THE BELIEFS OF TEACHER EDUCATORS

by

Elizabeth N. Cooper

B.A., University of Saskatchewan, 1970
B. ED. University of Saskatchewan, Regina Campus, 1975
M. Ed., University of Regina, 1983

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
DOCTOR OF EDUCATION

in
THE FACULTY OF GRADUATE STUDIES
(Curriculum and Instruction)

We accept this thesis as conforming
to the required standard

THE UNIVERSITY OF BRITISH COLUMBIA

May 1990

* Elizabeth N. Cooper, 1990
In presenting this thesis in partial fulfilment of the requirements for an advanced degree at the University of British Columbia, I agree that the Library shall make it freely available for reference and study. I further agree that permission for extensive copying of this thesis for scholarly purposes may be granted by the head of my department or by his or her representatives. It is understood that copying or publication of this thesis for financial gain shall not be allowed without my written permission.

Department of Education, Curriculum and Instruction
The University of British Columbia
Vancouver, Canada

Date July 13, 1982
ABSTRACT

This was an exploratory, descriptive study, focussed on the concepts used by certain teacher educators to describe their work. Open-ended interviews were conducted with 25 teacher educators who worked with undergraduate student teachers in one Canadian university. Their descriptions of the knowledge and the practice which they believed important to the successful completion of their work were classified. Themes were identified and compared to themes derived from a review of literature about teacher education. Three broad categories of belief about the nature of, and the relationship between, the theory and the practice of teacher education were identified. Sub-categories of two of the three broad categories were also identified. The categories which emphasized the primacy of theory were called naive deduction, classical rationalism and technical rationalism. The categories which emphasized the primacy of practice were naive induction, personal practical knowledge and inquiry. The third category emphasized the necessary interaction of theory and practice. Two other broad categories of belief were identified. They described teacher educators who believed student teachers acquire knowledge and skill best if teacher educators teach theory directly (reductionism) and those who believed student teachers learned best when helped to interpret experience (wholism). These beliefs were interpreted as being sustaining beliefs, that is, beliefs which serve as general guides to teacher educators' work. Some of these sustaining beliefs reflect the school context of teacher education, others the university context. As a result, teacher educators face dilemmas of choice.

It was concluded that this research provided some avenues for further investigation which may help teacher educators to understand more clearly the difficulties experienced when programs are developed or changed.
ACKNOWLEDGEMENTS

I wish to express appreciation for the assistance of my supervisor and committee: Dr. LeRol Daniels, Dr. Gaalen Erickson, Dr. Peter Grimmett and Dr. James Gaskell. Their faith, teaching and support were wonderful. I wish to thank the University of British Columbia for financial support.

I am very grateful to Dr. Peter Hemingway and Ms. Sydney Matheson for friendship, scholarly criticism and help with the mysteries of word processing.

My colleagues in teacher education who agreed to participate in the study were generous in sharing their knowledge and belief. My colleagues in my present faculty appointment have served as teachers, mentors, friends and critics for more than 15 years. Special thanks are due to Dr. Art McBeath, Dr. Orrison Burgess and Dr. LeOra Cordis.

My colleagues and students in Aboriginal teacher education programs taught me to ask the questions which are the source of this search.

My family: Margaret, Jean, Bill, Terry, Marlene, Eva and Donna, their spouses and children have been patient and loving. My friends the Halls and Haggertys have sustained me. Dino was always there.

To the memory of Mr. A.S. Humphries, thanks for the beginning.
TABLE OF CONTENTS

Abstract .................................................................................................................. ii
Acknowledgements ............................................................................................... iii
Table of Contents ................................................................................................... iv

CHAPTER ONE - INTRODUCTION ........................................................................ 1

The Theory and Practice of Teacher Education .................................................... 5
Frameworks Used in Organizing this Study ......................................................... 7
  Social Construction ............................................................................................ 7
  Concepts and Conceptions ................................................................................ 9
  Beliefs .................................................................................................................. 9
The Purpose of the Study ....................................................................................... 10
Research Questions ............................................................................................... 12
Assumptions .......................................................................................................... 12
Conclusion .............................................................................................................. 13

CHAPTER TWO - REVIEW OF LITERATURE .................................................. 15

General Views of Theory and Practice ................................................................. 16
  Conceptions of the Roles and Relationship of Theory and Practice ................. 17
    The Primacy of Theory .................................................................................. 17
    The Primacy of Practice .............................................................................. 18
    Theory and Practice: An Ongoing Interaction ............................................. 18
  Two Views of Knowledge .................................................................................. 19
  The Two Views as Seen in Educational Literature .......................................... 19
  Solving Educational Problems ......................................................................... 20
  Summary ............................................................................................................. 22
Beliefs and Conceptions ....................................................................................... 22
Teacher Educators' Knowledge and Beliefs ......................................................... 24
  Knowledge ......................................................................................................... 24
  Belief ................................................................................................................... 26
Beliefs about, and Conceptions of, the Theory and Practice of Teacher Education found in Teacher Education Literature ................................................................. 28
  The Primacy of Theory .................................................................................. 29
    Naive deduction. ............................................................................................ 29
    Classical rationalism. .................................................................................... 31
    Technical rationalism. .................................................................................. 33
    Summary. ........................................................................................................ 36
  The Primacy of Practice .................................................................................. 36
    Naive induction. ............................................................................................ 37
    Personal practical knowledge. ...................................................................... 38
    Inquiry. ............................................................................................................ 40
    Summary. ........................................................................................................ 43
  Theory and Practice: An Ongoing Interaction ................................................. 44
The Work of Teacher Educators ........................................................................... 45
Conflicting Expectations ....................................................................................... 48
Conclusion .............................................................................................................. 53
<table>
<thead>
<tr>
<th>Chapter Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Methodological Framework of the Study</td>
<td>54</td>
</tr>
<tr>
<td>General Conclusion</td>
<td>57</td>
</tr>
<tr>
<td>CHAPTER THREE - METHOD</td>
<td>59</td>
</tr>
<tr>
<td>Setting of the Study</td>
<td>60</td>
</tr>
<tr>
<td>Who is a Teacher Educator?</td>
<td>61</td>
</tr>
<tr>
<td>Data Collection</td>
<td>62</td>
</tr>
<tr>
<td>Interpretation</td>
<td>65</td>
</tr>
<tr>
<td>Validity</td>
<td>68</td>
</tr>
<tr>
<td>Reliability</td>
<td>71</td>
</tr>
<tr>
<td>Conclusion</td>
<td>72</td>
</tr>
<tr>
<td>CHAPTER FOUR - RESULTS</td>
<td>74</td>
</tr>
<tr>
<td>What Teacher Educators Know: Student Teachers Grow or Develop</td>
<td>75</td>
</tr>
<tr>
<td>Conceptions of Growth and Development</td>
<td>76</td>
</tr>
<tr>
<td>Development as if it were Organic</td>
<td>76</td>
</tr>
<tr>
<td>Development as if it were a Revelation</td>
<td>78</td>
</tr>
<tr>
<td>Summary</td>
<td>81</td>
</tr>
<tr>
<td>Development as Progress through a Set of Necessary Steps</td>
<td>82</td>
</tr>
<tr>
<td>The Change That Takes Place in Student Teachers</td>
<td>84</td>
</tr>
<tr>
<td>Transformation</td>
<td>85</td>
</tr>
<tr>
<td>Control</td>
<td>85</td>
</tr>
<tr>
<td>Pragmatism</td>
<td>87</td>
</tr>
<tr>
<td>Summary</td>
<td>89</td>
</tr>
<tr>
<td>Methods of Teacher Education</td>
<td>90</td>
</tr>
<tr>
<td>Methodological Conceptions and Beliefs</td>
<td>92</td>
</tr>
<tr>
<td>Modelling</td>
<td>92</td>
</tr>
<tr>
<td>Modelling as demonstration</td>
<td>93</td>
</tr>
<tr>
<td>Modelling professional behaviours and attitudes</td>
<td>94</td>
</tr>
<tr>
<td>Modelling learning</td>
<td>95</td>
</tr>
<tr>
<td>Summary of conceptions of modelling</td>
<td>95</td>
</tr>
<tr>
<td>Reflection</td>
<td>96</td>
</tr>
<tr>
<td>Conceptions of reflection</td>
<td>96</td>
</tr>
<tr>
<td>Categories of Belief</td>
<td>99</td>
</tr>
<tr>
<td>Reductionism and Wholism</td>
<td>100</td>
</tr>
<tr>
<td>Summary</td>
<td>106</td>
</tr>
<tr>
<td>Blurring the Dichotomies: The Experience of Dilemma</td>
<td>107</td>
</tr>
<tr>
<td>The Ideal Teacher Educator</td>
<td>107</td>
</tr>
<tr>
<td>Common Beliefs</td>
<td>109</td>
</tr>
<tr>
<td>The Difficulty of Talking About Method</td>
<td>110</td>
</tr>
<tr>
<td>Conclusion</td>
<td>113</td>
</tr>
<tr>
<td>CHAPTER FIVE - DISCUSSION AND CONCLUSIONS</td>
<td>114</td>
</tr>
<tr>
<td>The Roles and Relationship of Theory and Practice</td>
<td>114</td>
</tr>
<tr>
<td>The Primacy of Theory</td>
<td>115</td>
</tr>
<tr>
<td>Naive Deduction</td>
<td>115</td>
</tr>
<tr>
<td>Classical Rationalism</td>
<td>116</td>
</tr>
<tr>
<td>Technical Rationalism</td>
<td>118</td>
</tr>
<tr>
<td>Primacy of Practice</td>
<td>119</td>
</tr>
<tr>
<td>Naive Induction</td>
<td>120</td>
</tr>
<tr>
<td>Personal Practical Knowledge</td>
<td>120</td>
</tr>
</tbody>
</table>
CHAPTER ONE - INTRODUCTION

When teacher educators discuss the work they do, their curricula, or the knowledge and practice student teachers should acquire, their language includes a wide variety of terms, used in an even wider variety of ways. Teacher educators make use of terms that have been developed to express the questions and conclusions of research on teaching, such as 'wait time' or 'classroom management'. They also use terms, like 'hidden curriculum' or 'empowerment', that may be traced to sociological sources. They use terms which might be called common sense descriptions of a variety of concepts such as 'discipline' or 'thinking.' Teacher educators also use terms borrowed from psychology, for example, 'reinforcement,' 'motivation,' and 'cognitive learning.'

From the viewpoint of the researcher, the psychologist or the sociologist, the language teacher educators use to talk about their profession appears imprecise. The meanings of terms, seen from these other perspectives, seem to shift. 'Reinforcement,' for example, acquires connotations of encouragement. 'Motivation' becomes something that can be externally as well as internally effected. These terms often have acquired some connotative value. Reinforcement is variously seen as a good idea or a term that expresses an excessively mechanistic view of human learning. The term motivation may be seen as either something that all good teachers should supply or as a technique associated with propaganda.

This language is used by a wide variety of persons including teachers, educational administrators, educational researchers, and teacher educators. Since each group, and various subgroups of each group, may give such terms meanings that are different, understanding exactly what is meant by a certain term becomes difficult. Peters (1967) explored the meaning of some of the most common of these terms--teaching, learning and education--but their meaning-in-use by teacher educators remains largely unexplored, as do the beliefs about teacher education that use of these words represents.
Any group of persons engaged in a common task will develop specific language for use in their work. This dynamic aspect of language often leads to what is perceived by persons outside the group as ambiguity or obfuscation. This phenomenon is often promoted by group members. It helps them to delineate group membership. Word choice, or the use of words in ways special to the group, expresses community of belief. Teacher educators' use of professional language shares these characteristics. White (1982) described the development of certain forms of professional identity in the study of education at the University of Chicago from 1909 to 1929. A reading of this history enables one to see how much of what is taken for granted in Faculties of Education today may have had its origin in the discussions and actions of men such as Charles Judd and Elwood Cubberly. Two viewpoints of the study of education are apparent in the events and discussions described by White. They are those of Dewey and those of Judd, more closely attuned to the then popular scientific management view. Two ways of talking about the work of teachers, administrators and of university faculty are apparent. What are the the dominant views today?

One means of answering such questions is to examine the language educators use and their beliefs about teacher educators' work. Teacher educators' use of terms denoting a variety of common concepts has not been carefully studied. The beliefs implicit in their use of such terms have not been well documented. The difficulties experienced when teacher educators try to change programs, documented by Lanier and Little (1986) and others, may be related to the use of key words to express differing conceptions. Evaluations of the implementation of school curriculum have demonstrated this possibility (Fullan, 1982). Teachers often use the language of a curriculum reform to describe their own practice when it is clear to evaluators that the curriculum-in-use in their classrooms is very different from that proclaimed. Systematic study of the way teacher educators talk about their work may lead to understanding the beliefs that guide their work. Those who educate teachers, study the education of teachers, develop the curricula of teacher
education, and study teacher educators' work should find such information helpful because it will provide information about the beliefs which may underlie discussions of the work and programs of teacher education. Information about the beliefs of teacher educators and about the language that they use, may suggest new avenues for study, new questions to ask. This information may provide the basis for study of teacher educators' espoused beliefs and the relationship of those beliefs to what has been called 'theory-in-use'. Have changes in teacher education foundered on the rocks of confusion in the personal, professional, or institutionally-mandated language and beliefs of teacher educators?

Crow (1987) supported the potential usefulness of studies of the beliefs and work of teacher educators. Crow suggested that many of the concerns teacher educators have about the apparent power of practical experiences to negate ideas or practices taught in university classrooms can be explained by exploring what she called the hidden curriculum of teacher education. Crow's (1987) study of the relationship between the espoused beliefs of teacher educators and the experiences of their student teachers is an indicator of the information that might be found in other studies of the language, beliefs and work of teacher educators.

A few other recent studies also indicate the potential usefulness of research on the language and belief of teacher educators. Carter (1984) described the views of twenty-eight American teacher educators about four roles that they believed they played in the course of their work. Weber (1986) described two purposes that six Canadian teacher educators said their work served and the tension between those purposes. These studies are further discussed in Chapter 3. These studies suggest that the beliefs of teacher educators are likely to form a fruitful area of inquiry.

Ball (1987) described the power of beliefs represented in metaphors teacher educators use to describe practica or other field experiences. Kleine and Smith (1987) assessed the implications for teacher education of the life histories of teacher educators. Giroux and McLaren (1988) criticized teacher educators for "define[ing] themselves as
service institutions" and thereby concerning themselves only with the provision of "technical and managerial expertise" (p. 161) required of teachers by state educational authorities. While each of these ways of attempting to understand and to explain the apparent nature of present day teacher education rests upon a different interpretive framework, all are concerned with the beliefs of teacher educators and the effect of those beliefs on the structure of teacher education and the work of teacher educators and teachers.

Educators, particularly teacher educators, is once again being carefully scrutinized and rigorously criticized by the societies they serve (Carnegie Task Force on Teaching as a Profession, 1986; Holmes Group Report, 1986; Fullan & Connolly, 1987). Attempts by teacher educators to demonstrate the relevance and usefulness of their programs to schools and to societies have seldom been convincing. It seems likely that teacher educators need to communicate more effectively with one another and with those whom they serve if they wish to demonstrate the usefulness of their work to society and to themselves. Teacher education has reached a point where clarification of beliefs and language may provide new approaches for research and the development of programs.

This study describes some of the language used by teacher educators in one faculty of education in an attempt to discover some of the beliefs about teacher education that may be reflected in that language. It is impossible to describe in one study all areas of language and belief that teacher educators may use. This study focuses on the language that certain teacher educators used when asked to discuss the knowledge that they believed that they possessed, the practices they used when educating undergraduate student teachers and the relationship between that theory and that practice.
Lanier and Little (1986) noted that although the problems of teacher education have been discussed throughout the twentieth century, few people concerned . . . seem to recognize the enduring nature of the problems, and that research on teaching teachers stands in stark contrast to research on teaching youngsters. When teaching is studied in elementary and secondary schools, teachers are considered too important to overlook. But teachers of teachers--what they are like, what they do, what they think--are typically overlooked in studies of teacher education (p. 527).

A review of teacher education literature conducted as part of the present study indicated Lanier and Little were correct in their assertion that the conduct of teacher education by teacher educators is infrequently studied. Yet it seems reasonable to suggest that understanding the knowledge and practice of those who educate teachers is likely to be central to any understanding of teacher education (Kleine & Smith, 1987). The beliefs of teacher educators about types of programs, the knowledge, and the practice that should be part of what they do to ensure the education of teachers, are surely an important component of any useful theory of teacher education.

Most studies of faculties of teacher education have not been directly concerned with the beliefs that may underlie programs and the work of faculty members. The beliefs that form the basis for researchers' conclusions or faculty members' actions in studies that have been done are seldom made explicit, although it is possible to infer teacher educators' beliefs about the nature of their work from teacher education literature (Lanier & Little, 1986; Tisher, 1987; Wideen, Holborn & Des Rosiers, 1987). It is possible to infer that collegiality and dialogue are appropriate behaviours for members of a faculty of education from an expressed concern about the lack of these characteristics. Similarly, a belief that social hierarchies in faculties of education are wrong or counter productive may be inferred from statements of concern about them.
Roberts (1985) called the topic of the relationship of theory and practice in the curricula of teacher education a "tired" though important one. Discussion of theory and practice in teacher education usually focuses on curricular issues or on the implementation of the practice-oriented components of programs. The most common theory-practice discussions in teacher education literature are about the theory to be taught to student teachers, the practices that student teachers are to be encouraged to adopt, and the relationship between these two. Discussions of the relationships between various kinds of theory and the work of experienced teachers are also present in the literature. Peterson and Comeaux (1987), for example, explored the knowledge, both theoretical and practical, of successful teachers within a cognitive psychological frame.

Few writers have discussed the theory teacher educators should use to organize and conduct their work. Beliefs about theory and about the practice of teacher education may be inferred, nevertheless, particularly from literature that advocates programs for student teachers.

In short, the theories most often discussed in teacher education literature are those teacher educators believe should be taught to student teachers. Practices that usually concern teacher educators are those in which student and beginning teachers are expected to engage. Researchers in teacher education have most often attempted to develop structural or institutional solutions to perceived problems of ensuring the integration of theory and practice by student and beginning teachers (Holborn, 1981).

Existing teacher education literature indicates that a wide range of opinion may exist among teacher educators about the nature of the knowledge that they have, or should have. There may be an equally broad range of opinion and belief about practices conducive to effective teacher education (Tisher, 1987; Wideen, Holborn, & Des Rosiers, 1987).

While a researcher cannot hope to describe the broad range of teacher educators' beliefs about the theory and practice important to the successful completion of their tasks in one study, it is reasonable to hope to make a beginning. Before attempting to discover
what knowledge teacher educators may be said to possess, it is helpful to begin to describe their beliefs about such knowledge. Before attempting to discover the nature of effective practice by teacher educators, it is helpful to clarify the range of beliefs teacher educators hold about appropriate practice. Such research offers the possibility of a fresh perspective on the perennial problems of teacher education.

In this study the language some members of one education faculty use to talk about the knowledge they believe guides their practice is described and interpreted. The result is a description of several common conceptual terms and of the variety of their use by these teacher educators. The beliefs which are the basis of these teacher educators' views of their work, are discussed within a framework of categories drawn from views of theory, practice and the relationship between the two.

Frameworks Used in Organizing this Study

Social Construction

In this study it is assumed that persons construct understandings of their roles, and explanations of events, as members of groups and in specific contexts (Berger & Luckmann, 1971; Blumer, 1969). The social interaction in which persons construct understanding includes all symbolic communication, including that with persons remote in time and space and with oneself, as well as with others in face-to-face interaction. The purpose of this study is to describe such constructed understandings as they appear in certain teacher educators' discussions of their work. People work within a variety of social contexts. Contexts consist of elements that are received from the social situation as it has been constructed by others and of elements that are part of the experience of the individual. People have position in their social context in terms of space and time, of status and role, and of moral and ideological stance (Schutz, 1967). Contexts often appear, to
those experiencing them, to have a high degree of stability whatever the actual state of affairs may be. Nevertheless, persons living and working in certain contexts may influence the nature or structure of those social contexts even as they are, in turn, influenced by them. People do this by assigning meaning to the various physical (a desk), social (a person) or abstract (a concept such as development) 'objects' that make up their context (Blumer, 1969). The beliefs which have been constructed are the focus of this study. The process of construction is a foundational assumption of the study.

The 'objects' of interest in this study are the abstractions called conceptions, special uses of a concept developed by teacher educators to use as they talk about their work. The 'objects' collected and interpreted were the conceptions teacher educators used to talk about their work, and the beliefs that appeared to be an essential part of their use of these conceptions.

Since the meanings attributed to these "objects" are influenced by biography as well as by social context, it follows that people within a specific setting may assign meanings to any given term at least somewhat different from those assigned by others in that setting. The actions undertaken by individuals within a context may therefore be different if the meanings attributed to terms common in the context differ. Woods (1984) suggested that teachers continually construct as well as follow curricula. It seems likely that teacher educators do so as well. When, as is the case with teacher educators, persons may work within a variety of settings, the possibilities for multiple constructions of the meaning of certain key concepts are considerable. These constructions of meanings will reveal differing beliefs about the work of teacher educators, as those beliefs are formed within individual and group experience.
Concepts and Conceptions

Coombs (1987) suggested that persons often form specific conceptions of concepts whose meaning in ordinary language is very broad. They may do this to use the concept in some specific way or for some ideological purpose. For example, a person may use a certain conception of the concept 'reinforcement' because he or she wishes either to discredit or to encourage the adoption of a certain set of beliefs by others. Reinforcement may be used as if it meant mechanical drill, or even coercion, or it may be used as if it meant caring, gentle encouragement. The general use of the concept is broad enough to allow the construction of both conceptions. A specific conception of a general concept is thus often constructed around, or to promote, a certain set of beliefs.

A view of the nature of belief is, therefore, an important part of the framework of this study.

Beliefs

The beliefs of the teacher educators interviewed have, no doubt, been personally constructed through a combination of common sense, education, and social pressure in response to a given situation.

A belief involves a proposition and may be consciously or unconsciously held. It can be inferred from what people say or do. Beliefs can involve propositions which describe, prescribe or evaluate (Rokeach, 1968). This study describes beliefs about the theory and practice of teacher education espoused by teacher educators in a certain faculty of education. These beliefs were either explicitly stated in interviews or inferred from statements about the knowledge or the practice of teacher education made by the teacher educators interviewed.

