledge that has been acquired primarily through experience in previous situations. His view is consistent with the critical viewpoint of conceiving of professionals and their practice. He also feels that universities must create more effective bridges to the actual experience of professional practice.

The learning model provided by schema theories implies that learning is an active process which involves much more than the transmission of information. Cervero feels that professionals must be able to test, evaluate and modify their existing schemata so that new information can be included in the existing knowledge structures. Thus, it is important to teach learners how to derive schemata that will be useful in their practice. The professional must learn "what questions to ask to construct useful schemata, how to test new schemata, and what their useful properties are (p.42)".

Cervero provides theories of expertise based on studies done in three professions, by different researchers, using different methods. All three studies draw conclusions regarding the nature and acquisition of expertise that are consistent with the critical viewpoint. In those studies related to teaching, Cervero found that there is a great base of research and theory about teacher knowledge. Cervero mentions several large-scale research efforts (Berliner,

1986, Shulman, 1986 and Sockett, 1987) and several major reviews of the literature (Eisner, 1985, Feiman-Nemser and Floden, 1986, Clark and Peterson, 1986).

Cervero finds that there is one strand of this literature that is consistent with the critical viewpoint. It has looked at teachers' practical knowledge, that is, those beliefs, insights, and habits that enable teachers to do their work in schools (Feiman-Nemser and Floden, 1986). Cervero specifies that this point of view rejects the notion that researchers have knowledge and teachers have experience. It places teachers' practical knowledge (which is gained through experience) at the very centre of professional practice. "In contrast to academic knowledge, teachers' practical knowledge is time-bound and situation-specific, personally compelling, and directed toward action" (p.52).

Freema Elbaz

Elbaz (1983) sees teacher knowledge as being in a constant, dynamic relationship with practice. She believes that teacher knowledge both shapes practice and stems from it.

She has created a framework to help understand this knowledge. It includes rules of practice, principles of practice and images. This framework provides a way to think about teacher knowledge, teacher experience and how problems are handled.

Rules of practice are brief, clear statements describing what needs to be

done in practical situations that are common. A rule of practice is implemented by the teacher when she recognizes a situation and remembers the rule.

Practical principles are more general than rules of practice and are used in uncertain situations. A principle is generated, requiring a teacher to reflect in action in order to turn the principle into effective action.

Images capture the teacher's knowledge at the most general level. They tend to orient the overall conduct without really directing specific actions. These images are personally held mental images or pictures of what a good teacher is. Teachers can express these images through brief metaphoric statements. In the case of the major participant in her study, for example, the metaphor she chooses to help express her understanding of teaching is that of a window which, among other things, reminds her of her duty to cast the light of knowledge upon that which her students do not understand.

Elbaz argues that teachers do not have any specialized methods to develop practical knowledge. She feels that they can not gain it through courses but must use their skills of comparison, observation, trial and error and reflection in practice situations. This view agrees with Schön's in that when professionals learn the artistry of professional practice, they learn new ways of using competencies they already possess, such as experimentation and imitation.

Lee Shulman

Shulman regards teacher knowledge as a complex concept. He has designed a theoretical framework to help understand the complex nature of teacher knowledge. This framework includes case knowledge.

Shulman advocates the use of the case method in order to illuminate both the practical and the theoretical. Case knowledge is knowledge of specific, well-documented and richly described events which are more memorable than the two other forms of knowledge he proposes: propositional and strategic knowledge.

Since teacher understanding and the transmission of content knowledge are central to teaching, Shulman's (1986) new perspective on teacher knowledge identifies three categories of content knowledge: subject matter content knowledge, pedagogical content knowledge, and curricular knowledge.

Content knowledge involves the amount and organization of that knowledge in the mind of the teacher. The ways of discussing the content structure of knowledge differ for each subject matter area and they involve going beyond the knowledge of the facts or concepts of a domain.

Shulman adds that teachers must not only be able to define the accepted truths in a field of expertise, but they must also be able to explain why a particular claim is considered valid, why it is worth knowing and how it relates, in both theory and practice, to the field in general. This aspect completes Schwab's (1978) definition of the two structures of a subject: the substantive

and the syntactic structures. The substantive structures are the variety of ways in which the basic concepts and principles of the discipline are organized to incorporate its facts. The syntactic structure is the set of ways in which truth or lies and validity or invalidity are established. When two claims compete with one another, the syntax of a discipline provides the rules for determining which claim is more valid.

A second kind of content knowledge is pedagogical content knowledge. This goes beyond content knowledge to include subject matter knowledge for teaching. Pedagogical content knowledge includes the most powerful examples, analogies, explanations and demonstrations that allow a teacher to express the subject in ways that makes it comprehensible to others. It also includes the understanding of what facilitates or complicates learning.

It is only since Shulman's article about pedagogical content knowledge that teacher educators have come to appreciate that the teaching of difficult subjects requires more than knowledge of content and knowledge of generic teaching methods. According to Kleinfeld (1992), the very nature of expertise in teaching consists of knowing how to teach specific content. Pedagogical content knowledge refers to knowing what about this content is important to teach, what difficulties and misunderstandings students are likely to have, what specific curriculum materials might be useful, and how this particular content can be well presented.

The third category of content knowledge is curricular knowledge. The

curriculum is made up of a wide range of programs designed for the teaching of particular subjects, a variety of instructional materials available in relation to the program and the characteristics that help one select one curriculum or set of program materials over others. Shulman feels that these last two categories of content knowledge, pedagogical and curricular, are rarely if ever taught in teacher education programs.

Following his consideration of the three types of content knowledge as representative of the body of knowledge necessary in the understanding of teacher knowledge, Shulman outlines three forms of teacher knowledge. He has thus classified the domains and categories of teacher knowledge within one framework and the forms of teacher knowledge in another. These are the forms in which the general domains or particular categories of knowledge (i.e. content, pedagogical and curricular) can be organized.

The first form of teacher knowledge is propositional knowledge. This type of knowledge is made up of simple statements that have been generated based on the wisdom of practice. These propositions are often experience-based and organized in conceptual frameworks so that they can be recalled more easily. He outlines three types of propositions: principles (based on empirical research, a theoretical claim), maxims (based on wisdom of practice, a practical claim) and norms (based on norms, values of justice).

The second form of knowledge is case knowledge. Shulman feels that case knowledge is a necessary complement to knowledge of propositions

because a case literature can illuminate both the practical and the theoretical and make propositional knowledge much easier to remember. Shulman (1986) defines case knowledge as "knowledge of specific, well-documented and richly described events. Whereas cases themselves are reports of events..., the knowledge they represent is what makes them cases."

Shulman proposes three types of cases that run parallel to his three forms of propositional knowledge. They are: prototypes (which exemplify theoretical principles), precedents (which communicate principles of practice) and parables (which convey norms or values).

The third form of knowledge is strategic knowledge. Strategic knowledge comes into the picture when a teacher must deal with a situation where principles collide and no simple solution is possible. This type of knowledge is developed when principles or the precedents of particular cases contradict one another.

Shulman (1983) envisions the case method as a means to develop strategic understanding and extend "capacities toward professional judgment and decision-making". As he writes,

When strategic understanding is brought to bear in the examination of rules and cases, professional judgment, the hallmark of any learned profession, is called into play. What distinguishes mere craft from profession is the indeterminacy of rules when applied to particular cases. A professional is not only capable of practising and understanding his/her craft, but of communicating the reasons for professional decisions and actions to others.

Shulman believes that teaching is a form of transformation, in which

teachers create representations of complex ideas that connect with the constructions of their students. Case methods are a particular strategy of pedagogical transformation - a strategy for transforming more propositional forms of knowledge into narratives that motivate and educate.

Professional Expertise and the Case Method

In their writings on teacher expertise and knowledge, all of these authors make direct references to different kinds of expertise to which the case method can be tailored as a teaching tool. In another chapter, I will explore in more detail some of these proposed uses of the case method as a tool to develop teacher expertise and suggest some variations thereof based on my understanding of professional expertise and the case method.