The teacher educators in this study expressed a variety of stances or sets of beliefs about the work that they do, about the knowledge they believe they need to do that work,
and about the methods they used in that work. These teacher educators have strongly held beliefs about the way student teachers learn to be teachers. These teacher educators all used the term 'development' to talk about what they knew about teacher education but they used it in a wide variety of conceptions. To describe beliefs about methods of teacher education they often used terms such as modelling or reflection but a variety of conceptions of these terms are also apparent. The beliefs these teacher educators hold about theory and practice and about the relationship between the two can be seen to reflect Western thought from Plato to the present. Teacher educators experience dilemmas as they try to put their beliefs into practice in their work. These beliefs include difficulties which arise from the need to apply beliefs which have arisen in the very different contexts in which teacher education takes place, schools and universities.

The Purpose of the Study

This is an interpretive study of the beliefs of teacher educators about the work they do as they help preservice teachers to learn the profession of teaching. This description of the ways these teacher educators conceptualize their work will help them and others to criticize the frameworks within which preservice teacher education takes place. A description of the beliefs that may be inferred from these conceptualizations will help these teacher educators, and others, to understand some of the perennial problems of teacher education. Bruner (1986) described two ways in which professional psychologists and professional writers attempted to understand the nature of narrative in seminars which he conducted. In general the psychologists took a rule or generalization oriented approach to the task, while the writers worked from analysis of specific examples toward understanding. Bruner said that the experience of working with these two groups was very important to his own understanding of the nature of learning about narratives. It gave him a "stereoscopic view" (p. 10) of the matter. This study produced a similar view of the nature
of the work of teacher educators. It made it possible to look at more than one aspect of that work at one time.

Obtaining this stereoscopic view involved situating conceptions and beliefs in their intellectual context. Conceptions and beliefs about the nature and relationship of theory and practice in teacher education were the central focus of data collection and interpretation. They were categorized, first according to views of the theory-practice question found in general philosophical literature. As the study progressed categories derived from the discussions of the participants modified or replaced the initial ones.

This study reports the analysis and interpretation of the conceptual language of 25 teacher educators. The study describes the conceptions the teacher educators used to talk about what they must know and be able to do to be good at their work. Interpretation of the beliefs which subsume their use of conceptions makes a stereoscopic view of the beliefs and concepts used by these teacher educators available. It offers the possibility of explanations, different from those outlined by Lanier and Little (1986), for difficulties experienced by teacher educators as they work to educate beginning teachers in university programs. Lanier and Little suggested, as one of their explanations, that many teacher educators may be so crippled by their socio-economic origins that they are incapable of working within the traditional value system of the university. The data gathered and interpreted for this study suggest that, given the present state of knowledge and belief about teacher education and the contexts within which teacher education occurs, this problem and other difficulties of the sort described by Lanier and Little in teacher education are inherent in the tasks required of teacher educators as they work in university faculties and in school systems.
Research Questions

Wideen (1983) described Canadian teacher education programs that were designed to encourage student teachers to use theory effectively in their practice and had some success in this endeavor. The question, he said, is 'What are they doing right?' This study is concerned with prior questions. 'What is it that teacher educators believe they are and should be doing and what beliefs about knowledge and about practice do teacher educators hold?'

The primary research question addressed in this study was, what do educators of preservice teachers, working in one faculty of education, believe that they know, or should know, and should be able to do in order to be effective in the task of educating beginning teachers? What beliefs about the nature of knowledge, and about the relationship of theory and practice do preservice teacher educators hold?

Assumptions

A fundamental assumption of the study was that to understand a person's action one must understand the frameworks of understanding and belief within which that person acts. One means available to the researcher who wishes to understand them is to analyze individuals' accounts of their activities as teacher educators and thus to infer their frameworks. One might then be able to compare these descriptions to their actions. This study accomplishes the first half of this task. It provides a collective description of the frameworks of 25 teacher educators.

It is difficult to do empirical research in accordance with the assumption that to understand action we must understand the frameworks of the actors. The researcher must acquire some degree of understanding of the culture of the individual participants as well as some appreciation of the participants' views, hopes, and ideas as they are reflected in the participants' talk and action. The researcher must adopt a broad view of the work of
teacher educators. The views that persons have of the nature of knowledge, of problem solving, and of the relationship of theory and practice influence their action. To fully understand this action it is necessary to make these views or frameworks explicit. For example, a teacher educator who believes that theory may directly guide practice may choose to use the methods of competency-based teacher education. A teacher educator who believes that practice is the only reasonable source of professional theory may choose to use what are called in this study, methods of rational inquiry or of description of personal meaning because he or she believes them more likely to help student teachers understand practice. The framework of the first teacher educator is similar to that described by Bruner (1986) as the first half of the stereoscope. The framework of the second teacher educator reflects the second half of the stereoscope.

This study concentrates on descriptions of the participants' assumptions about the nature of theory and practice and of the relationship between them found in teacher educators' discussions of their work.

Conclusion

In this study the ideas used by a group of teacher educators to describe the work they do were analyzed in order to describe a variety of conceptions, or forms of certain concepts, used by these teacher educators. The beliefs which apparently subsume the use of these concepts are described and discussed. The concepts, conceptions, and beliefs that were of interest in the study were those that the teacher educators used to explicate the knowledge and the practice that they believed should, and did, inform their work as teacher educators.

The design of the study reflects the attempt to find a stereoscopic view to use to enhance understanding of the work of teacher educators. The study began with a review of literature based on an attempt to find and describe general categories of understanding of
the nature of theory and practice generally and in teacher education. As the study progressed categories arising from interpretation of the interviews with the teacher educators gradually assumed importance, even influencing the categories used to construct the final version of the review of literature. The method of the study assumed the value of understanding particular incidents to coming to understand teacher education. The discussion and conclusion moved toward some more general discussion of the work of teacher educators in order to present a unified view of the question of the study. This view might be called the result of focusing the stereoscope. This final view leads to a more complete understanding of the complexity of the environment within which teacher educators must try to meet the many demands for reform of teaching and teacher education (Wisniewski and Ducharme, 1989; Goodlad, 1990; Sirotnik, 1990).
CHAPTER TWO - REVIEW OF LITERATURE

The purpose of this study was to describe the concepts and conceptions that are used by a group of teacher educators to talk about their work in order to discover the beliefs about the relationship of theory and practice, about the nature of knowledge, methods, and about the changes undergone by student teachers that underlie use of these concepts and conceptions. This chapter outlines general beliefs about theory and practice in order to form initial interpretive categories for use in the study. A second part of the chapter reviews teacher education literature generally to form more specific categories. This portion of the chapter was much influenced by the categories arising from the interpretation of interviews with the teacher educators who participated. The review represents a blending of categories to describe some general trends in teacher education literature. A final section of the review includes literature which supports the assumptions of the study and also supports the method of the study.

The purpose of teacher education, as of education of professionals generally, is to help students learn to use the accumulated knowledge and skills of the profession. Assumptions about the knowledge and the practice required of successful teacher educators seem likely to be a part of every professional education program. These assumptions may be explicitly stated; they may also be implicit in the structure of curricula, methods and materials. Awareness of these assumptions may help teacher educators and others to form a basis for understanding teacher education.

This review of literature included discussions of conceptions of theory and practice; general conceptions and conceptions specific to teacher education. These conceptions form two major categories; those emphasizing the primacy of theory and those emphasizing the primacy of practice. Each major category is further subdivided into several subcategories respectively.
The role of belief in the formation of concepts is also discussed. The beliefs of teacher educators about the theory and practice of teacher education, as they are represented in the literature reviewed, blend with categories derived from the participants' interviews to form the major analytic categories used in Chapters Four and Five. A brief review of cognitive psychological literature on learning and on the work of experts and novices influenced this category formation.

General Views of Theory and Practice

Concern about theory, practice, and the relationship between the two is a noticeable feature of teacher education literature. Noticeable, too, is a tendency to talk as if either theory or practice were necessarily primary in the education of teachers. The terms 'theory' and 'practice' represent concepts that may be used in many ways. Theory may refer to ideas, knowledge, or philosophy. It may refer to a framework that provides the rules and principles for investigating certain kinds of problems and also for the explanation that may result from these investigations.

Practice has a wider variety of use. It is used in the vernacular to mean to do something, 'I practise yoga', to follow a habit, the performance of my profession, and to do something as opposed to merely thinking about it. In this last sense, it often means to be concerned with daily reality rather than with some 'unrealistic notions' of theory divorced from reality (Crocker, 1983, Kilminster, 1979).

Practice may denote descriptive or normative ideas about the way persons do and should act. It may signify an ethic, the moral obligation of a man to live a life devoted to the political health of his community. Practice may denote a picture, or an explanation, of observed social phenomena.
Practice, in teacher education literature, is often used to mean the behavior or actions of persons as they work at their profession, or repeated attempts to perfect some professional action (Ball, 1987).

**Conceptions of the Roles and Relationship of Theory and Practice**

Schwab's (1968) definitions of theory and of practice are basic to this study. Theory, or the theoretic, Schwab defined as general statements or explanations, thought to be truths, which endure. Theories apply to large classes of objects or events. In this view, theory is treated as if it were constant and unlikely to change while it is recognized that all theories are open to falsification. Practice, or the practical, is considered to be particular, concrete, vulnerable to change and concerned with action rather than truth.

Two major categories of descriptive conceptions of the relationship between theory and practice are commonly used in the literature about these concepts. (The term 'conception' is used here to indicate a specific use of a general concept.) References of teacher educators to their own practice or that of teachers usually fall into one or another of these two categories.

**The Primacy of Theory**

The first category of conceptions assumes a direct means-end relationship between theory and practice. In this view theory and practice may be seen as separate or separable and certain theory is believed capable of causing certain practical results if applied (Bernstein, 1983).
The Primacy of Practice

Those who believe in the primacy of practice may hold one of several versions of this belief. They may believe that only practical knowledge, that knowledge that results from direct, personal experience, is a valid guide to the performance of action. They may believe, on the other hand, that although practice is primary, theoretical knowledge is a useful adjunct to practical knowledge and may help the practitioner to recognize and organize important personal practical knowledge (Bernstein, 1983).

Theory and Practice: An Ongoing Interaction

A third category of beliefs is evident. Persons holding this set of beliefs conceive of theory and practice as forming two interacting parts of a single social reality. Theory is not separable from practice even for purposes of discussion or investigation. They believe that there is a continuing relationship between ideas and experience, between theoretical notions and lived experience, that results in new sets of theoretical notions, notions that are, in turn, engaged by experience. These persons believe that there is no final discovery of truth, but, at the most, an ongoing discovery of truth that is temporal but nonetheless valid (Bernstein, 1971; 1978; 1983; Entwistle, 1979; Fuss, 1977; Kilminster, 1979; Lobkewicz, 1977; McCarthy, 1978; Raschke, 1977).

Some persons hold that personal practical knowledge, that is the knowledge that each person develops, is the only knowledge that may be used to guide personal practice. Other persons may seek to develop systematic ways of organizing and sharing that personal practical knowledge, thus making it possible for it to be shared with others to improve their practice, and still others may seek to be part of an ongoing and unending process of the development of theory and of practice.
Two Views of Knowledge

The conceptions of the nature and relationship of theory and practice outlined above are found within two different traditions in Western thought. Whitehead (1933) and Husen (1988) discussed these traditions. Whitehead (1933) described two approaches to understanding knowledge and knowing that have dominated the history of Western thought. He called these the speculative approach, that emphasized interpretation, and ascribed its beginnings to Plato, and the scholarship approach, emphasizing systematic description and generalization advocated by Aristotle. Husen (1988) called these traditions by their German names, erklaren and verstehen. Erklaren emphasizes deduction and the determination of systematic generalizations based upon careful, empirical observation and analysis. Verstehen emphasizes giving reasons, interpretation and understanding. Erklaren is based on an attempt to achieve objectivity, verstehen on an attempt to achieve rational subjective understanding.

The Two Views as Seen in Educational Literature

These two ways of thinking about the nature and acquisition of knowledge can be used to describe educational practice. Callaghan (1962) said that a way of thinking that emphasizes 'scientific' objectivity has been dominant in American education throughout the twentieth century. He called this the cult of efficiency. It began, he said, with the scientific management ideas of Frederick Taylor and their translation to the administration and structuring of schooling by persons such as Franklin Bobbitt, Charles Judd and Elwood Cubberly.

Educators who accepted Taylor's ideas attempted to observe teachers to determine the most efficient and effective ways to teach and to manage schools. They attempted to devise ways to ensure that all teachers would use these effective methods faithfully (Cooper, 1988).
The beliefs about knowing that Whitehead called speculation, when they appear in educational literature, take the form of belief in the capability of teachers to improve their own practice, either through rational analysis of that practice in relation to a variety of theoretical perspectives or by rational means to develop or make explicit the theory implied by personal practice (Cooper, 1988).

**Solving Educational Problems**

The way one views the structure of knowledge about society, and the relationship between theory and practice, influences the way one attempts to solve problems. If knowledge is seen as context-independent, variables as controllable, and institutions and problems as capable of being tightly structured, people appear to look for rules and principles to use in solving problems. If a person believes that knowledge is context dependent and that contextual variables are essentially uncontrollable, or loosely structured, that person will most likely attempt to solve problems by identifying constraints and looking for the solution that will best fit those constraints (Hemingway, 1983; Anderson, 1986).

It follows that those educators who wish to work with the knowledge of education, pedagogy, instruction and learning as if it were a tightly structured discipline may attempt to apply the methods of observation, analysis, rule and principle formation to the study of education. They may then attempt to apply the results of their study to the education of children and to the education of teachers. Such educators are expressing a belief in the primacy of theory.

Those educators who see no reason to believe that the problem environment faced by teachers is, or can be, anything other than loosely structured may reasonably choose the methods of speculation, of reasoning from the known to the unknown or from
experience in their construction of pedagogical knowledge and of teacher education. They are acting as if they believed in the primacy of practice.

Gauthier (1963) differentiated between theoretical problems and practical problems. Theoretical problems are amenable to being solved by understanding something. Practical problems are those whose solution lies in doing something. Practical problems occur in a particular context and they must be solved within that context. Theoretical problems may be solved without reference to context.

To solve a practical problem an appropriate action must be performed. To decide about this action one must first engage in practical reasoning. One must decide what it is best to do given the context of the problem. To justify this judgment or decision one must solve the problem or show that the action that was intended to solve the problem was reasonable given what was known about the context and the problem at the time. To do nothing is an action, for if the time when the problem may be solved passes while one is waiting for more knowledge the problem becomes unsolvable. One must decide what it is best to do given what is known about the problem and the context (Gauthier, 1963). Thus, according to this view, it is not possible to directly apply any theory or principle to a practical problem. The context-dependence of practical problems necessitates a particular solution for each problem. The problems and decisions of teacher education would be practical ones in terms of this analysis.

Hampshire (1949) spoke of the normative nature of practical judgment. Value judgments are not, at least on most accounts, part of theoretical judgments, that is, of the formulation of generalizations about phenomena. All practical judgments do involve value judgments since practical decisions can't be made without thinking what it may be best to do under the particular circumstances of the case. Practical decisions often must be made in the knowledge that the results will not be uniformly helpful to all persons concerned.
Summary

Within the context of Western ideas it is possible to think of the learning, knowing and problem solving that may occur in education in a variety of ways. One may believe oneself to be engaged in a theory-driven activity involving either the application of rules derived from the systematic study of phenomena or the application of generalizations determined through rational deduction from authority. Educating teachers may be approached as if it were a theoretical problem.

Contrarily, one may see oneself as engaged in solving practical problems, using knowledge that is context specific and learned through experience in that and similar contexts. Bruner (1986) said

I want to explore some of the ways in which we create products of the mind, how we come to experience them as real, and how we manage to build them into the corpus of a culture as science, literature, history, whatever (p. 45).

Finally the activity may be conceptualized as an ongoing interaction. Theoretical and practical knowledge is discovered, applied, confirmed, disconfirmed, in a never-ending process of solving both theoretical and practical problems.

This study represents the beginning of an exploration like that which interested Bruner (1986) in the field of teacher education. The views of theory and practice so far described formed the initial basis of categorization and interpretation carried out in the study. These products of the mind, as Bruner called them, are thought of in this study as concepts, conceptions and beliefs. The next section of the review briefly discusses the notions of concept and conception as they have been used to design this study.

Beliefs and Conceptions

Concepts are words that are used to describe certain classes of objects or ideas. Wilson (1969) said that we form concepts by learning to group together certain features of experience. His examples suggest that persons gradually learn the meanings that those
around them give to certain concept names. Meanings are constructed by individuals in a social context.

Medin and Smith (1984) reviewed psychological literature on concept formation and concluded that there appear to be three ways concepts are formed. These are called the classical, probabilities, and exemplar means of concept formation. The classical method of concept formation occurs when people compare examples of similar objects, determine their essential attributes, compare them and the attributes to non-examples, until they have discovered a concept rule, or definition. The probabilities method deals with concepts that are more difficult to determine exactly. People develop a general set of descriptors of the concept none of which is entirely necessary or sufficient as a definition of the concept. It is also possible to form concepts using exemplars. This might be called the 'I'm not sure exactly what its characteristics are or should be but I know one when I see one' method. Teacher educators may form concepts in any or all of these ways.

Conceptions are the result of the tendency of persons to construct or reconstruct concepts to suit their purposes and beliefs. Conceptions make an ill-defined or all-inclusive concept more pointed or precise. Conceptions may include the criteria required if one is to use a value term (Coombs, 1987).

Construction or reconstruction of the concepts that are part of the language of a professional group can be of help to persons who wish to better understand such groups. Considerable confusion can result if those who have constructed several conceptions bearing the same concept name are convinced that theirs is the true conception. Confusion may also result if those who construct conceptions are unaware that the words they use may have different meanings for persons outside the professional group.

There are conceptions, or uses of concepts, peculiar to teacher education. Even a cursory review of the literature about the curricula and methods of teacher education turns up such phrases as 'narrow the theory-practice gap.' The conceptions of the theoretical
and practical knowledge that certain teacher educators believed that they needed in order to do their work were the subject of this study.

Teacher Educators' Knowledge and Beliefs

There has been little direct study of the knowledge and beliefs of teacher educators. Since part of the work of teacher educators, that part that is of interest in this study, is teaching, certain views of the knowledge and beliefs of teachers are reviewed here in order to further delineate the initial design and interpretive framework of the study.

Knowledge

Shulman (1986) suggested that teachers need to use three different kinds of knowledge. They use declarative knowledge, procedural knowledge and case knowledge. Declarative knowledge is systematic, analogous to theoretical knowledge. In the case of teachers of teachers, declarative or propositional knowledge is taken from the disciplines they teach, from educational psychology, from pedagogy, and from philosophy, sociology and anthropology.

Procedural knowledge is the knowledge used to make methodological or supervisory decisions, or to teach less systematic aspects of disciplines, psychology and foundations. It is one form of practical knowledge.

Case knowledge is used to make decisions in matters when the first two kinds of knowledge have little to say that is helpful, or when what is available in the various sets of procedural and propositional knowledge is contradictory. This knowledge is practical and often very context dependent (Hemingway, 1983). It is likely that case knowledge is very frequently used by teachers since teaching is such a complex activity (Lortie, 1975; Jackson, 1968).
Propositional knowledge provides the content to be taught and the information to be used in the construction of teaching practice. Procedural knowledge and case knowledge are based on experience, both experience that is shared with others and personal experience. Reynolds (1989) quoted Dewey:

Every study or subject thus has two aspects: one for the scientist as scientist; the other for teacher as teacher. These two aspects are in no sense opposed or conflicting. But neither are they immediately identical (p. 24).

If Dewey and Reynolds are right, then teacher educators must be concerned with two kinds of theory and with two kinds of practice when they help student teachers learn to teach. They must ensure that their students learn the theory and the practice that forms the disciplines that the student teachers will teach and they must ensure that their students learn the theory and the practice that will enable them to teach well. Teacher educators must also develop some theoretical conceptions of, and some practical methods for, working with the relationship between these two kinds of theory and practice.

Grossman, Wilson, and Shulman (1989) in a discussion of the subject matter that student teachers are being educated to teach summed up their view in this way.

What emerges from our work... is the notion that prospective teachers' beliefs about subject matter are as powerful and influential as their beliefs about teaching and learning. Teacher educators must, therefore, provide opportunities for prospective teachers to identify and examine the beliefs that they have about the content that they teach. Additionally, we need to help teachers acknowledge the influences that those beliefs have on what they learn and what they teach (p. 29).

Scardamalia and Bereiter (1989) suggested that there are four stances that may be taken with regard to the work done by teachers. We may think of it as cultural transmission, as the training of skills, as the fostering of natural development or as the production of conceptual change. Each of these stances posits a different relationship between theory and practice. Teaching as cultural transmission assumes that knowledge or theory will be directly transferred from teacher to student. This is an implicitly theory-driven stance. Teaching as the training of skills, whether the traditional computational and communicative skills, or more complex skills such as problem solving, planning, or
reflecting, assumes a direct application of theory to practice. This assumes that student teachers, directly taught the theory which has been derived from the observation of expert practice, will become expert. Teaching as the fostering of natural development assumes that students have a natural propensity for development that, if encouraged and supported, will result in learning. This is an implicitly practice driven stance. This assumes that student teachers can only construct knowledge and competent practice by trying to teach and coming to understand their teaching experience. Teaching as the production of conceptual change was described by Scardamalia and Bereiter as

the teacher get[ting] inside the student's mind and make[ing] contact with what is there. Failing that, the teacher is forced back into the role of transmitter of knowledge or supporter of natural learning processes (p. 39).

This is a stance that assumes the primacy of practice; however it also assumes that learning is publicly communicable, or open to general application, in ways in that the natural development view does not.

Clearly there are many ways to view the knowledge of teachers, and just as clearly, these views may be categorized as emphasizing theory or practice.

Belief

The purpose of this study is to describe teacher educators use of concepts as they talk about their work and to discuss and describe the beliefs which appear to subsume their use of these concepts and conceptions. Rokeach (1968) defined belief as "any simple proposition, conscious or unconscious, inferred from what a person says or does, capable of being preceded by the phrase 'I believe that'..." (p. 113). Rokeach suggested that beliefs may be categorized as descriptive, evaluative or normative. That is, they may be about the nature of something or the worth of something, or about a moral or ethical rule. Rokeach (1960) says that all of those "... beliefs, sets, expectancies or hypotheses, conscious or
unconscious, that a person at a given time accepts as true of the world he lives in" (p. 33) form the belief system of that person.

Kleine and Smith (1987) described the "origin, development and transformation" (p. 9) of the belief systems of one teacher in an American school known for its long term commitment to innovation. They said that what they call the life history of this teacher, when investigated, provided a source of insight into the beliefs, and therefore, the actions of this teacher. This study shows the complexity of one teacher educator's belief and suggests the usefulness of further investigation of teacher educators' beliefs.

Crow (1987) conducted a study of a teacher educator working in a program that espoused the deliberate use of educational theory in the practice of teachers and espoused critical reflection on the resulting practice. She described the ways this teacher educator, interacting with student teachers, encouraged, instead, the student teachers to believe that theory is essentially separate from, and unrelated to, practice. This study demonstrates the role of values and belief on the work of both student teachers and the teacher educator. The teacher educator, by his actions, taught a view of teaching that was opposite to what he intended.

Tisher (1987) and Wideen, Holborn, and Des Rosier (1987) reviewed Australian and Canadian literature on teacher education. Lanier and Little (1986) reviewed American literature. These reviews demonstrated how little analysis of the beliefs of teacher educators, or of their views of the theory and practice of teacher education, has been done in Canada or Australia or the United States of America.

Tisher (1987) suggested that failing to take "account of the intentions and motives of those involved in teacher education" (p. 28) has distorted the issues that have been investigated in Australian research.
Beliefs about, and Conceptions of, the Theory and Practice of Teacher Education found in Teacher Education Literature

Cordis and McBeath (1982) provided an useful example of the widespread nature of concern about theory, practice, and their relationship found in teacher education literature. They included a quotation from a New Zealand government report by a member of a New Zealand faculty of education. Campbell (1977) quoted a student teacher.

The worlds of colleges and schools are miles apart, and never the twain shall meet. The colleges are all theory and no skill; the schools are all skills and no theory. Presumably, it is left to us to match the pieces, but it is like one of those kit sets where you are left with the wrong pieces. It doesn't seem possible to fit them together. We have either got the wrong theory or the wrong practice or perhaps both (p. 8).

Cordis and McBeath are Canadians. The paper from which this quotation comes was presented at seminar of teacher educators from many parts of the world, held in the Netherlands. These persons, from such diverse backgrounds and experience, recognize a common experience. Clearly many beliefs and concerns about the theory and the practice of teacher education are common to a wide variety of teacher educators and student teachers.

Teacher education literature also contains numerous examples of differing conceptions using the names 'theory', 'practice', and 'the relationship of theory and practice.' These conceptions may be categorized, as we have seen, as expressing belief in the primacy of theoretical knowledge or belief in the primacy of practical knowledge as guides and foundations for the actions of teachers and, perhaps, of teacher educators. Grimmett (1988) made the point:

Different conceptions of reflection have been categorized according to the ontological dimension of how research-derived knowledge is viewed as contributing to the education of teachers. . . . distinctions have been made on the basis of their answers to the question, is research derived knowledge seen as the source for mediating action . . . the purpose of reflection is to direct teachers in their practice; or is such knowledge regarded as informing practice in the sense of providing a rich basis for selection as teachers deliberate among competing alternatives for action; or does research-derived knowledge constitute one source of information whereby teachers apprehend practice as they reconstruct their classroom experiences (p. 76).
A review of recent teacher education literature shows that these categories can be further refined. There are at least three distinct ways educators believe that theory guides practice, and there are at least four different ways persons may believe that practical knowledge is derived and is related to the actions of educators. These categories as represented here in the review are a blend of those general categories described above, categories apparent in literature reviewed and the categories as they were formed in the interpretive phase of this study. This process of category formation, moving between literature review and interpretation of interview data, is further described in Chapter Three.

Three subcategories of belief in the primacy of theory are described first. Four subcategories of belief in the primacy of practice follow. Examples are provided in each case.

The Primacy of Theory

The three subcategories of conceptions of the relationship of theory to practice that emphasize the primacy of theory are naive deduction, classical rationalism, and technical rationalism.

Naive deduction.

Persons who use a naive deductionist conception of the relationship of theory and practice speak as if they believed that if students, or student teachers, are provided with enough theory, whether it be great ideas, references to authority, or notions of the structure of independent disciplines, they will understand how to teach, or how to teach those ideas or disciplines. Such persons do not see the need to provide student teachers with any forms of practice nor do they see the need to encourage any specific or directed reflection. They believe that students will 'see' the value of the idea, or 'come to understand' how to teach when the situation arises.
Taylor and Miller (1985) reported a study of the relationship between evaluations of student teachers' practicum performance and their performance on university courses. They conclude that there is little relationship between student teachers' understanding of what was taught in education classes as measured in the instructors' evaluations and the performance of student teachers in the practicum.

Taylor and Miller suggested that the results of the study might be used by persons committed to the idea that teacher education must relate directly to school practice to conclude that all content that cannot be shown to relate to classroom practice should be discarded as irrelevant or that all teacher education courses should be 'experientially based'. Taylor and Miller (1985) disagreed with this interpretation of their results:

- teacher trainees must be fully exposed to contemporary educational theory upon which sound practice ought to be based and they must demonstrate an awareness, understanding and appreciation of these theoretical underpinnings (p. 116).

Since the program at their university is intended to "bridge the gap between theory and practice" they are puzzled that "a pragmatic and untheoretical stance" that unquestioningly accepts, and seeks to implement, practice as it exists in the classrooms seems to have arisen among their students. Taylor and Miller concluded that the results of the study they conducted were disquieting, not because they suggested a weak relationship between theory and practice in the teacher education program, but because they suggested any relationship at all.

Taylor and Miller seem convinced that if good theory is presented to student teachers they will teach well when the time comes. They are unsure just how this comes about however. This is an example of a naive deductionist conception of the relationship of theory and practice.

Emerson (1986) provided another. Reacting to the Taylor and Miller (1985) article he made some interesting, if conceptually confused statements. They include:

a. It is fatal to a theory to be too closely related to practice.
b. teacher education theory that is unrelated to classroom practice is valuable in the same way that 'pure' theory, developed by scientists who see no immediate use for it, is valuable.

c. It is not true that methods classes are more useful than foundations classes, nor that surviving in the classroom requires certain specific techniques, nor that longer practica are better, nor that practicum performance is the best predictor of future teaching effectiveness.

d. It is not true that 'An idea may be alright in theory but not in practice.'

e. Teachers soon learn that they need the understanding that theory gives them more than they need technique.

Emerson (1986) concluded:

It is regrettable, however, when teachers view theory and practice as contradictory thrusts in education rather than as complementary or separate facets of good teaching (p. 18).

It is clear that Emerson was against anything that suggested the primacy of practice. It is not clear why because he did not present a clearly reasoned argument. Although he seemed to allow for the possibility that theory may complement practice, he did not seem to have any clear view of how that might happen.

The major characteristic of naive deduction is an apparent belief that the relationship between theory and practice is non-problematic: theory will guide practice. This belief is common to all forms of belief in the primacy of theory. A lack of concern with the way theory may guide practice, is, however, peculiar to naive deduction.

Classical rationalism.

Teacher educators who use a classical rationalist conception of the relationship of theory and practice do not assume that teaching good theory to student teachers will automatically ensure good practice. They believe that good practice will result only if the
student teacher is capable of understanding the theory systematically and logically. Some classical rationalists are more concerned with the procedures that should be used by teacher educators to ensure understanding and correct application than are others. All classical rationalists assume that these procedures will follow the canons of clear thinking that have been laid down by logicians and philosophers throughout the history of Western thought.

Buchman (1984) provides an interesting example of this category.

The fascination of educators with things and techniques is troublesome, no less so than unexamined beliefs in learning by doing and the unrealistic goals that seem to come with the territory. The philosophy and social sciences of education compass much that is dry theory and energetic folly. Thus I submit three pleas for discussion.

a. No more learning by doing. Student or practice teaching should either be dispensed with as a frill (and an often uneducative one at that), or be institutionalized in earnest after graduation. In this case, subject matter experts should supervise all beginning teachers, regardless of levels of schooling, . . . . Use all time allotted to conventional forms of classroom induction for the study of history and conceptual foundations of a specialized academic subject.

b. No more "soap operas" in learning to teach. It is not evident that university curricula ought to reflect the problems of new professionals or be geared toward their psychological adjustment. In taking on the teacher role, transitional problems are normal and should not be made much of. People who have fantasies about their effects as a teacher, or who cannot settle down to do their work with the necessary persistence and attack, should not become teachers. Instead of interpersonal skills and parent-teacher relations, teach about the subject-matter specific conceptions and misconceptions of learners.

c. More inspirational education. The teacher's calling has dignity. It requires a good mind and heart and a sense of obligation. The teacher's work gives people access to the life of the mind. Don't be afraid to tell future teachers so. Instead of so-called educational theories and the foundations of education, let them study the lives of people who took teaching seriously.

None of this is surprising. But for the requisite mix of sophistication and common sense, we will have to draw on sources outside of schools and colleges of education (p. 46-47).

Buchman seems to believe knowledge of both the subjects to be taught and of inspirational examples is most important to student teachers. Buchman values those ideas that have a long history of academic respectability over those with less such history. Those forms of knowledge that have traditions of rational methods and order are preferred over
those forms of knowledge that emphasize learning from experience or from observation of day to day phenomena.

The time tested scholarly values of rationality, order, justification and critique, will serve, she believed, as valuable guides for the practice of teachers. Knowledge from educational psychology or sociology is not important for student teachers. Education is about the intellect, its development and its understanding of a body of knowledge. Any considerations for the personal emotional or physical health of the student teacher are to be eschewed. Anyone not strong enough to succeed in the intellectually rigorous teacher education envisaged by Buchman is clearly not able to teach and deserves little or no consideration by the teacher educator. The proper practice of teachers and teacher educators is the passing on of knowledge in a disciplined and rational way. One has to infer from this that Buchman sees classroom management and other such practical concerns as nonproblematic to a truly knowledgeable and rational teacher or as mundane matters to be learned on the job. This is not to say that Buchman does not have a theory about education as an activity. A rational, knowledgeable person is by definition a good teacher. Hers is an explicitly normative conception. The paramount values are discipline, rationality and courage. All good teachers will display them.

Thus, the classical rationalist conception of the relationship between theory and practice is characterized by an assumption that teaching and learning to teach are activities that should be governed by rational thought and by rationally derived theory.

Technical rationalism.

Teachers and teacher educators often express the beliefs that they hold about the theory and practice of teacher education in metaphors. Scheffler (1968) presented two metaphors for the teacher. The teacher may be thought of as 'an intellectual technician' or as
a man with a calling or vocation committing him to the values of truth, reason and the enlargement of human powers, dedicated to raising his voice for them, and to shaping the conditions of his work so that these values may flourish.

He concluded:

If we accordingly conceive of the education of teachers not simply as the training of individual classroom performers, but as the development of a class of intellectuals vital to a free society, we can see more clearly the role of educational scholarship and theoretical analysis in the process (p. 92).

Scheffler's intellectual teacher displays some of the characteristics of the classical rationalist view of theory and practice in teacher education. This teacher is an independent decision maker whose work is guided by principles, that are followed thoughtfully. This teacher is concerned with understanding theory, with applying it to practice, not automatically, or faithfully, but rationally. However, the teacher envisaged by Buchman might have a different view of what is meant by the "enlargement of human powers" than do some other groups of teacher educators, including those who use a 'technical rational' conception of the relationship of theory and practice.

Scheffler's intellectual technician represents the conception of the relationship of theory and practice that Schon (1983) called technical rationalism. The technical rationalist talks as if he or she believes that the results of empirical research may be directly applied to teaching practice to improve it. This is the same view that Callaghan (1962) criticized in his discussion of the effect that the principles of 'scientific management' have had on American education.

Sprinthall and Thies-Sprinthall (1983) provided a good example of the technical rationalist conception of the relationship of theory and practice:

we have presented the case for a cognitive-developmental approach for the career development of teachers. We see the framework as providing a solid theoretical basis for understanding the process of growth. Also, following Dewey, we see the possibility of creating programs to stimulate developmental growth. We do not see it as a fallacy to suggest that if we know (tentatively) what development is then we may also know what education ought to be. The evidence strongly supports the assumption that developmental stage predicts qualitatively different levels of human behavior in complex tasks. The evidence on the second point is less clear but suggests that it may be possible to refine programs to the point where stage growth may be stimulated. . . . To build a cumulative base in theory and research is still the most pressing need facing the profession (pp. 31-32).
Sprinthall and Thies-Sprinthall want to develop knowledge that will guide practice. The knowledge that these authors believe to be important for teacher educators is knowledge of the principles of adult learning that may be derived from cognitivist stage theory. This research has identified stages in human growth and learning. This theory is to direct the practice of teacher educators. They are to apply this theory as faithfully as possible in the education of student or inservice teachers.

The authors made only a token shrinking movement before they defied the 'is-ought' fallacy and confidently prescribed teacher education programs and teacher educator action based firmly on the results of the research in which they were interested and involved. If one is uncertain of the security of one's evidential base then one merely uses it to 'suggest' teacher education practice.

The teacher is someone to be developed. It is possible to encourage 'growth' toward effective practice by being aware of and 'stimulating' the mental stages through which an adult passes when learning something new.

Sprinthall and Thies-Sprinthall encourage student teachers to reflect upon what is to be learned and upon the experience of learning it to be certain that they learn exactly what the teacher education program has chosen to teach. The student teachers would learn to see differences between their practice and what has been taught to them and they would learn how to continually move their own practice closer to that their teacher educators consider ideal. The student teacher is an intelligent, as well as an intellectual, technician. So too, it seems likely, is the teacher educator.

Sprinthall and Thies-Sprinthall wished to convince readers that the knowledge that is the proper basis of teacher education is the knowledge that shows us the developmental stages of adult learning. They wish to convince us to apply it directly to the education of student teachers. They have reconstructed the concepts of theory and practice to emphasize this belief and to facilitate this purpose. They believe that theory should be used to guide practice in a straightforward process of application.
Carter (1984) provided an example of this conception as it is held by a group of teacher educators in an American university. The teacher educators in Carter's study distinguish their knowledge from the knowledge of teachers. They believe that one of their responsibilities is to ensure that student teachers learn skills and apply them in classrooms. This is a technical rationalist notion.

Summary.

There are at least three subcategories of conceptions that emphasize the primacy of theory. All three conceptions share the belief that theory should and can guide effective practice. However, persons holding each of the three conceptions have a different view of how theory should and does influence practice. Naive deductionists believe that merely knowing and understanding theory will guarantee its correct application. Classical rationalists believe that theory must be carefully chosen and logically used if it is to result in effective practice. Technical rationalists believe that theory, derived from the observation of effective practice, should be directly and faithfully applied to practice in order to ensure competence.

The Primacy of Practice

William James said in 1892 to the teachers of Cambridge.

You make a great, a very great mistake, if you think that psychology, being the science of the mind's laws, is something from which you can deduce definite programmes and schemes and methods of instruction for immediate schoolroom use. . . . A science only lays down the lines within that the rules of art must fall, laws that the follower of the art must not transgress; but what particular thing he shall positively do within those lines is left exclusively to his own genius. (James, 1958, pp. 22-23).

James appears to believe that the validity of an educational practice is not determined by its faithfulness to a theory but by its success in solving specific educational
problems. Others who believe in the primacy of practice take the stance that theory cannot determine practice, that practice is always primary.

Teacher education literature contains evidence of at least three subcategories of conceptions that emphasize the primacy of practice. These are called, in this review, naïve induction, personal practical knowledge (Clandinin, 1987) and inquiry. The belief that practice is the prime source of the knowledge of competent teachers and teacher educators is common to all categories. Theory is derived from practice and must always be used with due regard for the characteristics of the context of the teacher's work. As with those persons who believe in the primacy of theory, the difference between each of the subcategories of this view lies in beliefs about the relationship of theory to practice that are held by persons in each subcategory.

A significant difference between those who use conceptions that emphasize the primacy of theory and those who use conceptions that emphasize the primacy of practice is that for the first group the relationship between theory and practice is not problematic. Theory guides practice. For those who believe in the primacy of practice, the exact nature of the relationship between theory and practice is far less certain. Theory, at least theory that guides action, must be found in experience, but once found, can it guide the actions of persons other than its discoverers? Some believe that it can, others that it cannot.

**Naïve induction.**

Use of a 'naïve inductionist' conception of the relationship of theory and practice indicates a belief that it is possible for teachers to discover recipes, or 'tricks of the trade' that may be used to ensure that students learn well or behave correctly. Examples of such tricks are often passed from experienced to novice teachers in schools. Some, such as "never smile until Christmas" are recognized with a smile by all who have taught. Examples of naïve induction are less common in teacher education literature than are
examples of naive deduction. This may be because they are so purely practical and thus not likely to be seriously written about by scholars in universities. Magazines such as The Instructor that are intended to help teachers to cope with the daily demands of teaching contain many articles that outline and discuss techniques which may reflect naive inductionism.

Personal practical knowledge.

This conception of the relationship of theory and practice is based on educational applications of the work of Schutz (1967) and other phenomenologists, who assumed that to understand social phenomena we must understand the meaning that those phenomena have to persons experiencing them. Practice is seen as the only source of valid and reliable knowledge about teaching. Each person must discover this knowledge for him or herself, although others, such as teacher educators, may help the teacher to conduct the search and to articulate the knowledge that is discovered. Clandinin (1987) provides an example:

In this account of a beginning teacher's experience, it is clear that learning to teach involves much more than learning and applying skills. Learning to teach involves the narrative reconstruction of a teacher's experience as personal practical knowledge is shaped through its expression in practical situations (p. 21).

Clandinin's development of the 'personal practical knowledge' conception indicates a belief that the knowledge that is most required by a beginning teacher is practical knowledge, that is to say context-dependent knowledge that can only be learned through experience. Beginning teachers 'reconstruct' theory through understanding the 'story' embedded in their day-to-day experiences in classrooms. Relating theory and practice is not applying skills or strategies that others have found effective. The beginning teacher actively constructs professional knowledge through talking and thinking about daily work in classrooms. The teacher's theorizing about practice is systematic reconstruction of that
experience. The beginning teacher uses this personally constructed theory to understand subsequent practice.

What would a teacher educator need to know and be able to do in order to be effective in helping a beginning teacher learn to teach according to this view? It seems likely that the teacher educator would have to believe that professional knowledge is practical knowledge, that is, that it is context-dependent. He or she would also have to believe that teaching is a vocation. He or she would need to be aware of the way people reason about and solve practical problems. He or she would have to believe that persons may solve practical problems by reflecting upon them and would have to know about ways in that to help persons do this. The teacher educator would have to be able take a secondary or helping role. His or her problem is to guide rather than to direct learning.

This view of the relationship of theory and practice raises many questions. For example, what would such a teacher educator do about providing information about techniques or principles of teaching? Would it be necessary to wait until the student teacher recognized a need for certain information before providing it? How would a student teacher recognize such a need? Where would all of this take place? In university classrooms? In schools?

Fullan and Connelly (1987), in a report prepared for the Ontario ministry of education, advocate undergraduate teacher education that is based on the practical knowledge of teachers. Indeed, Connelly (1987) appear to advocate control of preservice teacher education by the profession. Fullan and Connelly (1987) state that practical knowledge and experience are the most important components of teacher education. In undergraduate teacher education at least, Fullan and Connelly talk as if they believe in the primacy of practice.
Inquiry.

Systematic inquiry into one's own practice and the practice of others in order to understand how best to conduct one's own teaching is the focus of this conception of the relationship of theory and practice in teacher education. Roberts and Russell (1975) said it in this way.

The first step in this process [translating systematic theoretical perspectives to the context of science education] involves the recognition of systematic work that may ultimately prove relevant to science education in some significant way. The studies below are all based on theoretical perspectives derived from philosophy. The sources are from informal analysis in the philosophy of science, a field whose significance is obvious; epistemology, again an area of clear significance to science education; metaphysics, the significance of that is demonstrated in the study we describe; and informal analysis of a variety of educational concepts, particularly the concept teaching, the significance of that we see especially in terms of its usefulness for teachers who wish to analyze and rethink their own approaches to teaching. The process of recognizing potentially relevant systematic work may seem highly intuitive. It is often slow, demanding, and full of blind alleys. Sensitive and successful experiences in educational settings can be an important aspect of preparation for the task' (p. 115).

Roberts and Russell suggest that it is important that teacher educators be able to recognize 'systematic work' that will be of value to them in their own teaching practice, and of value to the student teachers who work with them in teacher education programs. Roberts and Russell also suggest the use of several sets of principles that originate in the foundational disciplines to organize the experiences of teacher educators and student teachers. These principles include methods of informal analysis as practiced in the philosophy of science and principles derived from epistemology and from metaphysics. Teacher educators and teachers who are competent in these methods may use them to systematically understand their own practice. They will be able to identify problems of practice. They will also be able to identify theoretical perspectives that may assist them in dealing with these problems.

Practice is the setting for the 'sensitive and successful experience' that will enable teacher educators to learn analytic methods. The improvement of practice will be the result of the use of these methods. Although the authors recognized the apparently intuitive
nature of the recognition of "potentially relevant systematic work" they contend that both the methodological principles and the relevant systematic work will enrich practice as in Entwistle's (1979) conception of the relation of theory and practice.

The teacher educator's role is to incorporate these methods and principles into the conduct of the science education that they provide for student teachers. Science teacher educators must use the principles of logical analysis to identify the systematic work that is relevant to their own and their students' practice. They must teach future science teachers to think systematically about their own work. It seems likely that the student teacher is to learn to do this by applying the principles of systematic investigation to the practical experiences that would be part of the teacher education program.

Since the teacher educator will apply these philosophical skills and principles, the view of the relationship of theory and practice is instrumental, but in the 'artistic' rather than 'scientific' sense referred to by William James. The purpose of learning to use these principles and skills is to enrich one's understanding of practice and thus to improve practice, not to directly guide practice.

Zeichner (1986) gave us another example of an inquiry-based conception of the relationship of theory and practice in teacher education.

Finally, it becomes increasingly clear as a result of the analysis of the evidence related to all of these issues, that there is no one explanation that can account for the development of teaching perspectives and the degree of change or stability in these perspectives over a career. Although various generalizations can now be formulated on the basis of the available empirical literature regarding central tendencies in the development of teaching perspectives, the development of perspectives by individual teachers is greatly influenced by the predispositions, characteristics, and capabilities of teachers who differ from one another and the characteristics of the settings in which they work, settings that pose different constraints and opportunities for action. Research on the development of teaching perspectives must clearly pay more attention in the future to the uniqueness as well as the commonality in teacher development. The dominant practice of describing only central tendencies in the development of teaching perspectives cannot illuminate the diversity that unquestionably characterizes the socialization of teachers and the occupational group. A greater understanding of the socializing conditions of particular schools and of the ways in which individual teachers develop particular kinds of teaching perspectives is the key to understanding the most likely roads to strengthening and improving both teacher education and the quality of school programs (p. 157-158).
That Zeichner is using an 'inquiry' conception of the relationship of theory and practice is evidenced by his apparent belief that there is no one way, no one theory, that accounts for the way teachers develop what he calls teaching perspectives. Generalizations can and have been formulated to explain the development of teachers but teaching is so context dependent that no generalization can be directly applied to the solution of any one educational problem as it is faced by an individual teacher. Generalizations are useful as broad indications of the kinds of problems and the kinds of solutions that may work. Zeichner suggested that they may serve only as guides to the personal discovery of teaching perspective by individual teachers working in unique contexts.