Wales, Nardi and Stager (1991) describe a process of five decision-making operations as a tool to teach thinking. They designed this process based on Dewey's and Schön's proposals. Thinking is a central element that is essential to the development of expertise. The five stages outlined by these authors cover the areas that must be considered in order to make decisions based on the concept of expertise as it is understood by both Dewey and Schön. It is interesting to note that these five stages are very similar to those used in standard case analyses which will be looked at in detail in another chapter.

These are the decision-making operations they propose. First, you must define the who, what, when, where, why and how of the situation; you identify

the problem and state the goal; you generate strategy ideas; you prepare a detailed plan for the strategy selected; finally, you take action and evaluate the results.

Schön's concept of the reflective practicum was discussed earlier on. Harris' (1993) proposal is similar to that outlined by Kennedy, also discussed earlier on. Harris summarizes the importance of cases very clearly. She proposes the use of cases in analyzing complex problems and dilemmas in practice. She considers the use of cases as an essential form for codification of professional practice (articulating the understandings, assumptions, principles and strategies of skilled practice). The body of cases would include descriptions of practice (the cases), accompanied by the formulation of principles of and for practice (the codified case analyses) and would thereby provide two important forms of discourse for codifying skilled practice: descriptions and principles.

Cervero's and Elbaz' focus on practice and reflection on practice can also be well adapted to the case method. Finally, Shulman (1992) clearly calls for the development of a case literature in order to represent a far wider and more diverse range of teaching contexts than can be experienced within any one teacher education program, and to provide teachers with a rich body of ideas from which to reason. Cases would serve to develop strategic understanding and to extend capacities toward professional judgment and decision-making. Other authors have also called for the development of a case literature in

teacher education and many of these approaches mesh with the understanding of teacher knowledge and expertise as I have outlined it.

Teacher expertise, as it is defined by the authors reviewed and in particular by Kennedy and Shulman, requires artistry. Teaching is an art which provides an expert teacher with the ability to deal with a number of complex thoughts and actions which must be performed instantly. An expert teacher is intuitive, creative and able to improvise.

Before looking into the case method and how it is suited to developing expertise and artistry in novice and experienced teachers, I will explore the basic principles of adult learning. If the case method is to be a useful tool in developing expertise, it must also be a useful tool when educating teachers who are also adult learners with very special pedagogical needs.

CHAPTER THREE

Adult Education Perspective on Teacher Development

In the previous chapter, I have looked at the nature of teacher expertise and how teachers acquire it. This is important in order to understand the potential contribution of the case method to the development of teacher expertise. The case method may be well-suited to help teachers gain expertise, but there is another important aspect that must be considered when looking at teachers and the case method.

In order to become professional teachers and develop expertise, teachers must first play the role of learners. In effect, they are adult learners with very special needs. Although the case method appears to be a useful tool in teaching expertise and artistry, it must also meet the needs of the teacher as an adult learner.

Considering teachers to be adult learners of a special sort will make their education more meaningful and practical. Rubin (1971) describes the relationship between adult education and in-service education of teachers. Both are directed towards adults whose formal education has been completed. In-service education is a particularized instance of the general concept of adult education.

The Canadian Association for Adult Education (1982) has called for greater attention to be paid to the development of teaching methods more appropriate to mature students. In addition, in-service teacher education has become increasingly important because of a belief that educational practice needs must be more closely linked to national needs. Also, teachers need

continuing education to keep ahead of changes in modern society. The growing concern about the quality of teaching and the feeling that education has failed have also contributed to the growing interest in in-service teacher education (Corrigan, 1979).

Rubin (1971) also considers the importance of in-service education as it relates to pre-service teachers who learn very much from those teachers already in the system. I will look at the importance of colleagues in the development of teacher knowledge and expertise later on in this chapter.

The teacher, in her daily working life, will always be experiencing problems. These problems are not necessarily serious, but nevertheless place the teacher in a condition of need. These problems require expertise from both the experienced teacher and the novice teacher observing her more experienced colleagues. Teaching as a true profession involves continuous learning and constant upgrading of skills. These problems need to be remedied through some kind of in-service program, of which the case method should be an integral part because of its many qualities and benefits to adult learners.

Adult Education and its Link to Teacher Development

It is important to consider teachers as adult learners first. Although they will require separate considerations as trained teachers and as individuals, one must not lose sight of the classic theories of adult education. Much of the knowledge about adult learners has been applied to adult learners in specific areas, such as teaching.

I will first consider some of the more general knowledge about adult learners. Adults must go through a different series of psychological and physical developments. In addition, they have different motives, experiences and learning needs which must be taken into consideration in order to create an effective learning environment. However, not all of these aspects are relevant when considering the usefulness of the case method in teacher education. Because the case method is such a highly personalized method, it allows the teacher to incorporate his own motives and experiences.

Learning conditions are very important to consider when selecting teaching strategies. Smith (1933) underlines the conditions which encourage learning in adults. First, adults feel the need to learn and to have input into why and how they will learn. Also, the content and processes of learning have a perceived and meaningful relationship to past experience, and experience is an important resource for learning. He also feels that what is to be learned should relate optimally to the individual's developmental changes and life tasks and that the amount of autonomy exercised by the learner be congruent with that required by the method used. Adults learn best in a climate that minimises anxiety and encourages freedom to experiment and when their learning styles are taken into account.

Doll (1983) also lists a series of guidelines for adult learning and staff development. He suggests that learning is aided by the adult's increasing control over both the content and the method of the learning, the concentration

on tasks directly related to the adult learner's work, the emphasis on individual differences by posing choices and alternatives, the practice of newly acquired skills and other learning in both actual and simulated settings and the arrangement for the adult learners to profit from both one-to-one relationships and group learning and the employment of both self-learning and learning from peers.

Main (1985) summarizes all of these conditions in the following manner: those who are learning through any form of staff development programme will benefit if the programme takes into account their experience, needs and learning styles; if it is designed to foster suitable methods of learning; and if it recognizes how the learners feel about the situation they are in. It is important to note that the ideal conditions outlined by these two authors and summarized and simplified by Main are conditions that are encouraged and exist quite naturally in a well-developed and controlled case study session. The specific qualities of the case method will be considered in another chapter.

Knowles (1973) sets up principles of teaching which match certain necessary conditions of learning. Two of these seven conditions of learning are particularly relevant to the effective use of the case study method with adults. First, the learners participate actively in the learning process. The teacher helps the students to organize themselves to share responsibility in the process of mutual inquiry. Also, the learning process is related to and makes use of the experience of the learners: the teacher helps the students exploit their own

experiences as resources for learning through the use of such techniques as discussion, role playing, case method...etc; the teacher helps the students to apply new learning to their experience, and thus to make the learning more meaningful and integrated.

Another interesting aspect in adult education is the importance of critical thinking. Brookfield (1987) looks at critical thinking carefully in his study of adult learning because he considers it useful for all adults. It is central to the notion of adults learning more complex and challenging material. The process of critical thinking involves four different phases: first, the trigger event (something causes an "inner discomfort and perplexity"), then, the exploration (seeking ways to reduce the discomfort), followed by the development of alternative perspectives (new knowledge and skills), and finally the integration phase (including these new ways of thinking into daily life.) It is interesting to note that this process of critical thinking resembles the phases involved in studying, discussing and solving a case.

Brookfield also considers several techniques in adult education that develop critical thinking including brainstorming, speculating on alternative futures, developing preferred scenarios (detailed description of ideal, preferred state), futures invention (developing desired futures yourself rather than waiting for someone else to create them), and immersing oneself into an artistic experience such as art or poetry. An effective case study method involves some of these techniques and would therefore be beneficial in developing critical

thinkers. For instance, the phases of the case study method involve some brainstorming and some scenario descriptions of both the actual and ideal state. The specific steps of a case study will be discussed in detail in a later chapter.

Dunn (1978) suggests that understanding individual learning styles is another important aspect of adult learning. It allows teachers to reach each student on an individual level. She considers environmental, emotional, sociological, and physical aspects that differ in each student. Because the case study method is quite flexible and very much in the hands of the participant, it can accommodate these different types of learners.