Although 'unique' and 'illuminate' suggest a personal practical view of the relationship between theory and practice such as that of Clandinin, Zeichner's insistence on evidence and generalization as important parts of teacher education are quite different from the personal practical view of the way in that one learns to become a teacher. Zeichner wanted his student teachers to understand a variety of ways to view teaching practice. He also wanted to emphasize the unique knowledge of individual teachers, derived from practice, but formulated as a result of systematic and informed inquiry.

The 'inquiry' conception of the relationship of theory and practice emphasizes the primacy of practice but insists that theoretical principles be taught to student teachers so that they may use them to inform and interpret their own practice. Zeichner wished to help teachers construct theory from their own practice and from the theory derived from the practice of others as these forms of theory and practice interact in the work and scholarly life of the student teacher. Teachers are capable of understanding a variety of theoretical perspectives, whether personally discovered or shared with others. They are capable of using each of these perspectives to develop a unified understanding of their own work, and to develop personal professional competence.
Practice is primary, but theory has an important place in an inquiry conception of the relationship of theory and practice. Its use is the mark of the thoughtful and careful practitioner. Schon (1983) described the professional who works this way.

He gives up the rewards of unquestioned authority, the freedom to practice without challenge to his competence, the comfort of relative invulnerability, the gratification of difference (p. 299).

Erickson (1988) summarized the beliefs of persons who approach teacher education and research from this perspective.

we must not proceed along a path that leads in a direction that would indicate that all professional knowledge must be constructed by each practitioner in the isolation of his or her practice setting. Or, we must not move in a direction that assumes that the knowledge constructed by individual practitioners is not subject to external criticism because no one else is familiar with the context in that it was constructed. . . . The most interesting problems emerge as we seek to find a resolution to this tension between the personal and social influences on knowledge construction (p. 204-205).

Summary.

There are a variety of conceptions of the relationship of theory to practice that may be used while maintaining a belief in the primacy of practice. One may assume that proper action will always be the result of experience as do the naive inductivists. One may assume that helping individual teachers to understand the meanings that classroom events have for them will help those teachers to develop personal practical theories that will reveal themselves in more coherent and competent practice. One may assume that studying one's own practice and that of others in a systematic way, informed by knowledge of the theories that have been developed in education and in relevant sciences, will lead teachers to develop perspectives and competences that mark good practice.
Some teacher educators appear to believe that there is an ongoing interaction between theory and practice that precludes the primacy of either, they believe that ideas are constructed in social context, not the result of someone's discovery of an eternal verity.

This conception of the use and relationship of theory and practice in education does not stress the absolute primacy of theory or of practice. The experience of persons in society is of concern to these teacher educators. They are also concerned to understand the ongoing development of theory that influences experience and to improve that experience. Giroux (1988) provided an example of this conception. He wanted teachers to be what he called transformative intellectuals.

Theory and practice, reflection and action, exist in a dialectical relationship. Neither is caused, nor can be caused, by the other. Rather each is created and changed by the other in an ongoing and unending relationship. Teachers, and teacher educators, recognizing the role of both current theory and current practice in the ongoing creation of social realities such as power and powerlessness, may teach themselves and their students to recognize social realities and by recognizing them begin to act to change them. Lasley (1988) states these beliefs in another way.

By starting with a smaller set of prescriptions and principles, and then encouraging thoughtful, critical use of those skills in several contexts, preservice teachers can possess the requisite procedural and semantic knowledge and, more important, be in a better position to criticize new models as they are exposed to them as beginning professionals. (p. 3)

The teacher educators who use this conception of the relationship of theory and practice talk as if they believed that if teachers recognize the necessary and ongoing interaction between theory and practice that is a characteristic of all social life they will
also come to understand how they may act in order to change that social life in ways that will make it more just.

The Work of Teacher Educators

While the view of theory, practice, and relationship of theory and practice that should govern the daily work done by teacher educators is not often explicitly discussed in teacher education literature, there is evidence of concern about the way research should be used in the various forms of teacher education. For example, Russell (1984) asks questions about the way preservice and inservice teacher education expects its clients to use research.

At the center of my concern about processes of preservice and inservice education is the associated conceptualization of the role of the teacher in the use of research findings. Is the teacher expected to use the findings directly and uncritically? Alternatively, is the often limited research base made clear to teachers and are teachers involved directly and actively in exploring the advantages and the stresses that may arise in the course of modifying patterns of teaching that are, in most cases, already reasonably successful (p. 20).

Russell is asking about the conceptions of the roles of theorizing and of practice that should be used as the basis of good inservice or preservice teacher education.

Fullan (1988) frames the concern in another way.

The proper role of the university . . . especially the faculties of education. . . . for various reasons faculties have evolved a research role and for other reasons have ended up being distanced from the latest practice . . . The way to stay fresh, I suppose, and the way to spend one's time in faculty is not to do more and more teaching, although I want to put teaching in that relationship, but to go about the role in ways that will generate knowledge, provide training and support [for schools as they take part in teacher education] and foster an inquiry role (p. 175).

More commonly the question is "What, if any, theory should student teachers be taught?" When this question is asked 'theory' may be standing for a variety of conceptions of its nature. Theory may be conceptualized as subject matter, the results of sociological or psychological research, the results of empirical study of the practice of teachers, the result of personal reflection upon one's own practice, or the result of logical analysis.
When questions are asked about the work of teacher educators, researchers are likely to conduct studies that concentrate on faculties of education as institutions rather than studies of individual teacher educators. Wideen and Fullan (1983) and Hopkins (1985) studied Canadian faculties, Lanier (1981) and Wisniewski (1983) studied American faculties as places of work. In these studies the major concern was to understand how the context of teacher education as it exists in faculties of education determines the difficulty or ease of introducing program change.

Some teacher education literature (Finkelstein, 1982; Smith, 1983) specifically describes faculty reaction to the contexts of their work. These studies provide a picture of faculties of education that are fragmented, difficult to manage and change, and uncomfortable to work in.

Wideen and Fullan (1983) and Hopkins (1985) suggest that these difficulties exist because faculties of education have flat and diffuse organizational structures. Lanier and Little (1986) think that these difficulties exist because teacher educators are unable to adjust to university expectations. The work of Weber (1986) and Carter (1983) suggest that the problem may lie in the nature of the work teacher educators do.

Weber (1986) asks what meaning certain teacher educators gave to the experiences that their work entailed. She concludes that teacher educators are torn between a perceived need to preserve what they believe to have been good or useful in their own and others' teaching practice, and a need to introduce certain reforms into the practice of the teachers presently in classrooms in schools.

Weber reports that the teacher educators whom she studied work in a "culturally generative mode of being" and appear to derive personal and professional satisfaction and meaning from "protecting a legacy of pedagogical thought, theory, and action." She also notes that these teacher educators admit to their belief systems and their practice only the results of that research that confirms their own experience. They find it difficult, apparently, to think of their work in other than practical, experiential terms. Their reports
of their practice concentrate on methods that they characterize as student centered. This is consistent with belief in the contextual and personal nature of pedagogical knowledge. They also report that they are constrained to use some practices that they consider to be coercive and contrary to their espoused beliefs about the best ways in that to educate prospective teachers. This might be a reaction to perceived university wide demands that they work in a less context, or student, centered way.

Weber says that the teacher educators in her study were caught between a need to serve their students, (and the children those students will teach), and the demands of the professional culture of the university. "The teacher educator emerges in this study as both radical and conservative" (Weber, 1987, p. 25). These teacher educators seem caught between the demands of the university that they stress the generation and dissemination of theory and the demands of schools and teachers, or the teachers within themselves, that they stress practice and practical knowledge.

Carter (1984) presents another view of the way in that some teacher educators think about their work. Describing the results of an interview study of twenty-eight teacher educators in one American university, she reports that they believe their work consists of four major professional roles; transmitting professional skills, gatekeeping for the profession of teaching, codifying the basic knowledge upon that the teaching profession is based, and serving the profession. Three of these four are practical concerns. Only codifying basic knowledge is concerned with developing theory. These teacher educators do, as has been earlier noted, appear to assume that theoretical knowledge, especially skill knowledge, can be directly applied to practice.

Carter concludes that teacher educators do possess a body of knowledge that is different from that of their colleagues in schools. However, these teacher educators interpret the context of their work as one of conflict between their responsibilities as faculty members and their tasks in and for schools. They also believe they lack a codified body of knowledge to guide and justify their practice to themselves and to other members of the
university community. These, taken together with their belief, noted earlier in this chapter, that they have a body of skills that they can transmit to student teachers, it seems that the teacher educators studied by Carter are caught, as were those studied by Weber, between sets of beliefs that emphasize the importance of theory and sets of beliefs that emphasize the importance of practice.

It should be noted that neither Weber nor Carter has made a distinction between knowledge and belief. It seems clear that much of what they have called the knowledge of teachers would be better called belief. There is little evidence apparent in reports of their research of any attempt by teacher educators to justify or to provide evidence for what they state to be true about their work. Both groups of teacher educators apparently responded from experience rather than from reason and evidence.

The majority of studies of work in faculties of education tend to focus on the conditions of work or on analyses of the kinds of tasks and responsibilities that teacher educators are, and should be, called upon to perform. These studies describe places where conflict between views of theory and practice are inevitable and bitter.

**Conflicting Expectations**

Lanier (1981) discussed the responsibilities of members of faculties of education. She expressed the view that faculties are constituted to help societies deal with major problems as are all social institutions. These problems are constantly changing. Members of faculties of education must search for informed, ethical solutions, and must ground their solutions in verifiable research. Thus there is a continuously growing knowledge base and a continuous proliferation of systems for delivering this knowledge to the teaching profession. This knowledge is also necessary as a basis for the respect that teacher educators, as a profession, seek.
Lanier stated her belief that faculties of education have not carried out this mandate as carefully as they could. She explained this lack by outlining the history of American teacher education and explaining the conflicts that arise because of the internal structure of faculties of education. The economic and social conditions that framed North American teacher education have resulted in low financial investment (except in mid-twentieth century) and in a socially ambitious faculty and student body drawn from lower and middle income groups. After teacher education was transferred from teachers colleges and normal schools to universities many faculty of education members preferred to keep their distance from schools and thus from their own social origins. They wished often to leave behind the messy, complex world of schools and emulate the older and more respected disciplines and fields of study found in their new organizational homes. Faculties often accepted large undergraduate enrolments. Until recently there was always a market for their graduates.

Lanier (1981) posited that the problems arising from the attitudes espoused by the persons of lower socio-economic status entering the field of teacher education were further complicated by the informal structure that has evolved in most faculties of education. She described four levels of practice in a faculty of education. First, and most prestigious, are those faculty members doing basic research and teaching graduate students who will work in faculties of education. The second level in the hierarchy are those persons who do applied research and prepare future administrators for the higher levels of the extra-university educational systems. Third, there are those who occasionally teach undergraduates, but whose expertise is in a particular subject area or discipline. Finally, there are those who work with preservice teachers, carrying heavy teaching and supervision loads who do little research of any kind.

The effects of these firm divisions were obviously detrimental to the school's ability to respond effectively to the public's concern for improved elementary and secondary education. Prestige for the schools of education and the faculty in them was defined in terms of their distance from the problems of public schooling. Thus the work judged important by the public was judged unimportant by the schools of education. (Lanier, 1981, pp. 3-6).
Clifford and Guthrie (1988) addressed similar issues. They concluded, among other things, that

After eighty years or more of existence, the education professoriate should no longer be allowed the luxury of its "identity crisis," of its separation of academic training from clinical applications (p. 329).

and

The major mission of schools of education should be the enhancement of education through the preparation of educators, the study of the educative process, and the study of schooling as a social institution. . . . In order to accomplish their charter, however, schools of education must take the profession of education, not academia, as their reference (p. 349).

Lanier drew a picture of a profession, teacher education, divided and isolated, both within and between the institutions that are a part of its work. Clifford and Guthrie described the isolation and division as caused by an ongoing identity crisis, an inability to see clearly the purpose and nature of the proper activity of a faculty of education. These divisions may be symptomatic of a division within teacher education between those who work with theoretical knowledge and those whose work is practical and requires practical knowledge and a division between views of the nature of the theory and the practice that should concern the education professoriate.

There are many other examples of the concern. Wisniewski (1983) was particularly concerned with scholarship in such faculties, that he said ". . . approaches the condition of a national disgrace." He said that faculties are in the grip of a "depression mentality" (pp. 1-5). Smith (1983) said that there are three kinds of scholars in a faculty of education. There are scientists, who are concerned with research design and with the application of findings to teaching and learning. There are theorists, concerned with foundational issues, and finally, there are clinicians who want to help teachers gain skill. Smith hypothesized that the intellectual life of schools of education may be improved only by convincing all three to concentrate their energies on the professional training function. He may be right, but the literature reviewed for this study indicated that this may prove to be a very difficult
task. The views of the relationship of theory and practice held by each group may differ too widely.

It has been suggested that there is a hidden curriculum in faculties of education. This hidden curriculum is a result of faculty expectations and values, student expectations and the social context, mainly the norms and practices of the institutions of education faculties and universities. As a result reflective scholarship is very difficult. The demands of the routine processing of students, the rigid course and program structure, the pace of work, and governance procedures, to name but a few of the social constraints mitigate against it (Wisniewski, 1984). Crow (1987) agreed that there was a hidden curriculum but saw it as inculcating belief in the essential separation of theory and practice, and encouraging an uncritical assumption of the beliefs and values of existing educational and social communities. The 'hidden curriculum' explanation is another way to view the difficulty that teacher educators appear to have in reconciling the demands of those who believe in the primacy of theory and those who believe in the primacy of practice.

Barnett (1985) described similar conditions in British faculties of education. He argued that higher education generally faces a legitimation crisis. It lacks any systematic theoretical basis. Its emancipatory potential is further undermined, he said, by recent philosophical developments that question the very possibility of objective knowledge. It is undermined sociologically as universities become the tools for the extension of the technological aims of governments. Barnett appears to be concerned that the demands of schools, and government, for a technical view of education might overwhelm the universities' rational, theoretical function.

A major Canadian study (Fullan, Wideen and Eastabrook, 1983) of the organizational climate of a group of anglophone Canadian universities concluded that faculties of education are very different organizations from schools. They are pluralistic. Individual faculty have more autonomy than teachers. The decision making procedures are less hierarchical than they are in schools. Diversity is encouraged, few faculty know the
work of others or collaborate extensively with other faculty members. The norm of autonomy ensures few practical controls on what is taught or researched. Faculty meetings concentrate on boring day-to-day activities and decisions, policy issues are rarely effectively handled, consensus is difficult and requires a highly politicized and charismatic core group of faculty. Deans are managers rather than leaders, goals are amorphous, the process of implementation of new programs is difficult. Communication between members of these faculties is described as superficially friendly rather than concerned with professional issues (Hopkins, 1980). Faculty members feel vulnerable to external economic and demographic forces and to government intervention (Hopkins, 1980). Many of these characteristics, while cherished traditions of the university, run counter to the expectations that student teachers must be prepared to have of schools.

Finkelstein (1982) said that faculties of education are places where challenge, perplexity, moral and intellectual crisis abound. She described three typical faculty responses: a technicist response that retreats into scientism and mechanism, a mandarin response that retreats into traditional studies and inspirational exhortations, and a mediationist response that tries to reconcile the first two.

All of these examples can be understood in terms of differing views of the relationship of theory and practice in the work of teacher educators. A wide variety of beliefs about the knowledge and action of effective teacher educators are part of the work world of teacher educators. The knowledge required of teacher educators ranges from, and may include all or some of: knowledge of the principles of several social sciences, philosophy and subject disciplines, practical knowledge of schools, how children and adults learn, how classrooms may be managed, and how adults may be helped to reflect and to interpret, and knowledge of a variety of 'proper' relationships between the two.

With regard to their own practice, teacher educators are expected to fill a variety of roles: from subject matter master and scholarly model to guide and facilitator in the learning and practice of specific theory or in the accomplishment of practical knowledge
through reflection and criticism, and from technician to dedicated follower of a way of life.
The images of an ideal teacher held by teacher educators cover the same range.

Teacher educators experience a series of conflicts in their work life. In order to clarify the nature of these conflicts so that they may be understood and perhaps resolved, a new way to think about the problem is needed. The descriptions of the work of teacher educators that have just been reviewed are useful but they fall short of providing all that is needed if one is to understand why faculties are as they are and how one might go about changing them. They provide little clear information about what it is that teacher educators believe that they know and are able to do although they do provide some direction for further research.

Curriculum literature provides ample evidence that effective change or even implementation of educational programs depends on a thorough understanding of the work life of those involved in those programs (Fullan, 1982). This seems as likely to be so in teacher education as it is in other educational institutions.

Conclusion

This chapter has reviewed literature to discover what teacher educators believe to be the knowledge and the practice that is most appropriate to their work. It has been argued that teacher educators hold a variety of beliefs about theory and practice and that these beliefs may be categorized as emphasizing the primacy of theory or the primacy of practice. A variety of subcategories of each main category of belief have been outlined. It has been argued that the contexts of teacher educators' work influence their beliefs about what they should and do know and that their beliefs about the nature of the theory and practice create conflicts in that work. It has been further argued that in order to understand why it has proved so difficult to change teacher education in this century it is necessary to know
about and to understand the beliefs that teacher educators hold about the knowledge and the practice that is, and that should be, central to their work.

The Methodological Framework of the Study

The assumption, basic to this study, that persons construct their own knowledge and belief in a social context that influences that construction, makes it important to discuss literature relative to doing research predicated on such assumptions. This type of research is done according to the assumptions of the second lens of Bruner's (1986) stereoscopic view of the way persons come to understand something. The researcher 'deconstructs' one or more specific examples or incidents to understand them. The notion that human life involves an ongoing construction of meaning and that each of us develops a set of personal constructions that are the result of a tension between individual biography and the social situations that confront us makes it possible to assume that if we understand these incidents we will be better able to understand other issues which involve the same tension. Meaning, it is assumed, is socially constructed in ways that are communicable to and shared, at the least, by all those who share a language, yet are unique, in some way, to each individual (Blumer, 1969, Schutz, 1967).

Construction of meaning takes place within, and as a result of, the interactions that constitute life within the society and institutions of which each individual is a part. Each person's view of the nature of his or her work is thus constructed on what was learned from others and experienced in life to date, and the interpretation of that learning through the experience that is brought to it. These statements are not intended as a comment on the ultimate reality or non-reality of the physical and social world. They provide a methodological framework, intended to serve as a guide to data collection and interpretation.

Descriptions resulting from research conducted within this framework are open to empirical verification. The purpose of making explicit such a framework is to make clear
the assumptions underlying the study. A key question that arises as a result of this framework is "How can we come to know about the views held by others?" The answer lies in the assumption of intersubjectivity that is part of the framework. We recognize that as persons we live with others who are similar in many ways. This is the main 'typification' that we construct about the society in that we live. Thus we share with others major assumptions about society as a result of shared experience, knowledge and belief. We see and define the world we live in as beings situated in a society and as well as from our own perspective upon that society (Natanson, 1967). Others living in a social context can verify, or show the faults in, any one view of it by comparing it to their own experience. This also makes it possible for us to enhance our own understanding by sharing in the experience and understanding of others.

Another key concept that is embedded in this framework is a definition of action as planned and self-consciously carried out toward a goal. One may act by commission and by omission. There are two kinds of motives for action. One may act in reference to motives that arise from past experience and from motives that refer to the future. The actor is unaware of the first kind of motive while acting, but may see it in retrospect. The second kind of motive results in planning, therefore a person is aware of it while carrying out the action (Schutz, 1967). This means that understanding our experience retrospectively, as a result of reflection or of research, will enable us to plan more effectively. Therefore a research method which enables us to understand the experience of others and of ourselves contributes to our knowledge of the work we do and our ability to plan to do it better.

The task of the social researcher is to describe and interpret the actions and words of those being studied. The researcher views these actions and words as "social phenomena" (Hammersley and Atkinson, 1983, p. 107). The researcher is able to do this in the same way that anyone interprets society, through the development of typifications or categories that organize what he or she sees and experiences while engaged in the research.
The researcher must also be concerned with other, related, forms of interpretive understanding. In addition to the common sense notion of understanding the researcher is concerned to understand epistemologically (issues of knowledge and belief about the society under study) and to understand in the sense of method, that leads to a form of explanation. The subjects of the study of social scientists, unlike those of the natural scientist as far as we know, invest their own actions and interactions with meanings. Thus the social scientist must be concerned to discern and interpret, according to the rules established by the research framework chosen, these interpretations as well as his or her own.

It is clear that the social scientist must be as concerned as the natural scientist with issues of credibility and adequacy of interpretations of data. This means that both the rendering of the interpretations of subjects and of the scientist's own interpretations must be verifiable. The social scientist should be committed to questioning matters that common-sense takes for granted. In doing this the researcher has also become committed to viewing as objectively as possible what others view subjectively. The researcher consciously abstracts patterns and models that are then subject of the criterion of logical consistency (that they be internally consistent) and the criterion of adequacy (that "they would be understandable to the actor himself as well as to his fellow-men in terms of common-sense interpretation of everyday life" (Schutz, 1976, p. 64).

Because this kind of research takes place in natural settings that are unique combinations of characteristics, and because it is used to describe human behaviour that is never static, the traditional criterion of replicability cannot be applied (LeCompte and Goetz, 1982). To ensure the plausibility of description and interpretation researchers must make as clear as possible the effects of such things as status of the researcher, choice of participants, choice of social settings and of interpretive constructs on the results of the study.

What LeCompte and Goetz (1982) call internal reliability may be increased if multiple data sources are used or more than one researcher is involved. It may also be
increased by submitting results and interpretation to those who participated and to others who know the context of the research. If they agree with the picture presented the study is to be considered reliable.

Researchers using these methods, often called qualitative or ethnographic, must use descriptive words and phrases that are low in inference and be aware of the values that may be implicit in any of the language that is used in description and interpretation (LeCompte and Goetz, 1982). This means that the writing of the report of the study must be carefully done. The writer must be aware of the value loaded nature of the language used to describe and interpret the results of the study.

It is not altogether fanciful to suggest that the act of 'interpretation' in interpretive sociology is as much an act of writing, of the organization of sociological texts, as it is a matter of cognitive processes of understanding (Hammersley and Atkinson, 1983, pp. 207-209).

The main difference between this view of research and those from that it is often criticized, is that in this view empirical observation is considered to include not only what the researcher discovers but also the reactions of those being observed. All of the work of the researcher must be constantly subjected to question and to self-criticism.

General Conclusion

This chapter describes a review of literature that suggested a need to study the concepts and conceptions used by teacher educators to talk about what they know (and should know) and what they are (and should be) able to do.

Teacher educators use a variety of conceptions about the relationship between knowledge and action or between the theory and the practice that should be the basis of effective teacher education. It has been argued that this variety of conceptions, held uncritically, may lead to conflict and to confusion about effective teacher education programs and practice and that descriptions which will clarify those conceptions will be of help in the improvement of teacher education. Literature supporting an assumption that
persons construct as well as receive the roles they take in educational institutions has been included to provide a basis for the assumption that people do construct conceptions as well as a basis for the use of an interpretive ethnographic method. Literature supporting and explaining the use of qualitative research methods of the type used in this study has also been reviewed.
CHAPTER THREE - METHOD

This chapter provides an overview of the methods by which the beliefs of certain members of a specific faculty of education were described and interpreted. Methods sometimes called qualitative were used to carry out this study. These research methods follow the second of the paths which Bruner (1986) described. Their use indicates an approach to understanding which attempts to interpret specific incidents rather than to discover or apply general rules.

Qualitative research is characterized by research questions that are carefully formulated, and research methods that are carefully planned, yet change as needed in order to accurately describe the experience of the research participants. This means that general purpose and general methodology are carefully maintained while specific means are adapted as required. Throughout this study both questions and methods remain open to change, addition, refinement or repudiation as recommended by Hammersley and Atkinson (1983). The general purpose and the focus on the participants' views of the theory and the practice required of them in their work are maintained.

Qualitative researchers cannot avoid relying on 'common sense' knowledge nor having an effect on the social phenomena studied (Hammersley and Atkinson, 1983). This common sense knowledge and these effects provide information (about how those under study respond to the kind of audience they perceive the researcher to be) and a source of bias to be carefully watched.

It is assumed in this kind of research that the context of an action or statement is as important as the action or statement itself. The researcher is also a member of the context. The knowledge of the context that the researcher possesses, as a result of association with the participants in the context of the research, provides a means to discern patterns in data and a means to question apparent patterns. Hammersley and Atkinson (1983) state that:
social research takes the form of participant observation: it involves participating in the social world, in whatever role, and reflecting on the products of that participation. Irrespective of the method employed, it is not fundamentally different from other forms of practical everyday activity (pp. 16-17).

In this study the researcher's questions were considered part of data and the researcher's extensive experience of the faculty of education where the participants worked was acknowledged as a valuable source of interpretive insight as well as a source of bias to be carefully monitored.

The best design for any study is one that seems most likely to provide clear answers to the questions asked. The design of this study, a very open-ended interview method, combined with an intention to search the data obtained for interpretive patterns or frameworks proved useful in terms of providing answers to the questions asked.

Setting of the Study

A setting is a named context in which phenomena occur that might be studied from a variety of perspectives; a case is those phenomena seen from one particular theoretical position. Hammersley and Atkinson (1983) indicated that:

settings are not naturally occurring phenomena, they are constituted and maintained through cultural definition and social strategies (p. 43).

The setting for this study was a small faculty of education. Since the questions the study explored were about the beliefs of teacher educators, the faculty chosen was one that had declared itself particularly interested in the design and implementation of preservice teacher education programs that specifically attempt to assist student teachers to learn certain theories and to practice them successfully. The theoretical positions from which this setting were viewed have already been discussed.

A 1984 report of the university where the participants work provides the following profile of the faculty: sixty-three academic faculty, of whom 53 were full-time; more than two-thirds had doctorates; 20 held American or other citizenship, 10 were landed immigrants; 15 full professors, of whom one was female, 29 associate professors, of whom
7 were female, 9 assistant professors, of whom 5 were female; 32 over 50 years of age, 14 in their 40's and none were under 36.

This faculty has a standard range of subject areas with the inclusion of an area devoted to the foundations of instruction.

The members of this faculty have frequently declared their adherence to a set of principles which include the importance of undergraduate teacher preparation, the necessity of careful integration of theory and practice in the education of teachers and the importance of a close relationship between the faculty and the schools it serves.

Who is a Teacher Educator?

This study describes the beliefs of a group of teacher educators about the knowledge and the practice they need to work well with undergraduate student teachers. Lanier and Little (1986) noted the great difficulty that is faced by persons who would identify the population of teacher educators. Are teacher educators persons who work with preservice teachers, with teachers in inservice programs? Are teacher educators members of faculties of education, or are all of those in the university who have contact with student teachers teacher educators? Are the teachers in schools who work with student teachers during practica teacher educators? All of these persons can, with reason, be called teacher educators.

In this study only those teacher educators who work with preservice teachers in a faculty of education are studied. Lanier and Little (1986) define this teacher education population as:

those persons officially responsible for the design and delivery of the formal instructional program required of those seeking certification for the elementary or secondary teaching (p. 528).

In this study a teacher educator is someone who fits the Lanier and Little definition and works in a faculty of education.
Data Collection

Twenty-five teacher educators were interviewed. These participants were chosen, not to represent in any precise way the demographic distribution of faculty, but to enhance the possibility of including the widest possible set of beliefs in this description of these teacher educators' beliefs about their work. Participants were chosen to ensure that at least one person from each decade in age, teaching rank, gender, work experience category and educational background category was included in the study. Documents that described the programs of this faculty of education, documents that outlined evaluations of programs, and documents written by the faculty interviewed were collected. Interviews were conducted in the offices of the faculty being interviewed. Twenty-three of the twenty-five interviews were conducted between September and November of 1987. Two interviews were conducted in June of 1987 as pilot interviews. These were included in the data base of this study after returning the transcripts to the faculty members involved for comment. In the case of one of the pilot interviews, a further interview was conducted. One interview was conducted in French. Unfortunately that interview was one of two that were only minimally useful because voice reproduction on the tapes was poor.

The interviews were conducted using an open-ended interview protocol (Appendix A). Each interview began with a statement of the purpose of the interview, of promised confidentiality, and with a general question, "What do you know and what do you do that makes it possible for you to educate student teachers well?". Participants were invited to ask for clarification. Most did. Clarification consisted of a statement which suggested that the researcher was interested in what knowledge and what practice the participant believed it was necessary for he or she to have and use as a teacher educator if he or she were to be pleased with a former student when visiting his or her classroom some years in the future. The remainder of interview questions consisted of requests for examples, for sources of knowledge and practice, and for explanations as appropriate responses to participants'
talk. Little active questioning was required in most cases. Participants talked freely and interviews took the character of enjoyable collegial discussions in all cases.

The interviews were transcribed. Four hundred to one thousand lines of transcript per interview resulted. This represented, collectively, more than 50 hours of taped interviews. To check the accuracy of initial transcription three transcripts were returned to the interviewees for written comment and reaction. They were accepted by the interviewees as being the transcripts of their interviews. Later, four different interviews were returned to interviewees, accompanied by a summary of the beliefs that the researcher believed to be contained in the interview. Although added or clarifying statements were returned to the researcher, all of these persons agreed that the summary sheets represented their beliefs. This procedure also enabled the researcher to assess the initial data reduction procedures. When data reduction was complete, categories of beliefs related to the theory and the practice of teacher education were developed. To form the basis for a category, a belief had to be apparent in the interviews of at least three faculty members. A series of initial categories, formed as a result of the initial literature review categories and the first level of data reduction, were proposed and checked against the data. Some were confirmed, some rejected. When a set of categories, examples, and an analysis of these categories was completed after the second level of data reduction, these were returned to all those interviewed, and to five faculty members not originally included in the study, for comment. The participants were asked to comment on whether the categories and the analysis represented the beliefs held by members of this faculty. Many of these faculty members suggested additional interpretations, and were interested in discussing the frameworks further. All agreed that the categories and the interpretation were reasonable representations of beliefs held by members of this faculty.

During the interviews the researcher requested documents (either course outlines, handouts or articles and presentations written and given by the faculty member), if these were mentioned by the interviewee. These were used to check the plausibility of
interpretations and categorizations formed from the interview data. A field journal was kept during the initial data gathering. Some documents collected during the period of the literature review, observations and field journal were used as a source of questions in the interviews. All documents were used in analysis and as a source of confirmation or disconfirmation of interpretations.

In the fall of 1988 the researcher became a member of the faculty of the university where the participants in the study also worked. It became clear that to maintain a reasonable ethical position with regard to the study and to the duties of the researcher as a member of faculty, only data clearly present in the interviews or derived from documents could be considered as source material for the study. This became a main constraint of the study; however, membership in the faculty also enabled the researcher to broaden her perspective and to recognize patterns in the data that might otherwise have been missed. Whittaker (1986) describes a similar enrichment of perspective in a study of life in Hawaii. As her sojourn there lengthened and she became more aware of the perspective of the Hawaiian-born, and of their views of mainlanders, her interpretations changed and her understanding broadened.

Since the research reported here depends heavily on what are sometimes called 'insider' accounts, the nature of such accounts was considered. Insider accounts may be solicited or unsolicited. The accounts in this study were solicited. Thus it was important to consider the reasons respondents may have consented to give such accounts, and the possible interpretations that they may have placed on the activity of being interviewed. Hammersley and Atkinson (1983) warn persons using these research methods that respondents may react by 'telling the interviewer how it really is,' counteracting the perceived accounts of others or defending personal or institutional reputation.

Examples of all of these kinds of reactions to the activity of being interviewed are apparent in the transcribed interviews. Since such interpretations are inevitable, it is important that the researcher attempt to ascertain these interpretations and to consider
how this information can best be construed. The format for the interviews was indirect. Interviewees were asked to talk to the interviewer about what they needed to know and to be able to do to be effective teacher educators. The criterion for effectiveness suggested by the interviewer was a positive reaction to what they might see if they were in the classroom of a graduate teacher with whom they had worked. Questions that asked the respondent to explain or to defend his or her view were frequently used during the course of most interviews. These included invitations to say more about why the interviewee believed a certain thing; invitations to explain why a certain process, procedure or knowledge, described by the interviewee as necessary or useful, might be necessary or useful; and of requests for explanations of how one might carry out a certain type of class, program or method. In this way as broad a selection of each teacher educator's views as was possible to attain in one long interview was sought. This provided a source of cross-checks within each interview as well as between interviews.

**Interpretation**

In the interpretation of these data the truth or falsity of the beliefs held by faculty members was not at issue. Rather these beliefs were viewed "as social phenomena." Hammersley and Atkinson (1983) suggested that this enables the researcher to use the participants accounts of their beliefs as "both resource and topic."

There are two ways to interpret accounts (including those of the researcher). They may be used as information about the matters described. They also tell us about the beliefs and worldviews of those who are doing the describing. The interviews conducted for this study contain information about the conduct of teacher education at the university where the study was conducted. They are also descriptive of the beliefs about the theory and the practice of teacher education held by those who were interviewed. These beliefs appear as clear statements and are implied in the conceptual language used to discuss the
theory and the practice of teacher education. The classes and the programs the teacher educators describe or criticize are visible forms of their beliefs about the ways one comes to be a teacher and the ways one ought to help someone become a teacher.

Interpretation was an ongoing process in this study. It began in the literature review and was conducted continuously as categories of belief were created, refined and rejected. However, certain principles and procedures were followed throughout. These procedures were based on the fundamental assumption that research is a reflexive activity. Several principles of interpretation follow from this stance.

Interpretation was progressively focussed. This entailed several things. The problem the study addresses became progressively clearer as analysis continued. To expedite the development of categories, what Blumer (1954) called sensitizing concepts were posited. These were concepts that arose in the talk of participants, and in the reaction of the researcher to data. They were not necessarily drawn from any well-developed theory but were used as referents to order the data or to describe the order that appeared to be used by those interviewed to order their own experience. The development of these concepts was begun in the literature review. One such sensitizing concept, development, was apparent as a central belief through all phases of interpretation. Others concepts, such as 'the theory-practice gap', were discarded early in the interpretive process. Once these concepts had been identified, units of data were systematically compared to them. Thus the structure of each concept was elaborated.

Sensitizing concepts that proved to be superficial or misleading were deleted and new sensitizing concepts were developed. Eventually models or sets of typologies emerged. Analysis of data related to teacher educators' beliefs about what they know was relatively straightforward. Analysis of data related to beliefs about what they should do proved to be very difficult. Prolonged use of the 'constant comparative' method described earlier was needed in order to see the patterns that were present in the interactions between data, the theoretical ideas derived from the literature review, and the common sense notions of the
researcher. In this regard, Lofland's (1976) member-identified categories and observer-identified categories were both used. Observer-identified categories in this study included a variety of descriptions a perceived dichotomy of belief about knowledge, theory and practice. Member-identified categories in this study included a variety of concepts of growth, development, and of means of achieving it, as well as two categories of teacher education methods, reductionist and wholist. These categories were initially determined from the data collected for this study, they then became categories for data analysis.

Since research is a social activity no procedure can completely compensate for any effect that the researcher may have on the results of the research. Therefore the role of the researcher is that of the major instrument of research. Data are not stable across contexts and the researcher plays a part in the shaping of the research. Thus data are not facts but a "field of inferences" in which patterns may be identified and their validity tested (Hammersley and Atkinson, 1983). The building of a field of inferences from a set of interviews is a complex construction of meaning on the part of the researcher. The result in this study is a kind of photograph, or perhaps a painting, of the beliefs about the theory and practice of teacher education held by 25 teacher educators. Like a photograph or a painting, its meaning is framed by the perspectives of its creator and open to interpretation by those who see it. Like a photograph or a painting, its validity and its value lie in the interplay between faithfulness to that portrayed and the presentation of an enhanced understanding which it makes available to those who see it.

In this context it is important to remember that the purpose of the collection and interpretation of data in this study was the description and interpretation of the beliefs of members of one faculty of education regarding the theory and the practice of effective teacher education. Theory development and/or testing was not intended nor was it attempted. All statements that attempt to discern reasons are of the 'as if' type. (Those persons who were interviewed spoke as if they believe such and so to be the case.)
Validity

Since the data gathered in qualitative studies are not facts but fields of inference, ensuring that interpretations are valid is not a straightforward matter. Several measures intended to increase the likelihood of a valid interpretation were taken in this study.

Statements of the researcher during interviews were treated as data and patterns of inference that might have influenced participants' responses were searched for. When it became clear that interviewees were assuming the full collegial participation of the researcher in the 'conversation' of the interview, steps to ensure that their trust was not violated were adopted. Field notes were curtailed to notes about possible interpretations. This was done with even greater care when the researcher became employed as a colleague of those interviewed.

All of the procedures of the study, as well as the emerging interpretations of data remained open to ongoing examination. Each procedure, each proposed category, each growing typology, was validated as completely as possible.

Denzin (1978) suggested the use of what he called theoretical triangulation in validating this kind of research. By this he meant that developing interpretations could often be facilitated by thinking about the data in the light of a number of possibly relevant theories. Lofland (1970) said that the researcher, if creditable and useful analysis are to be achieved, should:

assemble self-consciously all his materials on how a [problem] is dealt with by the persons under study . . . tease out the variations among his assembled range of instances of strategies . . . classify them into an articulate set of . . . types of strategies, and . . . present them to the reader in some orderly and preferably named and numbered manner (pp. 42-42).

This is a good description of what happened during the analysis phase of this study. A wide variety of theories, from sociology, philosophy and psychology, were superimposed upon these data. A variety of strategies presented by teacher educators who participated were also used as analytic categories.
Concepts and characteristics of concepts frequently used by the participants were identified and clarified as a result of constant comparison of data and the emerging concepts. Beliefs implied by the participants' use of these concepts, and beliefs explicitly stated, were identified and compared. Conclusions were carefully and continually checked, through scrutiny of both data files, and the original interviews and documents, to ensure construct validity. Reinterpretation and recategorization were frequently required. These analytic procedures are illustrated in Chapter Four.

Questions asking, in a variety of ways, for descriptions of specific events or beliefs were used as a part of the interviewing procedures to obtain as complete a sample of language as it reveals belief as was possible in one interview. This procedure also enabled the researcher to search the interview transcripts for a variety of ways any one belief might be stated so that emerging patterns and categories could be verified or discredited.

Teacher educators understand the role of research. The teacher educators interviewed in the study were aware of the likelihood of further publication of useful results of the study. Early concern that they might 'play to the crowd', understandably attempting to present themselves and their faculty in the most favorable possible light, was justified since in some interviews it was clear that the interviewee was trying to put a case for a specific form of teacher education, that form that he or she believed that this faculty does well. This is a strength of the method in this study. Persons who are trying to convince, marshall reasons for the adoption of their position. These reasons very often take the form of the expression of belief (Davidson, 1968). These reasons could also prove a weakness if the responses of individual participants had been taken at face value. Every attempt was made to ignore attempts at salesmanship and to understand the beliefs about theory and practice that such claims implied.

Another audience that may have concerned respondents was their colleagues on faculty who might read the final study. Concerns about possible adverse personal effects were undoubtedly present but seem, given the scope of interview data, to have had little
inhibiting effect on most respondents. Respondents reacted in a friendly and cooperative way to the study. No one declined to be interviewed. There were many expressions of ongoing interest in the study and in the questions raised by the study throughout the period of the writing of this document. Questions that were aimed at discovering the sources of belief were asked and willingly answered in interviews.

Studying familiar social settings presents special difficulties for the researcher. Becker (1971) described the "tremendous effort of will" with which he was able to see the college classrooms he studied as containing any other interaction than those he was used to seeing there. Spindler (1982) talked about "making the familiar strange" (p.24). He quoted Margaret Mead as saying "If a fish were to become an anthropologist, the last thing he would discover would be water." He recommended multiple data sources and a disciplined recapitulation, over and over again, of data. This, he said, continues to produce new insights as different experience and theoretical perspectives are brought to bear.

Data sources in this study were restricted to interviews, papers, and comments upon various stages of data reduction and interpretation. Data and interpretations of data were subjected to constant doubt and question over a period of four years of analysis and writing.

Descriptions were considered to be valid if it could be shown that the descriptions adequately matched the conditions that they purported to describe and did so in ways relevant to the questions that were the focus of the study. This meant answering the question "Would those living and working in the situation studied recognize the description as accurate?" Since participants, and certain other faculty members who read drafts, stated that they recognized the descriptions as accurately representing belief positions that they believed to be found in the faculty, this condition was considered to be met.

Qualitative researchers must be committed to self-reflection. This "disciplined subjectivity" should ensure that all phases of the study are subjected to evaluation and re-evaluation. Since the researcher is also a teacher educator actively involved in
implementing and in developing teacher education programs, self-reflection has been both more and less difficult than might have been expected. The pressure to accept belief without question and get on with the job has often conflicted with the researcher’s need to question everything. The constant necessity to return to the writing of this dissertation has been an often irritating but salutary exercise, one which has, on the whole, enriched and validated both activities.

Reliability

Because qualitative research occurs in natural settings, each a unique combination of characteristics, and because it is used to study ever-changing human social behavior, the traditional experimental and quasi-experimental criteria of replicability are not helpful to ethnographers (LeCompte & Goetz, 1982). This does not mean that it is not possible to assure reasonable description and interpretation. A major concern of qualitative research, and therefore of this study, is to make clear the effect on the results of the study of the status of the researcher, choices of participants, choices of social settings, and the contexts that constrain human interaction. Choices of interpretive constructs or models, and choice of methods of data collection and interpretation of data collected and interpretations made all are pertinent to this concern. Therefore all of these were considered as sources of data as well as problems to be aware of and, where possible, minimized.

What LeCompte and Goetz (1982) called internal reliability may be increased if the researcher is not working alone or if multiple data sources are included. Since the researcher was alone in this case, a wide variety of faculty were interviewed and each phase of data reduction and interpretation was subjected to careful question and scrutiny by the researcher and by some of those interviewed. The use of respondents to check that the accounts were consistent with their perceptions was an important check on reliability in this study.
Researchers using qualitative methods must search for and use descriptive words and phrases that are low in inference (LeCompte & Goetz, 1982), and be aware of the values that may be implicit in the language used in description and interpretation. Since the language of those interviewed was both highly inferential and often metaphoric, careful scrutiny of the inferences and the metaphors in a variety of contexts with and across interviews was used to attempt to ascertain the meaning that these inferential statements, examples and metaphors might have to those who used them. Since a major component of the interpretation of data was an attempt to understand the beliefs implied in the highly imprecise language used by these teacher educators to talk about their work this was particularly important in this study. The analysis and interpretation of data are described carefully and with due consideration for the connotative as well as the denotative value of the language used in Chapters Four and Five.

In summary, while this study is certainly not replicable in the sense used by quantitative researchers, it is reliable in that the description it provides of the beliefs of twenty-five teacher educators was recognized by them and by others of being a reasonable and useful one. This study is a description and interpretation of a particular set of data, done in full knowledge that the interpretation is the work of one researcher, and a researcher who knows the situation under study well, with all of the possibilities for understanding that are the strength of this kind of research. There is no intent to claim the analyses presented here are the only ones that it is possible to draw from these data. The lesser claim being made is that the interpretations presented are reasonable and were recognized as such by those who were interviewed.

Conclusion

This chapter has described the methods used in data gathering and analysis in this study. The major interpretive principle was that of constant reflection both upon data and
emerging interpretations and upon the beliefs and actions of the researcher as the study was carried out. Descriptions and interpretations of the beliefs about their work held by twenty-five teacher educators resulted.
CHAPTER FOUR - RESULTS

The teacher educators interviewed for this study were asked to talk about two issues: what knowledge do, or should, teacher educators have, and what is good or effective practice by teacher educators? In this chapter their discussions in response to these questions are described. The major concepts, and the conceptions of each concept these teacher educators used to talk about the knowledge and the practice that they believe to be fundamental to their work, are identified and described in this chapter. The beliefs they talked about and the beliefs which were implicit in descriptions of their work, of programs, of effective teaching, and of ideal teachers and teacher educators are identified and categorized.