In another chapter, I will look at the case method in more detail and demonstrate how it is flexible enough to meet all of the conditions outlined in the previous section. The conditions which facilitate learning in adults are very important when selecting teaching and learning strategies. The next section will consider those additional conditions which facilitate adult learning that are particularly important to teachers.

Teachers as learners

There are many reasons to suppose that when they are learning, teachers have the same needs as all other types of students. They have the same range of attitudes, motivations and cognitive skills as most adults. However, some authors have chosen to address some of the problems specific to in-service teacher education. Their perspective on teacher development comes from adult education.

All of the implications of recent theories of adult learning and development for in-service teacher education have not yet been fully explored. However, Corrigan (1979) offers some interesting suggestions: adult education theories have a very strong personal growth orientation with an emphasis on experiential learning, reflection and group discussion. Adult development theories stress the significance of age, position in the life cycle and stage of cognitive development. The general assumption is that adult development is a personal occurrence which takes a considerable amount of time.

The focus on personal growth and experiential learning is one that is extremely well developed in the case method. The case method represents in a narrative form relevant problems from someone's experience. This narration is then considered in a personal way, through the eyes, backgrounds, experiences and minds of many teachers who contribute differently to its understanding and solution. In addition, the case method requires both reflection and group discussion, the two other important aspects of Corrigan's understanding of teacher development.

Corrigan concludes that it is important that any type of in-service education undertaken in a school be long-term and personalized, although it may be completed in the form of group activities that make allowances for individual differences. Main (1985) also emphasizes that the individuality of the teacher needs to be recognized and preserved in all development activities. Because of the discussion phase of the case method, it is in fact a highly

personalized learning strategy. A case is only as interesting as the participants make it, and this depends largely on their personal knowledge and experience.

Katz (1972) in Cervero (1988) goes into more detail about teacher growth and personal development by outlining four separate developmental stages which teachers pass through. These include survival, consolidation, renewal and maturity. Teachers vary in the amount of time they spend in each stage. Clearly, the position in the life cycle or developmental stage affects a teacher's understanding of students, colleagues and problems. Each position allows a teacher to be more aware of a separate set of concepts or ideals. For instance, a novice teacher may be particularly well aware of what it is like to be a teenager whose parents are divorcing because this may well be a recent personal experience. This awareness may make this person a better teacher. The case method allows this knowledge and understanding to be better understood and shared, in a memorable way, with other colleagues.

Doll (1983) (in Main 1985) sets out two pre-conditions which relate to the teachers involved. The first is that the feelings of the teacher matter. It is the teacher who must judge what he is doing and evaluate how he feels about what is being done. The second is that staff development must take full advantage of the teacher's strengths. Each of these conditions stems from the general principle that teachers learn in order to satisfy needs they identify. This humanistic generalization essentially focuses on the teacher and the help required in identifying the need and satisfying it. All of these concerns can be

met very competently by the case method.

Cervero (1988) also feels that teachers, like other professionals, do not always know what they know. Thus, it is important for them to understand the practical principles and images that guide their teaching. He feels it is important that an experientially based component be included in an in-service program which would allow the teachers (either through performance or discussion) to relate theories to their practical knowledge.

Some of the most important purposes of in-service education have been outlined by Johnston (1971). He argues that in-service education has a great number of them, including introducing teachers to new methods, and acquainting them with developments in psychology, sociology, organizational and administrative principles.

Various authors have set up certain conditions necessary for the success of an in-service activity. Donoghue (1981) believes that a successful in-service activity constitutes one which solves a particular problem in class or provides room for improvement in an area of learning. Reasons for the activity must be clearly defined. The activity must involve colleagues and engage their interest.

Harding and Sayer (1975) (in Main 1985) add that it is crucial for the implications of the training course to be made explicit to the learners. These implications relate in particular to relevant experience, role, responsibilities and aspirations. They also stress the importance of considering that

recommendations suitable for one teacher may not be suitable for another. Teachers' different objectives require different techniques.

Harris (1989) emphasizes the great importance of focusing on the trainee. Small group approaches to in-service training may be influenced by strategic consideration for the individual participant. The possibility for increased individual expression is important in small group organization. He recommends that groups be organized among common interests, needs or affiliations.

There are two basic approaches to in-service education. The basic approaches affect the types of learning and strategies that would be appropriate. Jackson (1971) contrasts the "growth" and the "defect" approach. The "growth" approach sees teachers as performing a complex activity that is much more of an art than a skill. Most of their knowledge is assumed to come from their own experience and not from other sources. The "growth" paradigm includes the following language: trying new options, gaining new perspectives, extending one's professional capabilities. The "defect" approach sees teachers as lacking skills and not knowledge. The solution lies in behaviorally oriented approaches in order to equip teachers with very specific skills. Given the artistry and complexity involved in teacher knowledge and expertise as it was described in the previous chapter, the solutions for teacher in-service training will come from the growth approach to in-service education. The detailed information about the adult as a learner and

the teacher as a learner also conforms to the "growth" approach in that it sets out conditions to increase complex teacher knowledge and expertise.

In conclusion, the many conditions set out by adult education theories as well as by learning theories aimed specifically at teachers can be met by a tool as flexible as the case method. Thus, the case method is not only a useful learning tool when developing complex teacher knowledge, but also a vehicle that is perfectly designed to reach an adult teacher in a learning role.

Teacher Professional Growth

In-service education must also understand what teachers need in order to become better teachers. More and more researchers have begun to draw upon adult development theories to aid in their study of teacher professional growth and to be able to understand the needs of teachers at different points in their careers. Various developmental theories include describing predictable sequences of growth, adaptation, transformation and change in adulthood. These common interests, needs or affiliations vary greatly depending on the problem being focused upon. For instance, Morant (1981) emphasizes that the needs of the teacher will be wide and numerous and will be derived from his/her age, personal education, professional education, sum of teaching experience, personality and temperament.

Morant (1981) classifies these needs into four main types: teachers' induction needs (when teachers embark on new or unfamiliar duties), extension needs (when teachers are ready to widen their professional field of knowledge),

refreshment needs (when teachers return to a school or the subject taught changes) and conversion needs (when teachers transfer to different jobs).

Knox (1977), operating from a psychological perspective, provides information about the internal and external elements which facilitate learning. He takes into account the changes in ability and intelligence throughout the life cycle. McCoy et al. (1978) and Gould (1978) also emphasize the importance of the adult life cycle.

Cross (1981) goes into more detail. Not only does she consider adult stages of development and the different phases of the life cycle, she also looks at the preferences of adult learners in both subject matter, teaching methods and scheduling methods.

Oja (1989) (in Holly 1989) summarizes the contributions of adult development theorists and researchers to our understanding of teacher development. She describes two primary ways to look at adult development in the education profession. One way focuses on age-related life issues and career concerns of teachers. The other way focuses on behaviours and feelings which have been classified in cognitive-developmental stages.

Life Age/Cycle theorists focus on predictable life events as elements for growth. Researchers in the study of ages of adult development have focused on routine life events as prompts for development. There are two groups of theorists taking this functional view of development. These include Gould (1978), Havighurst (1972) and Levinson et al. (1978) who focus mostly on age-

related tasks. On the other hand, Erikson (1959) and Neugarten (1963) focus on tasks related to the central issues of different phases of the life cycle. These researchers make the point that the negotiation of certain difficult tasks at particular life stages will affect the functioning of the adult. An awareness of the importance of these events as well as their effect upon the teacher is a valuable aid when working in the field of staff development.

Newman, Burden and Applegate (1980) have related these Life Age/Cycle theories to teacher career cycles. There are three career cycles - the first, lasting from about ages 20 to 40, is a time for finding one's place in the profession, a time when there are many changes in one's commitment to teaching. The second phase, from ages 40 to 55, is characterized by a strong commitment to teaching. Finally, the third phase is characterized by a reported loss of energy and enthusiasm.

Christensen, Burke, Fessler and Hagstrom (1983) feel that both the personal tasks and the organizational factors affect the different facets of a teacher's career. They have established the "Teacher Career Cycle Model" which uses the Life/Age Cycle principles of adult development and growth and combined them with an approach from social systems theory. It is a dynamic, flexible perspective to the career cycle rather than a static one based on age alone. The teacher's career cycle is viewed as influenced by and influencing both the teacher's personal environment as well as the organizational environment of the school.

Cognitive-Developmental Stage theorists focus on particular cognitive emotional perspectives distinctive to different stages of development. Loevinger (1976) defines stages of ego development which encompass aspects of cognitive ability, moral and ethical judgment, conceptual level and interpersonal behaviour within the larger category of ego stage. She outlines seven sequential stages and three transition stages. Each is more mature than the last and none can be skipped. However, different individuals may not develop beyond certain stages. The stages are the self-protective, conformist, self-aware, conscientious, individualistic, and autonomous.

Each of these adult development theories have helped researchers study and understand professional growth. The different approaches provide new ways of looking at teachers as adult learners and are important starting points when developing useful case studies and when considering how the case method is well suited to an in-service program designed for teachers. By knowing the teacher and evaluating at what stage he is in his career, a much more meaningful case study can be developed. It is up to the case writer to choose that teacher development theory that he finds most relevant and helpful. The cases can also be written to reflect the knowledge in a particular stage so that teachers can be made aware of these types of theories in a more memorable way.

The Importance of Colleagues

One aspect of teacher in-service education that is particularly important

and relevant to the use of the case method is the importance of colleagues. Teachers learn informally from colleagues all the time and the case method provides an in-service teaching tool that takes full advantage of this powerful resource.

Brookfield (1990) is one of the authors who considers the importance of teachers talking to each other. He feels that discussions about responses to different crises and dilemmas are very helpful. It is very important for the teachers to feel that they are not alone in feeling that things are out of control. He writes that one of the most effective staff development initiatives is to release teachers from their normal duties and encourage them to talk to each other about their most urgent problems.

Knapper (1985) considers the importance of learning not only from the teacher or the textbook, but from colleagues who can provide invaluable information and advice. He looks at the most ambitious approach to peer learning called the "syndicate method" in which a class is divided into syndicates (groups) of four to eight students. Assignments are carried out on a cooperative basis by the teams. The teacher acts as a facilitator or resource person.

Katz (1972) in Cervero (1988) feels that the most useful type of activity in continuing professional education for teachers involves consultation with senior staff members who know how to teach well. This helps provide teachers with the support they need to gain insight into the complex causes of student

behaviour.

Houle (1981) also considers the importance of collegueship in its facility of providing useful learning experiences. Houle suggests strategies to make the interaction among professionals easier: the encouragement of off-duty experiences, the opportunity of unstructured discussion sessions, the creation of journal clubs, discussion groups, special interest associations, retreats etc. and the reservation of special tables for interest groups at mealtimes. Consultation is also a common tool in helping professionals deal with particular cases. Houle (1981) discusses a few professions which use consultation in a purely educative fashion: for instance, when a social work case is presented and analyzed before a group of students and staff members.

Houle (1981) also warns of the negative influences that collegueship and consultation may have on continued learning. For example, a group of colleagues may refuse to accept a new idea that does not fit in with their accepted dogma or may deride colleagues who take part in learning activities.

The importance and influence of colleagues is a power that can be tapped by using the case method in an in-service program. It provides the ideal forum for discussion and encourages teachers to share their knowledge and experiences with other teachers who can learn from them.

Houle (1972) believes that the teacher should be a facilitator of learning. He has proposed a fundamental system of educational design which includes the assumption that education is a cooperative art. Clearly, the case method

is also a highly cooperative method. Its success depends entirely on the work that the group is able to do together in order to understand the problem at hand best and propose meaningful solutions. It is not simply the putting in place of pre-set operations which solve the specific problems they are intended to solve.

Another author who focuses on the importance of collaboration in adult learning is Brookfield (1986). He considers the ideal teaching-learning relationship as one that is a "transactional encounter in which learners and teachers are engaged in a continual process of negotiation of priorities, methods and evaluative criteria (p.20)". Teachers of adults are there to facilitate adult learning. They must aid the students in their effort to add new ideas, insights and experiences to their own frame of reference. Brookfield (1986) sees this process as being a collaborative one, one which allows the learners to explore further their own knowledge by considering carefully the new perspective offered by the teacher. He considers the discussion method as being an indispensable tool to facilitate adult learning. Learning is facilitated through the interaction with the teacher and with the other learners. The great knowledge and experience accumulated by all the learners is thus shared. The case method, as an organized type of discussion, will allow the learners to take full advantage of their rich experiences as well as share them with others.

In order for the case method to be an effective tool to develop teacher knowledge and expertise it must also be effective for adult learners. Teachers must first be considered adult learners. Various authors have provided greater

understanding of the adult learner. They have listed teaching methods that are useful to the adult learner and that help him develop critical thinking. Most of these writers specifically include the case method or set out conditions which the case method meets. I have also briefly reviewed different concepts of teacher professional growth derived from adult education. These assorted visions of the teacher career cycle provide the case writer with many ideas for the development of helpful and highly relevant cases. The case method has those characteristics necessary to make it a useful and relevant tool for the adult learner in an in-service program. In addition, it also has the qualities necessary to serve as a challenging and beneficial program to improve teacher knowledge and expertise. Although expertise is a very complex notion, the case method can be adapted to reflect those confusing incidents a teacher must deal with every day and provide a forum for self-reflection and discussion with colleagues.

CHAPTER FOUR

The Case Method

The case method has long been a cornerstone of professional education in medicine, business and law. Only recently have some educators considered its value in the preparation and continuing education of teachers (McCarthy, 1987, Shulman 1986, 1992). Can the case method be used to develop that professional way of thinking that is characteristic of expert teachers? It appears that the case method would be very useful in helping teachers learn to "think like a teacher". The case method, if based upon well-written cases and properly used, can focus teacher education on the complex world of actual teaching with its moral choices, puzzling problems and unpredictable human reactions and relationships.

The case method is also a highly useful tool for adult learners. It provides students with the opportunity to analyze problems and discover solutions based on their own experience and studies or those of the other students. It is a problem-solving model that can be applied in a highly personalized way.

Christensen from Harvard University, one of the best-known experts in the case method, emphasizes the fact that teaching is a very complex activity that requires considerable skill on the part of the instructor in his 1987 book about the use of the case method in teaching. He also considered the great difficulty teachers have in abstracting and articulating the skills and techniques they employ in their daily classroom practice.

He illustrates this dilemma with a story told of Anna Pavlova, the great

classical star of the Imperial Ballet. A young ballerina once asked her: "What was the meaning of your dance?" to which Pavlova replied: "Why, if I could tell you that, I would not have to have danced." Christensen concludes that artists are often inarticulate about both meaning and method. This, of course, means that the transfer of skills in teaching is difficult to do, as is the proper use and understanding of the case method.

Ashton (1991) predicts the capability of thoughtfully designed case methods to develop "teachers' ability to think analytically about the complex issues involved in pedagogical decision making." She proposes to use the case method as it is understood and defined by L. Shulman, J. Shulman and Merseth. Ashton warns that the current interest in case methods may result in cases that are not very well designed and only useful as anecdotes used for class discussion in which students express differing opinions based on unexamined beliefs that are not grounded in theory. Ashton believes that the case method must be integrated into the teacher education curriculum in order to enrich teachers' theoretical understanding of teaching and enhance their ability to make professional judgments.

Cases offer the opportunity to deal with a controllable piece of reality that is more meaningful, interesting and memorable than a set of principles drawn from theoretical research. It is also easier to manage a case than to work in a real classroom when dealing with issues such as classroom management, subject matter selection, methodology or multiculturalism.

Through cases, new and experienced teachers can learn to apply their theoretical knowledge to practice within school settings.