The results of this study indicated that these teacher educators most commonly described their work using several conceptions of the concepts 'development' and 'growth'. These teacher educators were talking about the development of understanding and competence in the skills and practices of teaching as well as development of the knowledge needed to teach children about disciplines. The practice these teacher educators described most often was 'modelling', although 'reflection' and 'analysis' were also fairly frequently referred to. These teacher educators often used examples as they talked about their work. Descriptions of teacher educators' work included discussions of several dilemmas. They are categorized here as generally being dilemmas of choice between a reductionist view of the way teacher educators work and a wholist view of the teacher educator's role, dilemmas of choice between views of the relationship and nature of the theory and the practice of teacher education, dilemmas of choice between stances which emphasize one or the other of a variety of positions with regard to these views. The purpose of this chapter is to provide the reader with both parts of that stereoscopic view which Bruner (1986) found so useful.
The original categories, developed from general theory-practice literature, used to begin data analysis were: views of the knowledge or theory of teacher education, views of the practice of teacher education, views of the relationship between the two (theory-prime, practice-prime, and theory and practice as an ongoing interaction). Further categories developed from the data. They included: reductionist and wholist views of teacher education, development (as organic, as revelation, as a series of necessary steps), change (as transformation, as controlled, pragmatic), modelling (as demonstration, as professional role model, as learning model), reflection, and views of the ideal teacher educator.

What Teacher Educators Know: Student Teachers Grow or Develop

"What do you have to know to educate undergraduate student teachers well?" Most of the teacher educators who were interviewed used 'development', 'growth' or some metaphor that implied growth in their discussions of this question. The teacher educators talked as if they believed that persons learning to be teachers are developing or growing in some way as they experience their teacher education. The criterion most often cited as characteristic of a successful student teacher was demonstrated growth or development in some understandings and/or skills. Being able to work with students so that they would develop, or grow, was most frequently mentioned criterion for success as a teacher educator. Development and growth were often used interchangeably, although development appeared most frequently. Most of these teacher educators talked as if they believed that one learns to be a teacher by participating in a program or an experience that encourages development or growth. Student teachers who learn to be competent teachers have changed positively in understanding, in skill, or in intellectual attainments, over the course of their professional education.

what kinds of situations seem to enhance growth, what kinds of things may give us signs that learning is taking place? What kinds of situations stop growth? (K16, l. 287-292)
Well, I think that it [development] ideally moves from the scheme that the program has. To have the individual emerge as a competent, problem-solving, professional...that scheme is for the development of the individual and to help him or her develop those qualities. (K09, p. 14, l. 42-49)

seedlings sprouting, generating, growing, growing, growing. (K03, l. 95-100)

These teacher educators talk as if they believe that development and growth occur naturally but can be enhanced or encouraged by teacher educators. There are observable signs that tell these teacher educators that a student teacher is developing or growing into competence. The competent teacher emerges, or sprouts. Competence in teaching is generated, guided, developed. At least two senses of growing or developing are implied. Some uses of development and growth indicate that this process is conceived as internally controlled, or that growing is a characteristic of student teachers regardless of what teacher educators do. Other teacher educators talk about growing and developing as if the actions of teacher educators could guide growth in specific directions, that the growth and development of student teachers may be externally controlled. Regardless of that general sense of growth seems to be uppermost in these teacher educators' use of the concepts 'growth' and 'development', most of those interviewed for this study appeared to equate growth and development with expansion: of intellectual capacity, of knowledge, or of skill as a teacher.

Conceptions of Growth and Development

Development as if it were Organic

Some teacher educators talked about growth or development as if they were thinking of this as an organic process. Growth and development will be experienced by all students in a professional education program if all factors, or enough factors, that promote that development are present. The factors that cause growth are sometimes described as if they were inherent in the student teachers, sometimes as if they were inherent in the
programs of the faculty, sometimes as if the actions of the teacher educators were the
critical element. Persons using the organic conception of development most often imply
that the student teacher's inherent capacity for growth is the most important characteristic
of development or growth.

I think what we should try to do is to make students aware of the fact that there is a
possibility for their growth and let them go to it. . . . We have got to give them the
wherewithal of it. The things that they need that will help them grow. Then their
growth is really up to them. . . . I don't grow students. No, so I don't develop
students either. I give them some of the stuff that they need to grow (K13, 622- l.
626).

This teacher educator wants to help student teachers to become aware of their own
capacity for growth. The teacher educator does not control the growth, nor even determine
it as a gardener might--"I don't grow students"--the teacher educator simply ensures that
all of those things that are necessary for growth are made available to the student teacher.

Other teacher educators who use an 'organic' conception of development think of
student teachers as if they were plants and of teacher educators as if they were gardeners.
This form of the 'organic' conception stresses the control that the gardener should have
over the development of a healthy plant.

Being new, I was so caught up in the bureaucratic structure, that clouded the whole
notion of who the seedlings were and who was doing the watering and cultivating of
ideas. (K03, l. 127-129)

Maybe a very scientific gardener. Someone who has done a lot of measuring,
whether it's formal or informal, a lot of measuring is going on, a lot of intervention, a
lot of monitoring that I think most gardeners don't do. (K15, l. 662-681)

The second quotation suggests a more formal kind of 'organic' conception. This
teacher educator is a very scientific, very careful, gardener, who takes much more
responsibility for the resulting harvest of student teachers than is suggested by the teacher
educator who sees his or her role as simply to make sure that all the necessary ingredients
for growth are available to the student teacher.

The role of the teacher educator who uses any organic conception of development is
to ensure that the conditions considered necessary for development or growth are present,
in the teacher education program and in the actions of the teacher educator. Then, if the student teacher has, in his or her personal being, the necessary capacities, that student will become a teacher. Some of the 'ingredients' student teachers need to find in their environment if they are to develop include: "understand[ing] that it [developing into a teacher] is an individual process" on the part of teacher educators (K16, l. 270), teacher educators who are aware of their own ongoing development (K13, l. 622), provision of appropriate knowledge and skills and the opportunity to practice these in a controlled environment (K03, l. 327,) and models, persons who are acting in the way teachers ought to act (K24, l. 343-363). If these are present the student teacher will "emerge as a competent, problem-solving professional" (K09, p. 14, l. 45-46).

Those teacher educators who use an 'organic' conception of growth or development appear to believe that development is necessarily constrained by, and, in some forms of this conception, controlled by, the organism that is developing--the student teacher. Perhaps it might be more accurate to say that the amount or kind of development is controlled by the nature of the organism. The belief appears to be that student teachers are by nature inclined to growth as are all human beings. The kind of growth that will occur is influenced by the kind of environment the organism finds itself in. In short, these teacher educators differ in their conceptions of the role they should play in ensuring that the environment is a good one and in their conceptions of the nature of an environment conducive to the development of good teachers.

**Development as if it were a Revelation**

A second conception of development allows teacher educators to talk about a student teachers' growth or development as if it were a sudden change, a revelation or something like the inorganic growth of crystals. Development happens suddenly as does
the formation of a crystal when the necessary ingredients and environmental factors are present.

Well, I think, in terms of a student's development, that---let's take an analogy. You, as a graduate student, are trying to fathom this whole area of education research. . . . What is it that all of a sudden allows you a perspective, that you hadn't had before? (K10, p. 8, l. 1-6).

There is a threshold. There is that moment. I'm going back to that image of the little boy or girl struggling in the water. There is a moment when, all of a sudden, there is an opportunity. When the arms and legs, and all that, are keeping the head above water. All of a sudden they change to a swimming motion, a stroke. (K05, l. 293-299)

This sudden appearance of a new perspective, this threshold that is crossed, does not just happen. It is conceived of as the result of struggle, of being immersed in something until understanding appears. This conception of growth and development often emphasizes the personal and individual. Growth takes place in the individual and the individual's struggle brings it about.

All learning is an inner private process. That takes place whether the teacher teaches or the parents motivate. . . . The real action is an inner personal process, that you have to come to terms with yourself. If you have once gained the experience of finding that out, knowledge is power. (K04, p. 15, l. 38-45)

How do those teacher educators who use this conception of growth and development think about the group settings where most teacher education take place? Some teacher educators seem to believe that, although learning to be a teacher is an individual matter, there is some way that doing this learning in a group is helpful. The excitement of learning, of developing or growing, is catching, communicable, is enhanced when shared.

I think easier to acquire that way [in a group setting]. . . . Once one has tasted of that excitement then that's, it's happened. . . . It's a fairly enduring kind of trait, once it's developed, you know. And that's the one we want, before they get out of here with bachelor's degrees in education, teaching out there. (K04, p. 16, l. 48.- p. 17, l)

The 'revelatory' conception often defines growth and development as something that gets easier with each experience of revelation. This teacher educator seems to believe that one acquires a taste for growing and developing, a taste that, if acquired in undergraduate teacher education, will endure through a teaching career. Some participants appear to
believe that characteristics acquired in this growth become part of the teacher's character, or exist as knowledge of that the teacher might not be consciously aware.

His knowing and having gone through that exercise, [studying the educational writings of Plato] ... becomes a kind of tacit, subconscious knowledge. You take it for granted. The student is not always asking the question, why should we teach? He takes it for granted. ... But he knows that it is a civilizational activity. (K07, l. 389-422)

The revelation endures. It becomes a part of the teacher's worldview. It is as if some illumination has occurred in the learner's mind, a pattern suddenly becomes apparent, Eureka! happens.

This group of teacher educators talk as if growth and development are a sudden qualitative improvement in the condition of persons. This is usually an intellectual improvement, but attitudes and skills also improve.

The teacher educator's role in the growth or development of student teachers is sometimes described as if the teacher educator believes that the moment of understanding, the turning on of the light in the student teacher's eyes, comes about as a result of the student being guided through a rational process of information gathering, experience, and problem solving.

But that [learning the works of Plato] is not the primary purpose of this class. It is to bring about understanding. About the aims of education and schooling. That is a reflection, of course of what our understanding of reality is, our understanding of the nature of man is, our understanding of society, what we want to be like. (K07, l. 360-380)

If you know the difference before you understand statistical analysis and after, in terms of how you can interpret research, then you should be able to sort of see the light that might come on in the students' eyes when they realize that they can,-- break down to some degree,-- this complex process [teaching] and look at the components of it and see how each sort of fits together to make this complex act more rational and meaningful to them. But they come to a level of understanding, or some people would even say maturity, that allows them to turn around and attempt to bring other people to the same level of, or at least to a higher level of understanding (K10, p. 8,1. 1-9).

Other teacher educators who use this conception appear to believe that the revelation, the formation of the crystal, is the result of a kind of confrontation with oneself in the context of a group, all of whom are attempting to develop the same thing. The
teacher educator must facilitate the workings of this group, ensure that the student
teachers experience dilemmas that will lead to understanding, and thus to growth and
development.

It's both a personal thing [development] but it's also----I'm just going to add,
collective.(K05, l. 272-273)

The person cannot be the person without others . . . . That's right, it's very much
myself, of myself, to others. Myself alone. My self has to be in relation to others.
So I always want the element of----that will transfer itself to----the creation of self
with others. (K05, l. 279-287)

That moment, I think, is very important in language learning and I think that
happens in our classrooms, for our students. . . You all of a sudden realize it
works. Now you may not want to do it all of the time, but you realize, "Hey, I can do
it if I want it." (K05, l. 306-320)

The change may or may not be rational but it happens suddenly.

Summary

The teacher educators who use 'organic' or 'revelatory' conceptions of growth and
development appear to believe that the student teacher has ultimate control over his or her
own growth. That growth or development may be influenced or guided, with varying
degrees of faithfulness to a visualized end, but the student teacher's nature, abilities, and
degree of involvement in the matter determine the success of the educative process. The
teacher educator's role ranges from keeping a careful eye on the student to see when he or
she needs some gentle guidance, to ensuring that the student learns to think rationally or
to solve problems successfully. The visualized end, success, may be defined by student or
teacher educator. It may concern understanding of pedagogy, of children, or of disciplinary
content.

None of the users of 'organic' and 'revelatory' conceptions suggest that anyone can
be directly taught to be a teacher, although some do appear to believe that the success of
the educative process depends on the actions of teacher educators, on the kind of program
Development as Progress through a Set of Necessary Steps

Some teacher educators used a conception of development and growth that has much in common with stage theories of human learning. These teacher educators talk about the growth and development of student teachers as if they believed that a person must develop through identifiable stages in order to become a teacher. They also seem to believe that teacher education programs which ensure that student teachers follow steps resulting in the students' development of knowledge and skill in and about instruction can, and should, be developed. This curriculum content is usually described as derived from research on effective teaching and effective schools, although occasionally there is a hint that such a program might be derived from classical works, or great authors of great books.

The whole program is one of movement forward, that we can anticipate. There will be better information with respect to how people learn and therefore how one should teach. It is anticipated that there will be better information with respect to how people learn and therefore how one should teach. It is anticipated that more will be learned about developmental stages... and how one must adjust to that. (K09, p. 14, l. 24-31)

Most of the teacher educators who use the 'necessary steps' conception of development or growth appear to have faith in the likelihood that empirical research will continue to provide new and better information about how people learn and about how teachers learn to teach. These teacher educators seem to see their role as constantly gaining new information about competent teaching, and about learning to teach, and using this information to improve teacher education programs and their own practice.

The development... you know we look at cognitive development, skill development and ego development... I think there is a pretty good balance --- for that in our program. I'm convinced that one area of development can't surge ahead if somewhere else is lagging. (K25, l. 452-456)
This teacher educator talks as if he or she believes that good teacher education programs must be philosophically and operationally integrated. Student teachers must develop or grow in all areas of learning or they will not become competent teachers. These teacher educators sometimes say that both the program and the students are always developing.

The users of this conception of development or growth seem to believe that each student teacher can be evaluated with reference to his or her present stage of development in relation to a number of key kinds of knowledge and skill that research into teaching, or occasionally, accumulated wisdom indicates should be part of a good teacher education program.

But where are they on the developmental spectrum in terms of response to ______? (K15, l. 394-418)

Nevertheless, most of the teacher educators who use the 'necessary steps' conception of growth and development also recognize that the student teachers themselves are an important factor in the process.

Yes, but it is very much a growth and development thing. I can't take my students, except intellectually, beyond where they are. I can facilitate their development but I can intellectually take them far further. We know that stuff doesn't get into classrooms. (K15, l. 449-485)

Developmental theory means to me . . . that learning and knowing is a matter of personal construction for everybody and at all stages of life. . . . And part of that whole developmental theory, I think, has to do with much more than just the cognitive. (K12, l. 23-55)

Some teacher educators use the 'necessary steps' conception to talk about growth and development as if student teachers must create their own knowledge and skill as teachers. Other teacher educators assume that they have more control over the educative process.

Although student teachers are doing the developing, many of these teacher educators appear to believe that the structure of the teacher education program is the central factor in determining the nature and direction of student growth.
The teacher educator is working with the student's development. It's developmental so the teacher educator has got to know it's developmental. They [teacher educators] have got to know it's developmental. They have got to know where they [student teachers] are when they start. What are the first conceptual ideas that need to be worked on? What kind of development of the individual, ego-wise, needs to be developed? That relates to attitudes and values and self concepts and ego development (K08, 1. 230-260).

Persons who hold beliefs about the learning of student teachers that suggest that student teachers must pass through definable and predictable stages of development appear to be influenced by cognitivist developmental theorists such as Piaget and Erickson as well as by some behaviourist psychological premises such as the effectiveness of response oriented training in inculcating certain behaviours and skills. They appear to believe that skill development and the development of appropriate professional attitudes occur in an ordered and predictable fashion. Student teachers pass through stages of intellectual and personal (or personality) development in understanding and becoming competent in the role of teacher. Interestingly, they also often seem to believe that student teachers can be directly shown how to do things in the best way possible. They believe that carefully controlled practice and carefully directed reflection on practice will help to ensure the development of competence. There seems to be some inherent contradiction here. The necessary steps appear to be both natural and artificially induced.

The Change That Takes Place in Student Teachers

When the teacher educators in this study talk about what they know about successful teacher education, they are often talking about the nature of the change that is happening to student teachers. Three categories of discussion about what is happening to student teachers can be distinguished in their use the 'organic', 'revelatory' and 'necessary steps' conceptions of development and growth. Some teacher educators appear to believe that student teachers must personally transform received knowledge, integrate it into their existing knowledge and belief. Other teacher educators believe that this change can be controlled, at least to some degree, by teacher educators and teacher education programs.
A third group are not sure what happens when student teachers learn. These teacher educators just know that student teachers do learn and that when they do they change. They have a pragmatic attitude toward programs and methods. It is also the case that these categories are not absolute in the interviews of all teacher educators. Some seem to believe that change takes place in one way with certain things student teachers learn and in another with other things.

Transformation

Some of the teacher educators talked about student teachers' growth as if it were a transformation. This use of this term in this study comes from learning theory. Transformation is that view of learning that involves the proposition that persons learn by actively processing information through a belief system in order to extract new meaning from it (Anderson, 1986). This transformation is personal but it can be environmentally encouraged. As we have seen, some teacher educators appear to believe that transformation occurs gradually, during long, and sometimes carefully tended, periods of growth. These teacher educators have been described as using an 'organic' conception of growth and development. Other teacher educators talk about the transformation that occurs when student teachers learn to teach well as a kind of revelation, illumination or as like the inorganic growth of a crystal.

Control

Some respondents appear to believe that it is possible to control the nature and direction of the change that student teachers go through when they learn to be competent teachers. Some believe that teacher educators must understand the nature of the change before they can control it. Others are not concerned to understand the nature of what is happening to student teachers beyond what they must know and do in order to control the
direction of the student teachers' growth or to control the final result. Teacher educators who have a 'control' orientation appear to believe that if the experience of the student teacher is carefully structured, in a variety of ways, the student will develop or grow into an effective teacher.

At least two views of program structures and teaching methods that may help students to transform themselves, or may serve to control the changes student teachers must achieve, are apparent in the data. These program descriptions imply a variety of beliefs. Some teacher educators advocate that the teacher education program be structured in accordance with stages derived from research on teaching.

We want to develop general kinds of students, who see themselves as continuing students of learning and teaching practice. Practise continual professional growth and development. What they do is based on what is known. There's an integration between the academic and professional competence as well as curriculum elements. (K11, l. 393-398)

The experience might also be structured by careful choice of content-- great ideas, great books, or carefully structured experience of rational thinking.

The primary concern here is knowledge, knowledge that spills forward to social, moral, health, and so on. The primary concern is knowledge and understanding and so they must know the subject they teach thoroughly . . . the more powerfully you know your subjects, the essence of the subject, the more you make it easy for your students. (K07, 343-350)

So you've got to come in with some leading, some insightful questions, that you can put to them. What you're trying to do, . . . several purposes, one of that is to get them, no matter how rudimentarily, . . . to get them thinking philosophically, to get them to realize that thinking philosophically isn't intimidating or isn't necessarily foreign to them. . . . many of the things that they are going to be dealing with are amenable to philosophical analysis. (K24, l. 169-176)

These teacher educators would structure education programs using disciplinary knowledge and the teaching of rational forms of thought. Their beliefs about teaching are summed up when one says:

It's not enough to have aims to achieve. You [student teacher] cannot achieve these aims unless you know where you started from (K07, l. 222-226).

The aims that this teacher educator was talking about were the aims that the teacher educator has determined, from his or her own education and experience, to be
important. The student teachers' knowledge and competence is not constructed from the history, experience and knowledge of the student teacher, but from the history of ideas.

Both of these sets of proposed program structures indicate belief that certain kinds of programs will ensure, with varying degrees of certainty, that student teachers will become the 'right' kind of teacher. What that 'right' kind of teacher is varies of course. The first quotation suggests a teacher who possesses certain proven instructional skills, the other suggests a teacher who possesses correct knowledge and a defined thinking capacity.

Those who see change as transformation emphasize personal understanding, as in private learning from experience or from rational discussions in university classes or in practical exercises such as microteaching. Those who see change as controllable emphasize the duty of the teacher educator to ensure that the student teacher learns what all good teachers must know. The knowledge to be learned may be derived from empirical research or from the wisdom of great thinkers, past and present or from careful, rational deliberation upon experience in light of that wisdom. The programs which they advocate emphasize process. The process, however, may be of very different kinds. It might be a very rational or a very personal, almost magical process. It might be anything between.

**Pragmatism**

People who take a what is called, in this study, a pragmatic view of the way student teachers learn hesitate to emphasize either the student's or the teacher educator's control over what is learned. They are not primarily interested in understanding the process through which student teachers go through. Perhaps they believe that they will only learn about this process through trial and error. They are primarily concerned with results, with getting the job done, with producing teachers which fill the stated needs of the schools. Many of these persons talk as if they could discern some practical or operational gap that must be bridged in the education of student teachers. Some of these teacher educators do
not seem to have any definite idea about what is happening when student teachers develop or grow into competent teachers. They will accept any explanation that seems to make sense at the time and continue to use it and the methods that accompany it as long as they appear to work. They will encourage, or help, or ensure that student teachers close the gap between beginner and expert in any way that seems to have some chance of success.

Whether the methods were developed theoretically or in practice, in schools or in the university, by teacher educators or by teachers, is of little immediate importance. Some of these persons seem to be taking a naive deductionist or a naive inductionist view of the relationship of theory and practice, as these were described in Chapter Two. Sometimes this way of trying to understand and promote change in student teachers seems to be a version of the view that theory and practice are related in an ongoing, or dialectic, interaction. These teacher educators seem not to see the sense in adopting any one position completely. They expect that methods and theory will grow and change. Some of them accept the importance of context and of students' personal experience before they come to teacher education and during their professional programs.

If they're not integrating it they're not making a connection between cooperative learning, for example, and controversial issues and Science and controversial issues and Social Studies----If there isn't that kind of integration occurring , . . . then they are being socialized on the one hand by the curriculum, the traditional curriculum in schools, . . . and particularly at the high school level, . . . and at the elementary as well. An example: a whole language approach. It seems to be that the language arts people here subscribe almost unanimously to the whole language approach. Yet we constantly hear from advisors [faculty] who go into the classroom and find the basal approach, the worksheets, phonetics. (K19, I. 123-134)

Others do not seem concerned with context at all, or only with the context presented by the teachers' job in the schools.

There were few teacher educators in this study who appeared to espouse a completely pragmatic view of teacher education. Many of those who talked about teacher education pragmatically, also used the language of the 'necessary steps' conception to talk about the methods of teacher education. This may be due to the readiness of others who
use this conception to develop programs based on presently available research and their
expectation that new and better research could become available at any time (K09).

There is interesting juxtaposition of the personal practical knowledge view and the
necessary steps view that occurs in some transcripts. The strong field experience
orientation of those in this faculty who use a necessary steps conception may be a factor
(K25). Some teacher educators appear to be expressing a belief that teaching knowledge
grows through experience only, but that a combination of interpretation of experience and
faithful practice of carefully taught skills will add up to the most effective practical
knowledge for student teachers.