Thomas Clough (in Christensen, 1987) observed that the case method is best applied in certain circumstances:

Where truth is relative, where reality is probabilistic, and where structural relationships are contingent, teaching and learning are most effectively accomplished through discussion rather than explanation. With intrinsically complex phenomena and the limited usefulness of simple theoretical relationships, little of value can be communicated directly from teacher to student. The learning process must emphasize the development of understanding, judgment, and even intuition (p.6).

This definition reflects the artistry and intuition involved in teaching. The reality of the classroom is an unpredictable and changing one.

Lee Shulman (1986) is an important contributor to the use of cases in education. He argues that case knowledge is essential to the knowledge base of teaching. Case knowledge represents a potentially codifiable body of knowledge which conveys the wisdom of practice. Since his 1986 call for the development of a case literature to be used in teacher education to develop teachers' professional judgment, teacher educators have become increasingly interested in the case method.

Knapper (1985) also feels that the case method is important and that this method should be used as a major learning activity in his summary of important teaching methods and active learning. The case method is a complex tool that, if properly used, promotes active learning of theoretical and practical concepts.

Scholars have developed various approaches to the development of a case literature, and different pedagogical uses are being experimented with as well. Many creative strategies have been designed to demonstrate how the case method can contribute to the integration of theory and practice.

Definition of a Case Study

The first element in the definition of the case study involves the understanding of the complex problem and its resolution. Schnelle (1967) considers this complex problem, which he defines as a problem which is not precisely stated as the appropriate subject matter of any case. He says that this type of problem is not clearly identified and involves an almost infinite number of facts. He considers the case method as a problem-solving model which can be applied to all types of complex problems and will always provide the learner with the ability to find the best possible solution.

Jain (1975) adds to this definition by defining a case as "a narrative description of a real-life situation, incident or event involving one or more decisions. The case presents all the relevant background information leading up to the decisions and may or may not include the actual decisions or consequences of the decisions (p. 17)." The important addition here is the narrative aspect which gives a clear idea as to how the problem is presented to the learner.

Christensen's (1987) more detailed understanding of the complexity of a case situation and the importance of the instructor's artistry provide an

indication of the potential use of the case method to help teachers gain the artistry necessary to deal with complex in-class situations.

Christensen (1987) outlines five fundamental pedagogical principles which are crucial to the success of the case method: the primacy of situational analysis, the imperative of relating analysis and action, the necessity of student involvement, the non-traditional instructor role and an administrative point of view (i.e. the ability to apply the abstract knowledge grounded in theory). Each of these principles is essential to the successful application of the case method.

Three propositions further serve to define Christensen's view of a case seminar's philosophy, organization and operations. They are the following:

1. A critical responsibility of the instructor is the leadership of the case discussion process. It is not enough to be in command of the substantive knowledge of the field or the specifics of the case problem. The instructor must also be able to lead the process by which individual students and the overall group explore the complexity of a specific case situation.

2. The key to effective discussion leadership is the instructor's artistry, which consists primarily of mastering detail. The effective instructor, for example, expands the entire section's opportunities for learning by asking the appropriate questions of a specific student at the best time during the discussion.

3. The pertinent details (skills and techniques) can be observed, abstracted and taught. Case discussion leaders can be helped to learn their

craft. (p.19)

Pitsiladis (1967) writes that the objective of the case study method is to help develop independent thinking, judgment, knowledge and attitudes. These are important elements that are included in the basic understanding and definition of teacher expertise. Teachers must develop these qualities in order to be able to teach effectively. As was mentioned by Christensen, the complexity of a case situation and the importance of the instructor's artistry require challenging skills of the type outlined by Pitsiladis.

Hixon Cavanaugh (1993) also agrees with Christensen when he writes that the case method (along with other methods) allows for greater instructional control than is possible in experiential learning environments. In addition, he emphasizes the fact that the case method provides lifelike problems for students to solve in order to help students develop professional problem-solving ability.

Each of the above definitions of the case study focuses on the fact that it is a useful tool in the resolution of complex and unpredictable problems that require skill and artistry.

General Purposes

Cases are used for a great variety of purposes. For instance, the case method is used to teach concepts of a theoretical nature, morals or ethics, models for practice and images of the ideal. Each case has its own educational purposes, and can be as intricate as the author chooses to make it. In addition,

cases also serve to reach that complex goal of helping develop professional expertise, of learning to think like a teacher.

Case method teaching also provides models of how to think professionally about problems. Theoretical concepts, translated into cases, serve as illustrations of particular problems. By helping teachers think about concrete experiences, they are better able to learn from their own experiences.

Cases also provide stimulation for a teacher's reflection on her own teaching as well as for discussion with other colleagues. Research in adult education and educational improvement shows that reflection and conversation among teachers are essential to the improvement of schools and teachers. (Little, 1987, Katz, 1972 (in Cervero, 1988 and Houle, 1981). The method provides a sophisticated and organized alternative to the informal talks teachers often have in the staffroom (Morant, 1981).

The case method provides the teacher with the opportunity to be more reflective. Schön's concept of the reflective practitioner has inspired many educators. It provides teachers with a desirable model of the teacher being able to reflect-in-action and reflect-about-action. These skills are central to the art of dealing with situations of uncertainty. Cases can be integrated very successfully into this philosophy of teacher education.

If professionals are viewed as dealing with complex problems of practice by using reflection-in-action to organize their knowledge, then it would be desirable to provide more experience with problems of practice during the early

stages of professional education in the form of some kind of reflective practicum. Harris (1993) suggests that this view implies the development and use of cases and problems for the analysis of increasingly complex situations, in particular in the early stages of professional education, before students actually have extensive experience with actual cases.

Cases have other purposes that are useful to teacher education. They motivate both the teacher and the learner. They are interesting to read and to prepare. Their analysis varies depending on the participants and they are analyzed from a fresh perspective every time. Cases also help students to avoid overgeneralization due to the learning of principles or the study of prior cases. They learn that every situation is different and must be considered separately from the others. Although theory, practice and experience must be drawn upon to solve problems, each problem must still be solved independently. Cases also act as important catalysts in the discussion phase in the classroom or staffroom.

L. Shulman (1992) stipulates that a case has a narrative and that these teaching narratives have certain shared characteristics: they have a plot, they are specific and particular, they take place in a frame of time and place, they reveal the working of "human hands, minds, motives, conceptions, needs, misconceptions, frustrations, jealousies, faults" and they reflect the social and cultural contexts within which the events occur. These dynamics also affect the events experienced every day by teachers in classrooms.

The growing interest in cases stems from the increasing appreciation of "narrative" forms of thinking as opposed to abstraction and generalization (Bruner, 1986). Narrative, according to Bruner's definition, "deals with the vicissitudes of human intentions" (p.16). Narrative discourse also "recruits the reader's imagination" (p.25). Bruner wishes to elevate narrative to the position of a mode of thought at the same level as the empirical mode of science. Thus, he wants to treat the analytic thinking of science and the narrative thinking of the humanities as equal in terms of value and validity. Narrative forms of thinking are clearly more compatible with how teachers organize their experiences in order to develop professional knowledge.

Further Approaches to the Development of a Case Literature in Teacher Education

Each of the following approaches serves to illustrate the capacity of a well-designed case to develop a teacher's ability to think about complex issues that are a daily part of pedagogical decision-making.

J. Shulman (1991) has described an intensive collaborative approach to the development of teacher-written cases that provides teachers with the skills to reconstruct their experiences and share the wisdom they have gained from their practice.

Kagan and Tippins (1991) have used case writing to compare the pedagogical beliefs of preservice and in-service teachers. They have found important differences in the thinking of novice and experienced teachers and

have demonstrated the great potential of case writing as a way to elucidate teachers' beliefs.

Wineburg (1991) has described an experiential approach to cases in which he engages his class in a detailed case analysis of a class incident. This type of activity prepares students for the analysis they will have to do on a daily basis when they are teaching. This approach to the case method helps students learn to think and act like teachers before they are actually in the classroom.

Merseth (1991) has reviewed the development of the case method at Harvard's business school. She concluded that the experience offers important lessons to those who are interested in the development of a case literature in teacher education: cases must have very clear purposes and financial, collegial and administrative support is crucial for the success of the program. She also emphasizes the importance of choosing the program's conceptual orientation in order to determine the order and the purposes of the cases.

Merseth (1991) has outlined three common purposes representing different conceptual orientations for the case method. One focuses on the use of the case method when learning about the complexity of practice. In this instance, the purpose of the case is to educate the students in skills of analysis, decision-making and problem-solving (as defined by Merseth). The second purpose involves the use of cases as specific examples of established theories or of the most common experiences faced by teachers (as defined by

Greenwood and Parkay, 1989). The third purpose focuses on cases written for personal study and self-reflection (as defined by Kleinfeld, 1990).

Merseeth believes that all three of these orientations can enrich teacher education programs, as long as both the conceptual orientation and the underlying philosophy of the teacher education program are clearly defined and matched to the appropriate case method. This match is made with both the case itself and its use.

Richert (1992) also believes that the sharing of teacher-written cases is very important because it demonstrates that teachers have very much knowledge that is legitimate and must be valued. Only by creating a written record of this knowledge can this knowledge be transmitted to others. The importance of developing a teacher casebook and the benefits to teachers to write and learn from cases will be considered in more detail in this chapter.

The Case Method as a Teaching Tool to develop Teacher Expertise

Schön, Harris and Shulman, in their writings on teacher expertise and knowledge, make direct references to concepts to which the case method can be tailored as a teaching tool. I would like to explore these proposed uses of the case method as a tool to develop teacher expertise and suggest some variations thereof based on my understanding of professional expertise and the case method.

Schön proposes the concept of the "reflective practicum" as an institutional form and forum for reflective practice. It provides opportunities for

practitioners - both novices and experts - to reflect together on practice, using examples of practice in the form of cases or demonstrations.

The main features of the reflective practicum are the following: people learn by doing, by dealing with complex problems of practice, together in a virtual world representing, but not identical, to the world of practice; participants can try again and control the pace of their learning. Novices learn from experts, through reflection-in-action and reflection-about-action related to demonstrations of practice; in it, seasoned professionals may also learn with each other through reflection-about-action.

Harris (1993) also advocates the use of cases in analyzing complex problems and dilemmas in practice. She considers the use of cases as an essential form for codification of professional practice (articulating the understandings, assumptions, principles and strategies of skilled practice). The body of cases would include descriptions of practice (the cases), accompanied by the formulation of principles of and for practice (the codified case analyses) and would thereby provide two important forms of discourse for codifying skilled practice: descriptions and principles.

L. Shulman (1987) calls for the development of a case literature in order to represent a far wider and more diverse range of teaching contexts than can be experienced within any one teacher education program, and to provide teachers with a rich body of ideas from which to reason. Cases would serve to develop strategic understanding and to extend capacities toward professional

judgment and decision-making.

J. Shulman (1991) defines cases as more than just narratives, but as "teaching cases, stories of classroom life that represent recurring challenges for teachers" (p. 29). They serve to add reality and concreteness into the theory-laden teacher education courses. In addition, J. Shulman (1992) believes that authors are very much affected especially in collaborative settings where teachers and researchers can deliberate, ask questions, and brainstorm while creating and solving cases. The cases become tools that inform and educate new and experienced teachers. Thus, her understanding of cases covers two of the categories outlined by Merseth (1991). She also adds that case writing and case-based teaching help teachers find the time to reflect and think deeply about what they are doing which they don't always have the chance to do when dealing with the rapid, busy and confusing world of practice.

J. Shulman writes: "through disciplined, collaborative case writing, personal stories of teaching can foster individual reflection, provide opportunities for professional dialogue and conversation, and enlighten future generations of teachers" (1991, pp.30-31). For this self-reflection to be valuable, it is important that the conceptual orientation and philosophy of the teacher education program be defined in order to select the cases appropriately.

The importance of colleagues in the acquisition of expertise is also recognized by proponents of the case method. Teaching cases allow colleagues to gain expertise from one another in several ways.

Morant (1981) claims that one simple solution to common problems encountered by teachers every day is to have an informal talk with a colleague who has some knowledge of the area. The case method provides a highly sophisticated and organized alternative to this popular solution while still maintaining that connection to knowledgeable colleagues is the foundation to solving the problem. Pitsiladis (1967) also considers consultation and collaboration as essential to an effective case study.

Reynolds (1980) outlines how the case study method provides the learner with feedback about his decisions. In the open discussion phase, the learner gets a chance to compare his analysis with that of the other learners and of the discussion leader. This is particularly useful when those learners have some "real-world experience".

Hixon Cavanaugh (1993) believes that in professional education, much more learning takes place on a daily basis, through reading and discussion with colleagues, as well as by experience in everyday practice. She believes that the great challenge for continuing professional education is to make these forms of learning more effective because the issues and problems faced on a daily basis come up in different and unpredictable ways. Clearly, the case method is a tool that could address this problem very well and is included in the list of recommendations this author draws up to improve professional education.

Classroom Procedure

One central element in the successful use of cases is the procedure used

when using them. There are certain conditions that must be met in order for the case to be a useful tool when solving complex problems, such as those encountered by teachers in the classroom.

Pistiladis (1967) sets out a model made up of five phases. These are: the familiarization phase (making the preliminary study), the diagnostic phase (identifying and defining the main problems), the analytical phase (analyzing the main problems), the solution development phase (finding and evaluating alternative solutions) and the implementation-planning phase (developing a plan of action).

Reynolds (1980) outlines some useful techniques for leading case discussions. These include: requesting clarification, asking probing questions, rephrasing what the student said, interpreting and reporting illustrative experience, introducing concepts and techniques (i.e. lecture), providing evaluative feedback, writing on the chalkboard, choosing the next speaker, answering questions, summarizing, pausing.

Harris (1981) explains that the case discussion has been developed to provide for a more highly-structured discussion situation. A very carefully developed case is presented. It is an objective report of a real situation in which many aspects of a very complex problem are presented as information. There is usually a narrative description - the case not only stimulates discussion but contains relevant information to be used by the students. Since the case is not the actual problem of the participants, little time is needed for analysis.

Usually, a two-hour session is sufficient.

It is the responsibility of the case discussion leader to stimulate the participants and structure the discussion to some degree. It can be especially structured when it is used to illustrate a specific theory, concept or pattern of events. However, it is also important not to overstructure the discussion as it may cause the loss of spontaneity, an important factor in group discussions. In addition, a well-written case can cover a number of different concepts which may be considered in turn.

Christensen (1987) believes that the key to effective leadership in a case discussion is the artistry of the instructor; and that artistry consists in the mastering of detail. However, that mastering of detail can be observed, abstracted and taught. Case discussion leaders can be helped to learn and improve their craft.

If the above conditions are met, the case has the best chance of effectively preparing teachers for their own classroom experiences and also for further analyzing the experiences they have already had.

The Case-Writing Process

Another crucial element for the success of the case method is the quality of the case. There are some basic requirements that must be met when writing teaching cases so that they serve an educational purpose and are interesting and memorable narratives. The educational benefits can be derived from the learners working with the case as well as from the teachers who have written

the case.

J. Shulman (1992) considers one of the most important aspects of case-writing which is its quality because cases are much more than abstract educational problems that are presented in the form of a narrative. She writes:

Like good literature, good cases present universal issues and themes located in particular contexts. How to handle the dilemmas of a case depends not only on general considerations, such as research findings on tracking, but also on the particularities of the people and the situation, what these individual children and teachers are like. To bring these particularities to life requires good writing that captures the telling detail or the bit of dialogue that reveals character and attitude.

Reynolds (1980) outlines some basic conventions of case-writing. These include describing facts and opinions held by characters in the case in an effective prose style. In addition, cases are written in the past tense and the story goes back far enough in history to give the reader a better idea of the situation at hand. Often, a sense of urgency is conveyed at the end of the case.