I suspect as long as they start to know something and then try to teach it, they'll
come back and want to know more about it and try to teach it and then they'll try to
teach it, change their teaching, and I'm sure it's cyclical. (K08, 1. 201-205)

None of the teacher educators who were interviewed for this study represents a
'pure' example of any one view of what is happening when student teachers learn to teach,
nor of one conception of development and growth. Each interview may be characterized as
displaying predominantly one view of, or stance toward, development or growth, and
predominantly one set of beliefs about the way in that growth or development occurs in
student teachers. It was not, however, uncommon to find a combination of views, or what
appears to be a transition from one belief stance to another, in any one interview.

Summary

The teacher educators interviewed for this study were able to describe what they
believed to be the knowledge that teacher educators should possess if they are to do a good
job of educating preservice teachers. This knowledge was varied, yet shared some common
characteristics, notably a belief that student teachers must grow or develop into teachers
and that teacher educators must devise curricula that are capable of ensuring or of
encouraging that development or growth.
The discussions of these teacher educators in response to the question "what do you do, or what should you do, to be a successful teacher educator?" were much less straightforward, much more difficult to categorize, than their discussions of their knowledge. The beliefs which they imply or state are more confused, less clearly apparent. There is more evidence of conflict between beliefs.

The concepts and conceptions used to describe methods of teacher education are much less clearly different from one another than those that refer to the knowledge of teacher educators. One concept, modelling, is quite common, and is used in a variety of conceptions. Several conceptions of 'reflection' can also be inferred from the data.

Two general characteristics were apparent in these teacher educators' discussions of the methods they use when working with preservice teachers. Many of the teacher educators expressed the opinion that two distinct groups of ideas about the methods and about the curricular content of good teacher education exist in the faculty. There are a variety of descriptions of these groups in the data.

You see there is a long standing debate here, I guess on whether or not our knowledge of methodology (knowing how) is based primarily, or extensively, on psychological knowledge or whether or not it is epistemologically based. Whether or not we, by studying the nature of mathematics itself, we determine or discover or find out or deduce the methods that we should use to teach mathematics to younger people. (K24, 1. 90-96)

Edgar Stones has suggested that we use the word principles instead of skills because that word has a negative connotation—low level, training and has no cognitive content. That's [nonsense] of course. I mean that there are skills that have no cognitive content. That's elitist talk again. Skills are low level, craft, and only for people at [technical] institutes... There are some principles and instead of calling them a skill call them an application of a principle. Much of what we do may not be what the typical vocational technical person calls a skill, like how do you introduce a lesson, or provide set and closure. It's really a principle that a lesson has to have some introductory aspect. (K08, 1. 264-285)

These apparent dichotomies, between psychological and epistemological foundations for methods, or between language perceived to be technical and language that is defined as
academic appear frequently in these teacher educators' discussions of teacher education methods.

Although the teacher educators who participated in this study were able to make general statements about the knowledge that teacher educators should have and about good teacher education, many seemed to have difficulty making statements of principle or suggesting rules that should be followed when conducting teacher education. Most of their discussions of method were heavily reliant on examples to make points about the methods of teacher education.

I mean take my own field of ------, assuming I have some moderate knowledge of ----, the content and so on, when I go into the classroom, of course one cannot just simply go straight in and do one's ------. Rather one has to (I don't know how to put this in words) I mean if someone said to me, how do you teach ------, I'm not sure I could say how. I am not sure that I could describe it. (K24, 1. 41-51)

[. . . not likely to be afraid of you and afraid to tell the truth, I mean how do you make that part work?] Well, you demonstrate, for instance, what I tried to do but I screwed up. It didn't come off. But this is what I tried to do, you know, so that it's all right to make a mistake. And the student has to feel free to volunteer a thought, to ask a question so that the student can understand and also from watching what takes place, that they too as teachers need to be able to do that with their own students. (K21 1. 269-276)

This seems to indicate that teacher educators develop concept to use when discussing the methods of teacher education, in the manner that Medin and Smith (1984) called formation of concepts by exemplar. Many of the respondents seemed to be saying, in effect, "I don't know what the definition of a good teacher education method is but there goes one."

In the remainder of this chapter the concepts and conceptions used by teacher educators to discuss methods will be described, as will the beliefs implied in their discussions.
Methodological Conceptions and Beliefs

Modelling

Modelling is what most of these teacher educators call the methods they consider most essential to good teacher education. Modelling is seen variously as demonstration, as being an example of the kind of person a teacher should be or of the kind of professional a teacher should be, or as exemplifying the kind of learner a teacher should be. Many teacher educators clearly believe that modelling is more powerful than just telling. Student teachers learn much more, they learn more effectively, if their teacher educators model methods than if they are simply told about them. Sometimes modelling is advocated as the only viable way to teach a method of instruction or a way of being a teacher.

I have to adjust so that I can move them towards some level of function. . . I have to have, I think, skills that I can demonstrate. I have to be able to model, to put my money where my mouth is. (K10, p. 6, l. 6-p. 7, l. 1)

However, the appearance of modelling as the most important teacher education method may also indicate that these teacher educators recognize the difficulty in making rules about teaching methods. They may be saying that instructional method, because it is so difficult to describe or define, is most appropriately demonstrated.

I mean if someone said to me "How do you teach -------------. I'm not sure that I could say how. I am not sure that I could describe it. I much rather prefer to say why don't you come and watch me? (K24, l. 149-152).

Later this teacher educator said.

I think I used the word insightful. You've got to ask certain kinds of questions. (K24, l. 162-163)

This teacher educator also appears to believe that it is possible to help student teachers to learn to teach by asking them appropriate and sensitive questions (a belief shared by several of those who talked about the methods of teacher education). Although these teacher educators do not make an explicit connection between the questions they ask and their modelling of professional reflection, it is possible that an emphasis on the teacher
educator's ability to ask good questions is another recognition that instructional methods cannot be directly described in any way which will ensure that they will be learned. They can only be modelled well.

This possibility gains credibility when various conceptions of modelling are explored.

**Modelling as demonstration.**

Those teacher educators who use modelling as if it meant demonstration appear to believe that if student teachers are shown a technique, and consequently see their teacher educators using this technique, the students will be more likely to understand how to use the technique, and will more likely to make use of it themselves.

It is possible to demonstrate to the students the process of moving towards why I decided to use the particular approach I did with this kind of content. (K23, l. 160-162)

Well, I need to do it [model making choices of instructional strategies to suit content] in my own teaching because I think doing it in my own teaching becomes a demonstration for my students. The reason I want to unpack it [my own decision making] is because I want the students to know how to get to that intuitive stage. (K23, l. 190-195)

Modelling, as used in this conception, is showing student teachers techniques, processes, in order to help them see how the parts of these techniques and processes actually work in the practice of the teacher educator. These teacher educators appear to believe that if students are shown these things and are encouraged to discuss them, the student teachers will understand the techniques and practices and eventually be able to use them perhaps even without conscious planning. This is a good example of the blending of beliefs in personal experience as the only true way to learn and the efficacy of teaching student teachers something which they must then faithfully practice which was earlier discussed.
Modelling professional behaviours and attitudes.

Many of the participants talked of an obligation to act in ways in that they hoped their students would act, to model professional, correct, or good behaviours and attitudes for student teachers.

I think, well, we have been very poor models. Our faculty are very poor models and I am one of them. The program content is such a fake. [It] is so competitive. It’s locking doors on people. . . . There is no interrelatedness at all. There is certainly no time for integration or understanding. . . . There is nothing on process skills. They are talked about but they are never practiced. (K14, l. 214-220)

I’m counselling and I’m mentoring and I’m fostering certain kinds of attitudes and I’m modelling certain kinds of things but it isn’t platform skills. (K23, 35-37) [Implication is that platform or instructional skills are emphasized and other, more important skills, skills that are characteristic of the good as opposed to the effective teacher, are neglected.]

I could see then [when a student became defensive during a supervision conference] the importance of my own personal modelling, my own preparation, my own being sure to keep on track and give them the right content and be sure that they understand it. I don’t know. If I were to see them in their classes would I want them to model the way I do or—do what I say or what I do? I find that quite an overwhelming task and I’m sure all conscientious teachers do. (K25, l. 691-698)

These teacher educators want to model a wide variety of teaching behaviours and attitudes. They want to model ‘process’ skills, good preparation, conscientious attention to student needs, competent teaching, ‘staying on track’. It is hardly surprising that teacher education seems a methodologically confused and overwhelming task to many teacher educators if it includes the necessity to do such difficult and widely different things.

I think at the faculty level you have to have a very strong belief and attitude yourself, and be a role model. (K04 p. 14, l. 22-24)

The explicit recognition of the role of belief in determining method that is apparent here is not common in these data. Usually participants talked about what they should do as if doing it were simply a matter of getting to work, or of disciplining themselves. Some seemed very puzzled, others very self-critical of their own, and others, perceived failure to do so.
Modelling learning.

Some teacher educators talked about modelling as if it were the way to ensure that student teachers learned to become competent and lifelong students. This use of modelling implies a belief that if one knows how to learn, and values learning, good teaching will come naturally. It also implies belief that teacher educators can significantly affect the student teachers’ competence in, and desire to, be excellent academics.

I think if we set that example, more than anything else we will instill that kind of value system [that learning to teach is a lifelong matter]. (K04, p. 14, l. 22-24)

The other day, again, I heard --- talking about modelling methods. Well, I’d like to see somebody model learning rather than modelling methods. (K22, l. 22-23)

Summary of conceptions of modelling.

Modelling as these teacher educators use it, in all of the conceptions, is reminiscent of Schon’s (1983) discussions of the education of professionals. Educators of professionals must tell stories that will help students to understand their professional work. They must also act in such ways as to provide an ongoing example of someone engaged in that work.

You have to know different strategies and you have to be able to model them. You have to be able to, not tell about them but teach them, and then once you have taught them you have to say, look, look at what we did. How did we do this? So your teaching strategies have to be varied too. You have to have a variety of strategies and as a teacher educator you need to model those strategies. You should be able to model them, to be able to have them reflect and get them into the discussion. (K25, l. 259-269)

Schon and these teacher educators cannot tell us exactly how to teach someone to be a teacher, they can only tell us stories and recommend that we do the same. They are describing instructional methods rely on examples. They are forming their conceptions of teacher education methods by exemplar. They believe in the efficacy of modelling.
Reflection

The second concept that was fairly widely used by these teacher educators when they talked about the methods they used was usually called reflection. Most of these teacher educators wanted to encourage their students to reflect. Sometimes these teacher educators used words such as analyze, or question, but often they said 'reflect.'

Conceptions of reflection.

Use of the concept 'reflection' is very common in teacher education literature at present (Grimmett and Erickson, 1988). Typically, the word is used to mean 'to think about' or to consider the relationship of what is being learned to one's own developing teaching style. One participant put it this way.

You should be able to model them [teaching strategies], to be able to have them [student teachers] reflect and get them [student teachers] into the discussion [of the strategies] (K25, l. 269).

Three conceptions of reflection are apparent in these data. The first is the one seen above, reflection as 'thinking about' a teaching skill or strategy, probably in relation to one's own progress in acquiring it. The student teacher is expected to reflect on his or her performance of a teaching strategy by comparing it to the ideal version of the strategy taught in university classes. This is a conception of reflection which indicates a belief that it is possible to be objective when reflecting upon one's own performance. This teacher educator appears to believe that one can treat one's own experiences as if they were objective data.

The second conception is more personal and individual, more subjective. The student teacher is conceived of as internalizing or reconstructing knowledge through reflection.

Were they are able to take information, internalize it, and really apply it to their lives as teachers. (K03, l. 730)
One respondent, reacting to the more objectively oriented conception of reflection, defines her own position as more concerned with children than with teachers, unlike others in the faculty.

So in having a sequential set of [Instructional skills and strategies] that a teacher works on that assumes a whole bunch of contextual things as being steady. The students are reflecting, but they are reflecting on their own work much of the time. So that encourages a teacher-based approach to teaching. All of our measures are teacher centred. I see that as very serious. (K16, l. 42-54)

This teacher educator expresses his or her own belief that reflection, like all of the learning and developing done by student teachers, is context-dependent. The contexts upon which it depends are two-fold, the context of a classroom full of children and the context of the student teacher’s own life experience. The teacher educator is also concerned that the reflection encouraged by the teacher education program, the more objective conception, will encourage student teachers to be concerned with their own personal growth and too little concerned with children. This is an interesting belief. In further discussion, this teacher educator implied that to be concerned with oneself is not a proper way for a teacher to behave. This teacher educator and others also implied that good teachers and good teacher educators can and should be objective enough about themselves to keep separate their understanding of their own experience and their understanding of their work with children. They seemed to believe that the best way to do this is to refrain from encouraging student teachers to think about themselves in favor of inculcating a strong sense of duty toward children. This seems likely to be a dilemma.

Some teacher educators seem to use several or all of the conceptions. The following quotation is interesting because it is from the interview of a teacher educator who most often espoused the more ‘objective’ views of methods and curriculum, and who talked about development using the necessary steps conception.

Well, I fundamentally know that learning takes place within the mind and unless it’s personalized, it’s not going to take [become permanent] an awful lot. You know, all of us have taken so many classes where we have memorized what we think the professor wants us to memorize. . . . Part of what’s happening, too, is that we are
encouraging reflection and personalization. . . . I read it [a student's journal], I speak with the students about it. (K21, l. 302-319)

This teacher educator uses reflection as if it meant to internalize something in the form in which it was taught to them, to 'personalize' it. This is in accord with the more objective conception. However, the emphasis on 'what it means to them' is like the more subjective conception. While there is inadequate evidence to verify a speculation that this is an example of the conception of reflection in transition from one that emphasizes generalized rules to be learned to one that emphasizes context-dependent judgment, there is enough evidence to warrant speculation. Certainly it presents evidence that at least this teacher educator is capable of holding, at the same time, two beliefs which are at least potentially in conflict.

Both of these conceptions of reflection indicate a belief that practice is more important than theory in the preparation of student teachers. The first conception of reflection indicates, however, a belief that theory can be directly applied to practice, that theory is prime. The second conception of reflection indicates that practice is primary.

There is a third conception of reflection that may be said to exist. It is not exclusively objectively nor subjectively oriented. This conception equates reflection with analysis, or with critical analysis.

I think that what we are saying is that we don't want our teachers, our preservice young people, to go out and become teachers in the classroom and do everything from force of habit, from blind habit, or a knee jerk response. . . . We do want them to be able to size up situations and to think through what it is that would be the best thing to do with reasons in that sort of situation. (K24, l. 283-298)

This teacher educator wants student teachers to critically examine their own habits and the situations that they find in classrooms. Another respondent describes the matter slightly differently.

So I guess that what I'm trying to do is get teachers to analyze the teaching act as a research problem. . . . so that they can begin to look critically at what they are doing and improve, ultimately improve through this kind of analysis. (K10, p. 14, l. 3-8)
The student teachers are to be encouraged to see their profession as the exercise of rational problem-solving skills and capacities. They are to improve themselves 'scientifically' by reflection. Reflection is used as if it meant to consider the structure or nature of whatever one is studying, theoretical propositions, practical experiences, or personal reactions. A student teacher must learn ask him or herself the kinds of questions that will lead to planning and instruction that is in sympathy with the nature of what is being taught. This teacher educator appears to believe that it is possible, and useful, to subject one's own experience to rational examination, and that the result will be improvement in practice. This indicates a belief that theory and practice are related in such a way that theoretical understanding may be directly applied to practice, or perhaps that it automatically is.

Categories of Belief

Two general categories of belief about curricula and methods are evident in the responses of the teacher educators when they were asked to talk about what they needed to know and be able to do in their work with undergraduate student teachers. These create dilemmas for these teacher educators. One participant in the study had said about methods of teacher education:

you see, there is a long standing debate here, I guess, on whether or not our knowledge of methodology, knowing how, is based primarily, or largely, or extensively, on psychological knowledge or whether or not it is epistemologically based. (K24, 1. 90-100)

This participant believes that the different views of methods of teacher education that exist in the faculty can be ascribed to the use of psychology or of epistemology as the basis for methodological decisions. Although it is clear from these data that widely differing sets of belief about the nature and basis of methods do exist among those who participated in this study, it is not apparent that the teacher educators in this study consciously or necessarily based their work on belief systems that might be labelled as psychological or
epistemological. It is apparent that these teacher educators were fundamentally divided about the nature of the task that they, and their students, were called upon to carry out. Some perceived this task to be the development of what might be called intellectual competence through a variety of means, others perceived the task to be the development of competence in the use of instructional skills and strategies, still others saw the task as the development of professional judgment through another variety of means.

For the purposes of this study participants' perceptions of the nature of these differences are aggregated into two categories. Reductionist views, those that emphasize the generation of rules and principles that are applicable in all contexts, and wholist views, those that emphasize the development of judgment needed to teach appropriately in a variety of contexts.

Reductionism and Wholism

Although there are a variety of versions of the nature of the difference that most respondents recognize within the faculty apparent in these data, most participants assumed, although they did not necessarily discuss, the existence of two opposing views of method. 'Reductionist' teacher educators take the position that it is possible to determine what good teachers must be able to do. Once this is determined the task is to structure a teacher education program, develop teaching and teacher education methods following guidelines developed from this knowledge, that will ensure that graduates teach competently. There are at least two sub-categories of views held by those who talk as if questions of method in teacher education could be reduced to a structured set of knowledge and skill.

The first sub-category consists of those who want student teachers to be taught carefully organized courses containing discrete skills. Student teachers should practice each part faithfully, receive carefully objective feedback on their performance, and continue
to practice until their performance approximates the ideal that they were originally taught.

The content of this program, the skills and strategies that form its base, are determined from the research on effective teaching and on effective schooling. They are skills and strategies that are applicable to all kinds of teaching, to teaching all disciplinary knowledge.

there's the building of those skills [of teaching], . . . really what they are, they are the application of principles . . . Much of what we do may not be what the technical vocational person calls a skill. Like how do you introduce a lesson or how do you provide a set and closure. It's really a principle that a lesson needs to have some kind of an introductory aspect . . . the point is how do we get a person to learn to apply that. (K08, I. 279-299)

Another respondent sees the research which should be the basis of such a program slightly differently.

But a point of considerable discussion where we try to decide whether we are going to take what we know about research and what we know about [knowledge and competence in content area] development and what we know about how children learn and whether it's going to let that exist is dependent on what we do in the classroom or whether we are going to bring it into the classroom and transform some of the things we do (K16, I. 321-326).

For this respondent the choice is between those who allow the results of content area research into their own classrooms, and perhaps school classrooms, where it will transform learning and those who do not. The research that will form the content of the program and determine the methods to be taught to student teachers and used by teacher educators is not the general research into teaching and schooling but the research that is basic to teaching and learning in a specific content area. This respondent is convinced that this research, combined with the results of psychological research into the learning of children, will form the best basis for teacher education programs and methods.

The second subset of the reductionist view emphasizes quite different grounds of program and method. These respondents appear to believe that the teacher educator must make it possible, through directed reading and presentation, for student teachers to gather sufficient facts, principles and understandings in order that he or she may determine how best to teach. It is considered essential that student teachers be taught in such a way that they understand the structure of the disciplines that they will teach. They will learn the
disciplines well. They will, as a result, form certain habits of mind. They will be liberally educated persons who have well developed disciplinary knowledge and a sound moral sense.

With an understanding of the first two types of theory [normative and descriptive or conceptual] educators can plan activities. Then a valid question arises: What activities of students and teachers will be most effective in bringing about the learning intended? Theories are therefore developed on principles of teaching that can be applied to particular teaching-learning situations. (D6, 1987, p. 1)

Good teaching methods, for teachers and for teacher educators, are the result of sound disciplinary and moral education.

Field or practical teaching experience is seldom referred to by persons holding this version of the reductionist stance. It appears that they see practice as somehow essentially separated from what is learned about disciplinary knowledge, perhaps as a sort of apprenticeship in practical methods of classroom management. Practical experience is central to the first version of the reductionist stance. It is only in practice that use of the skills and strategies can be perfected.

As can be seen, some reductionist teacher educators would rely on empirical means, others on rational means, to determine the guidelines for teaching and teacher education. These guidelines or generalizations would then be applied to the solution of the problems of practice. The empiricists are often labelled by those who emphasize rational means as technical, mechanical or behaviourist. The rationalists are often seen by the empiricists as excessively traditional. Clearly these two groups see themselves as occupying opposing camps, yet both hold essentially reductionist premises.

A more complete dichotomy is that between a reductionist and a wholist approach to teacher education. The ‘wholist’ teacher educator is sometimes called idealist, or subjective by advocates and detractors. These teacher educators usually espouse methods that emphasize the personal growth of individuals, the importance of personal communication and personal relationships between teacher educators and student teachers, and the personal, experiential construction of knowledge, where the reductionist
emphasized one or another form of the necessary content or process of teacher education. These teacher educators variously describe their methods as learner centred, or creative, or ecological.

As much as there is excitement in learning and there is reason for learning, you can give kids all the bits and pieces we like, but unless they can put those bits and pieces together for themselves in a way that has meaning for them we are not doing the best we can for them. If we feel we can give them all the answers, I think we are wrong. It seems to me that any time you are in a professional school you run the risk of becoming a technician. I think that is a mistake. (K13, 1. 421-430)

This teacher educator expresses a basic wholist methodological stance. Teacher educators' methods should enhance students' ability to learn and to understand. They should recognize that students need to discover, to construct knowledge, if they are to become competent teachers. This teacher educator also expresses many wholist teacher educators' views of reductionist methods.

when we are talking about generic skills we are talking about what the teacher can do in this situation, and so we find ourselves using a teacher based approach to teaching rather than studying the children and seeing what is demanded in terms of teacher intervention. (K16, 1. 42-54)

Teacher education methods must be child centred, never controlled by, nor oriented to the needs or agenda of teacher educators or of teachers. Teacher education methods that encourage student teachers to take their own competence and development seriously are suspect for fear that they may encourage the student teacher to believe that his or her growth is more important than that of the children he or she will teach. This teacher educator is stating a basic normative position, children are more important than teachers. This belief is echoed in a number of the interviews conducted for this study. It is offered in support of a wide variety of programs and methods, but usually in opposition to a too serious consideration of the student teacher as student of the science or the technique of teaching. This seems to indicate the existence of a quandary for many teacher educators, who by reason of being teachers believe that their most important duty is to ensure that children receive good education and by reason of their jobs must ensure that the adults who are learning to be teachers receive a good education. The difficulty lies in the
determination of just what is a good education for someone who is intended to teach children in a school. This difficulty seems surprisingly difficult to resolve. Those who resolve it by determining to educate teachers well in the skills, strategies, and concepts related to what might be called pedagogy as a first priority are often identified with the necessary steps conception of teacher development and often seen as excessively technical and mechanistic. Others seem unable to resolve the conundrum in any one direction but remain vaguely in favor of children first and disturbed by those who apparently are not. Still others resolve it in favor of a variety of programs that are structured yet child centred or that concentrate on ensuring that the student teacher is what might be called a liberally educated person. The basic difficulty may be that these student centred people face a difficult choice. There are two kinds of students who should benefit from the work of teacher educators; student teachers and children. As teachers themselves, most teacher educators value child centredness. As teachers in a university setting they must be concerned with the needs of adult students. A dilemma is apparently created for them by these two kinds of institutional demands and beliefs.