He also prefers the field case to the armchair case. The field case involves the gathering of data and is a report of an actual situation experienced by a company (as Reynold's book refers specifically to management cases). He feels that cases based on "generalised experience" are not as effective because they are simply not as realistic. In addition, an armchair case may often be a real case which has been disguised in order to avoid release problems.

Carter (1993) describes her cases which are presented in three sections. The first provides a general description of the structures and processes in the teacher's class. The second describes the teacher's reaction pattern as she

carries out her work among the many facets of classroom life. The third is a metaphor which concludes the case and tries to capture the way the teacher deals with a particular problem.

Another important aspect of the case-writing process is the benefit that can be derived when teachers write their own cases. Richert (1993) believes that writing cases is an important learning tool for novice teachers. Writing cases allows the new teacher to develop skills essential to teaching better while reflecting on her experiences.

J. Shulman (1991) outlines the processes necessary to develop a casebook. These include how to motivate a group of teachers to spend time writing narratives describing teaching situations, how to edit their writing and develop solid notes. She has thus developed a set of guidelines on how to write cases.

Kagan and Tippins (1991) have analyzed teacher-written cases and found three common themes which included a sensitivity to the internal struggles provoked by a classroom problem (that is, the teacher's affective reactions, including frustrations and conflicts which is similar to what Helle (1991) called "connected knowing", a voice that reflects feeling and internal dialogue (p. 53 see p. 287), an explicit moral or ethical concern and a sense of history, a feeling that the teacher in a case had lived with a problem over time. These themes are helpful in the codification of teacher knowledge and expertise in the form of a casebook for teachers in that they reflect the common philosophical

struggles of gaining expertise.

Teaching Notes for Cases

Teaching notes are added to the detailed descriptions of the facts of the case in order to help case study leaders and participants deal with them in a more effective way. Teaching notes have been used differently by various authors. Shulman J. (1993) believes that commentaries are important for three reasons: they provide multiple perspectives on the same issue and they can link cases to research and they can suggest alternate strategies for action.

Case Studies for Teacher Problem Solving, by Silverman, Welty and Lyon (1992), consists of cases organized under sections such as classroom management, effective teaching, evaluation. It comes with an instructor's manual which contains a long teaching note for each case. Each note describes how to organize the discussion, suggests issues, questions and even a plan for the use of the board. This information is very valuable for teachers new to the case method.

In The Intern Teacher Casebook edited by J. Shulman and Colbert (1987), the cases written by a teacher-author are followed by at least two commentaries by educators representing different points of view (for instance, experienced and novice teachers, administrators, teacher educators and educational scholars). These commentaries are not meant to answer all of the questions raised in the text, but to enrich the analysis of each case by providing various interpretations from people with a different focus and agenda.

Kleinfeld (1992) proposes the following general kinds of questions to be added to the teaching notes for teaching cases. These questions have been selected from the instructor's guide to Teaching and the Case Method by Christensen, Hansen and Moore:

1. What are the central issues in this situation? Which are the most urgent?
2. What, if anything, should anyone do? Why?
3. How would you evaluate what the teacher did up to this point? What other options does the teacher have?
4. How do you think this situation appears to others in the case - the students, parents or principal?
5. How did the situation develop? What, if anything, might alter the basic conditions that created the present difficulties?
6. What, if anything, have you learned from the case? (p. 42)

These questions and notes are very important to consider if the case method is to be used correctly and as more than a story which is loosely discussed. In order to have pedagogic value, the case must be well-written and the discussion phase properly conducted.

Advantages and Disadvantages of the Case method

Various authors have carefully studied and tested those qualities of the case method that make it particularly useful as a learning and problem-solving tool. These advantages are meaningful when considering teachers as adult

learners and when considering the complex nature of teacher expertise. Reynolds, Schnelle, Kidd and Christensen consider the advantages of the case method as a general learning strategy. Merseth, Kleinfeld, and L. Shulman look at the case method as it is and should be used in teacher education.

Reynolds (1980) sets out the primary and general reasons which make the case study method such a successful learning tool. Students find the method more interesting and therefore spend more time and thought on the assigned project. They are better able to remember concepts because they have experienced them rather than read about them in a textbook. They are also better able to appraise situations and apply concepts. They find the group-work and interaction an effective preparation for the real world and learn how to develop new concepts.

Schnelle (1968) outlines several other advantages of the case method which are particularly relevant in cases used in areas other than business education such as in an in-service program for the continuing education of teachers. These are:

1. Students learn by exchange of ideas and teacher guidance some basic principles.
2. Students learn quickly, easily and naturally because the knowledge they have gained is then applied.
3. Student interest in learning is increased because they are so actively involved.

4. Students learn to cope with complex problems containing conflicting goals, personalities and theories.
5. Students learn to think independently but to work cooperatively.

Kidd (1973), whose focus is on adult learners, believes that the case method is particularly effective in fields where there are very few or no final answers, and where personal judgment is essential. He considers it a method that is very valuable for many adult groups.

Christenser (1987) writes that the case method helps students discover and develop their own framework for solving problems. In addition, the method is stimulating for the teacher. Each session provides the opportunity for risk-taking and new learning.

The following authors have considered the case method as it relates specifically to teacher education. Merseth (1991) says that the great virtue of the case method is "that it centres the preparation of teachers in just these kinds of teaching problems, the kinds of intellectually and morally engaging issues that teachers actually face in the classrooms" (p.246). The problems she refers to include the difficulty in representing a concept in ways that engage students' interests and passions and in grading different kinds of students fairly.

Kleinfeld (1990) lists even more strengths of the case method. She writes that well-written teaching cases provide vicarious experience with important teaching dilemmas and illuminate the human intentions, feelings and

misinterpretations that are often at the core of teaching problems. In addition to this, she writes that cases provide models of how expert teachers think about teaching problems and increase students' repertoires of educational strategies by showing them how expert teachers approach problems. This helps students learn to spot issues and think professionally about practical problems and provide preparation for an unjust world.

Kleinfeld (1992) also writes that cases increase teachers' abilities to identify the issue in a troubling situation and frame these problems in productive ways, understand the complexity of professional problems and how ethical, interpersonal and policy issues may be implicit in what appear to be routine classroom decisions, apply theoretical concepts and research findings to concrete situations and identify a number of strategies to handle a particular situation.

Kleinfeld (1991) concluded that case methods increased education students' abilities to spot issues in problematic situations, analyze educational dilemmas in sophisticated ways and identify possible alternatives for action. Case methods were equally successful with young, undergraduate students as with mature students with greater life experience.

L. Shulman (1992) goes so far as to say that the case method is a strategy that can overcome many of the most serious deficiencies in the education of teachers. He writes:

Because they are contextual, local and situated - as are all narratives - cases integrate what otherwise remains separated. Content and process, thought and feeling, teaching and learning are not addressed theoretically as distinct constructs. They occur simultaneously as they do in real life, posing problems, issues, and challenges for new teachers that their knowledge and experiences can be used to discern (p.28).

Case studies also have potential disadvantages which must be considered when tailoring them to be used to develop teacher knowledge. Schnelle and Kleinfeld summarize the most important of these potential difficulties with the case method while Kennedy takes a detailed look at the problems legal education has had with the case method.

The disadvantages suggested by Schnelle relevant for in-service education in areas other than business (i.e. education) include:

1. The importance of well-qualified participants who are highly motivated, mature in their social relationships and experienced in the area they are discussing.
2. The case method is more appropriate for certain subject areas, i.e. areas that have principles that are less rigid and leave more room for discussion and disagreement.
3. The case method drives for consensus which, according to Alan P. Trei (in Schnelle) leads students to lose initiative and overvalue group agreement.

Kleinfeld (1990) expresses some reservations about teaching cases which include the fact that they are not a systematic way of transmitting facts, organizing knowledge or teaching psychological concepts and pedagogical

methods. She believes that the case method supplements rather than replaces other methods of teacher preparation. Kleinfeld (1992) also believes that with very few exceptions teacher educators have not developed many cases which address the problem at the heart of teaching - how to teach difficult but important content to diverse students.

Clearly, the importance of some of these disadvantages can be reduced through careful planning. In the case of teacher in-service training, the first of Schnelle's disadvantages is not really not an issue. In addition to this, teacher expertise and problem-solving are definitely areas where there is much room for discussion.

Kennedy (1987) considers the problems the legal education system has had with the case method, the central method of instruction to develop expertise as a technical skill. She outlines five major problems with the case method in legal education. The first is the fact that it pays too little attention to codified knowledge. The case method is also criticized because it fails to assure that students acquire knowledge of the general principles and introduces ambiguities by emphasizing process over content. The most devastating criticism is that new young lawyers can analyze cases but are unable to make decisions and act on them. Also, some critics have claimed that being a lawyer requires much more than legal analysis. It requires the analysis of the personalities and organizations involved and an understanding of how legal decisions may affect them.

The problems Kennedy (1987) has summarized here are not all as relevant to the use of the case method in teacher education. For instance, teacher education does provide knowledge and training in codified knowledge and more attention is paid to general principles of education. Teacher education also provides much content but very little process, which is precisely what the use of the case method could provide. Teachers don't really learn to make decisions and act upon their decisions until they are in the sink-or-swim world of student teaching. When the case method is introduced into teacher education, it provides students with some more realistic and practical preparation before they find themselves in front of the students. The last criticism applies - student teachers could certainly use a better understanding of how the personalities and organizations within an educational system and a classroom affect their teaching.

Many of the potential problems with the case method can be avoided with careful planning. The cases must be very carefully appraised and written and then integrated into a complete educational program that includes other methods. The cases can be responsible for an important part, but still only a part, of the expertise required by teachers in front of a class. However, the case method is ideally suited to help develop those artistic aspects of expertise discussed in Chapter II because it can better deal with the complex nature of expertise than any other method.

The recent and surging interest in the case method as a valuable tool in

the preparation and continuing education of teachers is an important contribution to the development of teacher expertise. Its qualities make it an ideal method for the development of that professional way of thinking that is characteristic of expert teachers. The case method is valuable in helping teachers learn from their colleagues, from themselves and in learning to think like a teacher. With well-written narratives, challenging and well-developed questions and case discussion among experienced and inexperienced teachers, the case method can focus pre-service and in-service teacher education on the complex world of actual teaching with its moral choices, puzzling problems and unpredictable human reactions and relationships.

CHAPTER FIVE

Conclusion

Because of the inadequate preparation teachers receive in certain specific areas of expertise, I have demonstrated the need for and the usefulness of a new method of teacher preparation. The method I have selected is the case method, a well-respected teaching tool that has been adapted over the years to such areas as medicine, business and law but is underutilized in teacher education. It is clear that the usefulness of the case method depends largely on how it can reflect and promote the demanding elements that make up the nature of teacher expertise. In addition to this, the case method must also meet even more requirements to ensure that it is a useful tool for adult education. The case method can do the job.

Present teacher education programs have been widely criticized because of the great difficulty teachers have in applying what they learn in universities and in-service programs. Teachers are professionals and their education must reflect professional education. It is this professionalism that will allow teachers to deal well with the classroom's extremely complex and unpredictable environment.

The main assumption in this thesis has been that teaching is an art that consists of very complex thoughts and actions that must be performed immediately. The many events, thoughts and options which a teacher must study, interpret, select and understand are impossible to predict. In this thesis, the selected theory of the development of expertise is that professional knowledge consists in large part of the accumulation of experiences in the form

of concrete cases. Experienced professionals develop knowledge based on the problems they have encountered, what caused these problems and the approaches that may lead to a solution. I have reviewed various authors who have studied and defined teacher expertise. Although their definitions vary, the element of artistry is always included in the concept of teaching as is the examination of the complex nature of teacher-thinking and decision-making.

The authors I selected have each provided an important foundation or useful framework for understanding traditional and new views of teacher expertise. They all understand the depth of the concept of expertise and how many different kinds are required throughout teacher education, training, practice and continuing education.

John Dewey, Donald Schön and Mary Kennedy have insisted that in order to become experts, teachers must have both critical thinking and problem solving skills. Both of these sets of skills are very intricate, difficult to transmit but essential to the smooth functioning of a lesson. Developing teacher expertise thus relies on some very complex tasks that are not easily acquired and can constantly be improved. Kennedy has further enriched this concept by providing an in-depth look at expertise by covering its widest possible range of definitions.

The abilities to think critically and solve problems are not the only ones necessary for the teacher to develop expertise. As outlined by Cervero, Elbaz and Shulman, it is also very important for the teacher to develop practical

knowledge. Thus, practice and reflection on practice are central to learning and the development of expertise. The repertoire of practical knowledge has been acquired and enriched through experiences in previous situations.

This thesis has provided a detailed look at the complexity of the thinking process associated with the professional teacher. It has focused on the nature of teacher expertise as it relates to the artistry required of teachers and the complexity of teacher-thinking and decision-making. It is this complex understanding and artistic aspect of teacher expertise that best accounts for the gap that new teachers experience when they set foot in the classroom. These are the aspects of teacher expertise that teachers require and must be trained for.

But an understanding of teacher expertise is not sufficient when considering the potential benefits of the case method to increase it. The case method must also be an effective tool for adult learners. This thesis has demonstrated that teachers are a very special type of learner. Not only do teachers have the same needs as other types of adult learners, but teachers also have certain needs specific to them. However, I have demonstrated that these detailed studies of teacher professional growth originate from adult development theories. This detailed understanding of the teacher as a learner is essential for the development of useful teacher education and in-service education programs.

By providing a detailed look at the nature of teacher knowledge and

expertise as well as at the nature of the teacher as an adult learner, this thesis has set out the conditions for the learning environment within which the case method must excel as a learning tool. I have shown that the case method must be flexible enough to be both a meaningful tool to teach and transmit teacher expertise while also meeting the various and different conditions necessary to be effective for adult learners who just also happen to be teachers.

This thesis then studied the learning tool that meets the conditions necessary to improve expertise while keeping the adult learner motivated and interested: the case method. The case method is very useful in helping teachers learn to "think like a teacher" because it is able to focus teacher education on the complex world of actual teaching with its moral choices, puzzling problems and unpredictable human reactions and relationships. I looked at the qualities of the case method and showed how they made it ideal for the development of expertise.

Essentially, I have shown that each case can be designed with its own educational purposes which can be used to teach concepts of a theoretical nature, morals or ethics, models for practice and images of the ideal. In addition to this, case method teaching also provides models of how to think professionally about problems. Theoretical concepts, translated into cases, serve as illustrations of particular problems. By helping teachers think about concrete experiences, they are better able to learn from their own experiences. Cases also provide stimulation for a teacher's reflection on his own teaching as

well as for discussion with other colleagues.

In addition to the many qualities of the case method as a tool for continuing education, I have looked at the specific writings of Schön, Harris and L. Shulman related to those central concepts of expertise to which the case method can be directly applied. I have demonstrated the importance and usefulness of Schön's concept of the reflective practicum, Harris' understanding of the case method as central to the analysis of complex problems and dilemmas in practice and L. Shulman's call for the development of a case literature in order to represent a much wider and more diverse range of teaching contexts than can be experienced within any one teacher education program.

Further information that demonstrates the great potential of the case method comes from some other authors who have considered the case method as it relates specifically to teacher education. Merseth looks at the the case method's ability to focus on the moral and intellectual teaching problems that teachers confront on a daily basis. Kleinfeld highlights the ability of well-written cases to provide teachers with vicarious experience with important teaching dilemmas while providing models of how expert teachers think about teaching problems. L. Shulman goes so far as to say that the case method is a strategy that can overcome many of the most serious deficiencies in the education of teachers.

The case method appears to be a very useful learning tool that not only stimulates adult learners, but also helps teachers develop the ability to

understand the complexity of professional problems and to apply theoretical concepts and research findings to real situations because of its ability to identify a number of strategies to solve a particular problem. The potential contribution of the case method to teacher education is great - it provides an extremely efficient path to the development of teacher expertise that also meets the demands of the teacher in his role as learner during every stage of his career.

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