A second arena of contention between wholists and reductionists is the formal structure of programs for teaching student teachers. Wholist teacher educators are often disturbed by any move to analyze the component parts of the teacher’s role in order to make this analysis the basis of program structure. This is consistent with persons who wish to be child centred, to teach the whole child. The beliefs associated with child centredness are antithetical in some ways with the beliefs associated with careful analysis of practice. Perhaps this is another indication of the confusion between kinds of students; student teachers who need to learn to be aware of their own practice, and children, whose personal integrity must not be violated by adult analysis.

So, I have a lot of difficulty with some of the things that are bandied around here . . . breaking things down into parts suggests to me that people put the parts back together again and that’s a complicated process, synthesis. I’m not sure . . . . I think it’s a bit like the artist who approach it---I mean there is that aspect of teaching is artful. (K02, l. 45-69)
This teacher educator cannot offer any explicit description of the teacher's role, but rather seems to see the role as analogous to a view of an artist's work that emphasizes artistic creativity over technique. In fact the teacher education dilemma is often conceptualized by wholist teacher educators as being between the artist and the technician. Wholist teacher educators thus tend to use the language of art or of traditional academia.

Reductionist teacher educators also often insist on the importance of the child, but they seem not only to believe that it is possible to analyze the parts of the teachers' role in order to construct teacher education programs and methods, but that concentrating on the development of student teachers is the best way to ensure that children receive a good education. They are concerned with the efficiency of teacher education and with its effectiveness as determined on the basis of observable criteria in order that they may ensure that the teacher education their students receive leads to such an end.

It would be actually quite grossly inefficient to do away with the generic classes. And ask the physical education or the social studies professor to teach this [the generic skills and strategies of teaching] because transfer wouldn't tend to be effective. We know enough about transfer of training to know that unless it's provided for—something doesn't tend to be caught unless it's sought. (K21, l. 123-141)

there's the building of those skills [of teaching], . . . really what they are, they are the application of principles . . . (K08, 279-299)

Much of the language the first group of reductionist teacher educators use is indeed the language of psychology and of educational research that has used the methods and assumptions of psychology. Of course, this is not usually so with the second group. This second group of reductionist teacher educators most often use the language of rational philosophy or of the philosophy of science. Sometimes they talk of decision-making. Wholist teacher educators often use the language of humanist or developmentalist psychology.

It seems that the language used by some reductionist and by some wholist teacher educators is the source of the perception that there is a dilemma of choice between psychology and epistemology as the basis of teacher education, and teaching, methods.
unless we know what to teach all the methodology in the world is not going to make any difference. (K24, 77-81)

I would still like to keep a balance between—a certain amount of freedom there. I think, ideally, ideally, I think people should get a very good knowledge basis in any subject area when they go into teaching. (K06, 272-276)

The freedom referred to here is freedom from pressures to emphasize what are called professional studies, or pedagogical knowledge and skill, that are believed by some to exist in the faculty. The teacher educators quoted above do not believe that it is necessary to analyze the work of good teachers to determine the content and operation of good teacher education. They assume that it is possible to analyze teaching problems using the methods that one learns by receiving a good traditionally academic education. This is the justification that they give for maintaining such a curriculum in teacher education. They would emphasize analysis and generalization and the application of the results of these processes in practice as much as do those who advocate curricula based on research on teaching. The analysis would simply take place within a different framework.

Summary

Many of the participants in this study talk as if they believed that there are two views of teacher education in the faculty. The actual characteristics of these two views, their identities, are not so clearcut. Some respondents appear to believe the difference is between those persons who believe that the methods and content of teacher education should be based on knowledge, that is, facts, principles, etc. that have their base in the disciplines, and those persons who believe that the skills of teaching, or procedural knowledge, are the proper foundation of content and methods.

Another description of the dichotomy is that it is between advocates of structured or direct teaching and advocates of experiential learning as the basis for the methods and content of teacher education. Still another emphasizes the differences in language used and in the assumptions that are communicated in that language.
What is clear is that there are differing views of the role of the teacher educator, the theories that should guide the work of the teacher and the teacher educator and the relationship between those theories and the practice of teacher education. Much of this perception of dichotomy seems based on what is, at the very least, a set of confused perceptions of the views of others of the goals and values of teacher education. A stereoscopic view is noticeably absent.

Blurring the Dichotomies: The Experience of Dilemma

In spite of this general failure to recognize the possibility of a variety of useful views of teacher education, some respondents are aware of the value of both reductionist and wholistic views of methods:

at one point in the teaching process, the teaching/learning process, the learning to teach, I think there has to be some acquiescence to other ways. I will admit to a student that they have a valid point of view. I would be open to that. On the other hand I would want the student to be also as open. It's more difficult maybe because they don't have the experience, but to be equally as open. -- Acquiescence, I don't know why that word came out. Another word I see is consent. A certain consent. I will accept dissent, but there is always dissent for dissent's sake. I want it to be that at one point there's consent to something. (K05, l. 411-427)

This teacher educator seems basically reductionist in his or her methodological stance, yet willing to admit the necessity of allowing student experience primacy of place in some instances. The word 'acquiescence' is telling, nevertheless. In the end the teacher educator knows best, whether as a result of empirical research or rational conclusion from authority, principles or experience.

The Ideal Teacher Educator

Each of the teacher educators in this study may be said to have held a picture of an ideal teacher, and of an ideal teacher educator, although these images are not always
explicitly stated. There are several examples of the 'blurring' evident in these data. This is apparent when beliefs about the 'ideal' teacher educator are explored.

Reductionist and wholist views of teacher education each imply an opinion about the characteristics of an ideal teacher educator. In the interviews of these teachers there was considerable evidence of the difficulties of actual choice between reductionist and wholist stances in the daily life of these teacher educators. Many reductionist teacher educators advocate modelling oneself upon the performance of others and advocate direct experience of the acts of teaching and learning as methods of teacher education. Teacher educators must model, in their own professional action, good teaching. Teacher educators must help their students to 'see' what good teaching is, how to teach well, and what teachers must know propositionally for themselves. They must teach their students, directly and by example, to analyze their own teaching or to plan rationally. To do these things they must impart a content, either one based on teaching research or on disciplinary knowledge.

The competent reductionist teacher educator must know how to do, and must actually use in his own classroom work, a wide variety of methods, or demonstrate broad and rationally held knowledge. This is the most powerful demonstration that students can receive. When it is accompanied by the teacher educator's analysis of and reflection on how his or her own methods are carried out, and on their effect on the student teachers, or the teacher educator's analysis of the questions and problems of a discipline, this kind of modelling is characteristic of good reductionist teacher educators.

You have to know different strategies and you have to be able to model them. You have to be able to, not tell about them but teach them, and then once you have taught them you have to say, look, look at what we did. How did we do this? So your teaching strategies have to be varied too. You have to have a variety of strategies and as a teacher educator you need to model those strategies. You should be able to model them, to be able to have them reflect and get them into the discussion. (K25, l. 259-269)
Wholist teacher educators must create an environment for their students within which they are able to construct their own meanings, their own methods, and their own knowledge of how to proceed as teachers, and their own pedagogy.

I think you learn by very conscious attention to the language you use. I think that often, people who are becoming teachers—they need to know, in a very concrete sense, what kinds of information are elicited by the questions we use. And I know that that’s—but—I'm not quite sure how we move beyond that awareness. I suppose there has to be some kind of practice. (K02, 1. 82-102)

This respondent is aware of the power of language and of metaphor. He or she wishes to help the students to change, to grow, by becoming aware of the present state of their own knowledge and belief, presumably on the assumption that once aware, the student teachers will be more open to change, more able to grow. It follows that this must be true of teacher educators as well, although this is not overtly stated and may not be apparent to the respondent. Wholist teacher educators believe in dialogue and so they must engage in it, with their students and with other faculty persons. They must model this kind of classroom interaction.

So, if I really believe there has got to be dialogue [with other faculty members] I've got to be the other side of that dialogue. (K01, 455)

Common Beliefs

When beliefs about ideal teachers become the focus of attention it becomes clear that there is more agreement between the participants in these much discussed dichotomies or dilemmas than was first apparent. It is hard to discover in any of the interviews data that would indicate that any teacher educators, whatever they believe their positions with regard to the dichotomies to be, would disagree with any of the previous three statements of belief about the responsibilities of teacher educators. Teaching competently, using a variety of teaching methods appropriately, paying careful attention to the language used, and engaging in dialogue with colleagues and students are considered
important for all university teachers, regardless of their stance on many of the issues they raised when asked to talk about the proper methods of teacher education.

The teacher educators in this study shared some other important characteristics. They all believed that people could be educated as teachers, that is to say, given the conditions imposed by each perspective, all of the respondents talked as if they believed that undergraduate teacher education was a useful activity with a reasonable chance for success.

All but one teacher educator talked as if the group setting for teacher education was useful, as opposed, say, to an one on one, classroom-based apprenticeship model. All the respondents appeared to accept the university as at least one reasonable place to conduct teacher education. Most of these teacher educators accepted the need for some kind of practicum.

The most clearly evident of all commonalities in relation to methods is that most of the respondents to the study did not talk about the methods that they employ in any way that indicated an ordered or systematic understanding of what it is that a teacher educator does or should do when acting as the instructor of student teachers. These teacher educators could talk in generalizations about students, about teacher education programs, about the knowledge a teacher educator should have. They could not use generalizations systematically when asked to talk about what they actually do when they are working with preservice teachers. Most of their discussion of method is in the form of examples, or stories.

The Difficulty of Talking About Method

In a recent book, Schon (1987) described the education of professionals. He stated his belief that the nature of the work of professionals restricts those who educate beginners in most professional fields to the use of methods that resemble coaching. These methods
emphasize what he calls reflection. Schon's conception of reflection might be paraphrased as comparison of one's own work to the work of those who might be considered exemplars until one understands not only the skills but the nature of that work. The data from the interviews conducted for this study strengthens Schon's argument. Teacher educators talked about acting as various kinds of coaches.

I would say I strive to influence them without being dogmatic. I strive to influence them to question—the purposefulness of what it is that they are doing. The intent, the intention of what it is that they are doing. . . . It seems to me that it is just such an endless journey, that unless I get the feeling, and one does, that people look at it that way. It worries me when I feel that they are looking for recipes. I want them to look under the recipes (K02.1.304-314).

Literature on the performance of experts and novices is also useful for understanding teacher educators' frequent use of examples or stories when talking about their teaching methods. If experts in an activity find themselves in a well structured knowledge or problem-solving environment they tend to use rules or principles to guide their search for solutions. If, on the other hand, experts in a poorly structured knowledge or problem-solving environment search for solutions by identifying constraints and tailoring action or proposed action to take those constraints into account (Anderson, 1986). Teacher education is clearly an area of poorly structured problems. Teacher educators are the experts in some kind of kinds of teaching. Teaching is also an area of poorly structured problems. It does not seem remarkable, then, that teacher educators search for problem solutions in stories about practice.

The work of Medin and Smith (1984) is also useful when thinking about what these teacher educators said about the methods of teacher education. They discussed three ways persons form concepts. Persons may determine that something is an instance of a given concept by applying a defining rule. However, it appears that many of the concepts used by persons in everyday talk include instances that do not exactly conform to any discernable concept rule. Persons faced with this contingency may determine concept inclusion by using a probability criterion. (This instance has this and this feature so it is probably an
instance of X.) If probability criteria aren't flexible enough people determine concept membership by example. (That is an example of X, this looks like X in such and such ways, therefore this is an X.) The teacher educators who participated in this study certainly appear to be determining concept inclusion mostly by example and sometimes by using probabilities.

What happens is that for the first year students I find myself projecting in the future, what they could be, because I'm dealing with [second year students at the same time] ... or interns, and what I see. "Well, we may have difficulty in this area, but I have seen this and this, in this case, evolve and therefore I can make any kind of judgment, select out these students, on the first year, on the basis of---given the possibility of----- (K05, l. 95-105).

Only those teacher educators who believe in the use of methods drawn from research articulate what might be called methodological principles. Even these teacher educators use examples to describe their methods more often than any other means. Other teacher educators either advocate following certain teacher education curricula and adapting them in pragmatic ways, or talk only about the conduct of particular classes, and then often only in terms of examples of what is done. When the teacher educators who participated in this study talk about their actions as teachers they generally use examples.

This speculation about the determination and nature of concepts found in the methods related sections of the interviews is strengthened when it is noted that the concept most frequently used by interviewees was modelling or demonstrating.

No question, for my interns, it has to be an accommodation to the situation. They'll teach the way they were taught because they don't have the years of experience. (K23, l. 172-174)

I think if we set that example, more than anything else we will instil that kind of value system ... [one convinced that learning to teach is a career long matter.] (K04, p. 14, l. 22-24).

I think at the faculty level you have to have a very strong belief and attitude yourself and be a role model (K03, l. 53-55)
Conclusion

The teacher educators interviewed for this study used a variety of conceptions of development and growth to talk about what they knew about teacher education. Three major categories of conceptions were delineated, development as if it were organic, as if it were a revelation and as if it must occur in stages or steps. These indicated a variety of beliefs about the relationship of the knowledge or theory which teacher educators taught and the success of students teachers in classrooms. They indicated a variety of beliefs about the need for practice if student teachers are to learn to teach well.

When these teacher educators talked about methods of teacher education, many of them used conceptions of demonstration or of modelling. Some used conceptions of reflection. Two characteristics of the methods discussion were notable. Most of the teacher educators used examples to talk about the methods they used (or felt they should use). The data on methods indicated a variety of beliefs about the way student teachers learn best and about the best way to organize and carry out teacher education programs. Some believed that learning to teach can be reduced to the direct teaching (and/or practice) of certain kinds of knowledge, whether derived from research on teaching or disciplinary knowledge. Others believed that learning to teach is a very personal, very context-dependent matter. Again, they implied a variety of beliefs about the roles and relationships of theory and of practice in teacher education.
CHAPTER FIVE - DISCUSSION AND CONCLUSIONS

The teacher educators who participated in this study used a variety of concepts to respond to questions about their knowledge and practice. These, and explicit statements of belief, suggested that these teacher educators hold a variety of views about theory, practice and the theory-practice relationship in teacher education. The purpose of this chapter is to enable the reader to look through Bruner's (1986) stereoscope and view the choices and dilemmas facing teacher educators from a broadened perspective. To do this, the two frameworks, one centered on beliefs about the nature of knowledge and learning (the theory-practice framework), and one based on stances toward the methods of teacher education (reductionism and wholism), are discussed and compared. Implications and conclusions drawn by the researcher as a result are discussed.

The Roles and Relationship of Theory and Practice

The teacher educators who were interviewed used many of the same conceptions of theory, practice and the relationship between the two as were found in the literature review. The views of the teacher educators who participated in this study may be organized into the three categories of conceptions of the relationship of theory and practice that were extracted from the literature review and used as the initial organizing and sensitizing categories for the study. The two most commonly used categories are those emphasizing the primacy of theory and those emphasizing the primacy of practice. The minor category is comprised of those who characterize the relationship of theory and practice as an ongoing interaction. These categories will also be used to organize this discussion of these data. The sub-categories of these three main categories were derived from participant interviews. They were subsequently found useful in a reorganization of the literature review presented in Chapter Two.
The Primacy of Theory

Three subcategories of conceptions that indicated a belief in the primacy of theory were apparent in the literature. The first category, naive deduction, is marked by the assumption that it is important that student teachers learn theory regardless of its immediate usefulness. The second category, classical rationalism, is characterized by the assumption that if one learns to think logically, or to understand the ideas of great thinkers, one will be a good teacher. The third category, technical rationalism, is founded on the assumption that the practices observed in the work of expert teachers may be taught directly to novice teachers and that the novice teachers will develop competent practice as a result. All of those who use conceptions that emphasize the primacy of theory assume that the relationship between theory and practice is relatively straightforward. In a variety of ways, theory directs practice.

Naive Deduction

Although there are hints of naive deduction in data gathered for this study, this category is poorly represented. Those who seem to use this conception often also speak as if they accepted the assumptions of classical rationalism. The key words that alert the reader to the use of this conception are 'knowledge' (used as if it meant intellectual possession of something), in combination with some verb that indicates an automatic ability to use knowledge, and as a result, to be able to teach it, if one possesses it.

Now let me come back to the profession, the primary concern is knowledge, knowledge that spills forward to social, health, moral ----The more powerfully you know your subject, the easier you make it for your students. K07, l. 344-350

This teacher educator also expressed a strong commitment to promoting the social and moral development of teachers. He believed that it was very important for teacher educators to model morally and socially correct behaviour. The blend of the assumption that acquiring theory will necessarily result in good practice and the assumption that the
encouragement and modelling of morally correct behaviour will predispose student teachers to behave in morally correct ways is characteristic of both the naive deductionist and the classical rationalist views of the relationship of theory and practice. The way in which naive deduction differs from classical rationalism lies in the lack of concern with the way knowledge possession translates into knowledge use, and the assumption that knowing means possession, that are characteristic of naive deduction.

**Classical Rationalism**

Classical rationalism, as it is used in this study, means those ideas based on the assumption that if one learns to think rationally one will act rationally. The classical rationalist teacher educator does not assume that mere intellectual possession of the ideas of a great thinker or scientist or artist is sufficient to enable good teaching. The classical rationalist recognizes that one must be able to do something with this knowledge. The 'doing' that is emphasized by those who hold this conception of the relationship of theory and practice is an intellectual or cognitive 'doing.' The student teacher must be able to think rationally using the knowledge that he or she has acquired. If the student teacher can do this he or she will be able to think clearly about the problems encountered in teaching and this will ensure that performance is competent. This assumption is exemplified by a participant:

> in the faculty of education there must be some reason, . . . one might say well yes, if we make that distinction, maybe that in turn will illuminate and help us to better understand different forms of punishment: that in turn might enable us to understand how it is that it might be that some forms of punishment are more justifiable than other forms of punishment, (K24, 1. 639-648).

Words such as 'illuminate,' 'justify' and 'understand' are commonly used by these teacher educators. The classical rationalist teacher educators in this study give priority to understanding reasons, to justification, to providing evidence. If a student teacher learns to do this well he or she will be a thoughtful practitioner, one who understands why he or
she must do things in a certain way. The assumption is that being aware of necessity for action will lead to carrying out that action.

Some of these teacher educators think of development as if it meant that the student teachers transform the knowledge they acquire in courses. Most appear to believe, however, that teacher educators can control, in varying degrees, the nature and direction of the change undergone by student teachers. These teacher educators appear to believe that this control is achieved by showing the student teacher reasons. The assumption that all human beings will act reasonably if only they truly understand why they should do so is quite clear.

All of the teacher educators who used a classical rationalist conception of the relationship of theory and practice also used organic or revelatory conceptions of development. This is an interesting combination of conceptions. To believe in the organic and revelatory concepts of development and to believe that student teachers' learning can be controlled seems essentially contradictory, since both organic growth and revelation are centered in the experience of the individual. It is possible that what is being talked about here is controlling the experience of student teachers rather than controlling their development. The teacher educators who use these conceptions seem to reconcile this contradiction by using metaphors from gardening or from scientific endeavor to conceptualize what will occur in their classes. The gardener or the scientific technologist controls the natural by organizing it and by determining the elements of the transformation as completely as they can. Further research might shed some light on this apparent contradiction.
Technical Rationalism

Shon (1983) defined technical rationalism as the belief that relevant theory might be directly applied to the practice of professionals. This conception appears in a discussion about effective teaching:

Well, what is an effective instructor? Obviously they need to know their subject, they need to be able to organize the curriculum in such a way that there is a possibility of success for the students, obviously. . . . they have to start the course by clearly laying out expectations of course. And laying out those areas that there is not much choice, in those areas where there is choice. They have to clearly lay out the objective and how they are going to go about it so that the students know what's going to be happening and even given time lines of the various things-- objectives. (K21, 1. 591-600)

The words that indicate technical rationalist belief appear to be 'effective,' 'organize,' 'efficient' and words that indicate orderly structure and presentation of theory such as 'lay out' in this quotation. The technical rationalist differs from the classical rationalist mainly in that the former searches for specific methods that teacher educators can use to ascertain the learning of specific theory and the application of that theory by student teachers in classroom settings, before and/or after graduation. The technical rationalist also appears to choose different theoretical knowledge as the basis of his or her work. While the classical rationalist uses the ideas of great thinkers, scientists or artists, the technical rationalist uses the results of research on effective teaching and effective schools. The technical rationalist is concerned with the observable application of ideas, while the classical rationalist holds to the belief that any theory that can be seen to be justifiable, or that is clearly understood will, of course, be used.

Teacher educators who use a technical rationalist conception of the relationship of theory and practice also hold a necessary steps conception of the nature of development. These teacher educators believe that they can control, to some degree, the direction of student teachers' learning. Technical rationalists believe that the structure of programs is important, even central, to the success of student teachers. They use a conception of modelling that emphasizes demonstration, and a conception of reflection that equates
reflection with internalizing principles of practice drawn from research, the conscious application of those principles in practice, and the likelihood that once acquired in this way such practices will be used by the graduate teacher regardless of the context within which he or she eventually teaches.

Some of these teacher educators recognize that they cannot move students beyond their own capabilities and inclinations. Some even use language that indicates a belief in personal construction of knowledge. This combination of technical rationalism and personal practical knowledge, of what appears to be belief in the primacy of theory and in the primacy of practice within one framework for action, on the part of some teacher educators is interesting. Perhaps this is an example of belief in transition. Perhaps it is an example of a dialectic between several viewpoints. Perhaps it is an example of an ability to hold conflicting beliefs. It is further discussed when reductionist\wholist frameworks and theory\practice frameworks are compared.

**Primacy of Practice**

Three subcategories of conceptions that indicated a belief in the primacy of practice were apparent in the literature. The first, naive induction, is marked by the assumption that student teachers can learn tricks of the trade, patterns, from their own practice and the practice of others, that will comprise a kind of "tool-kit" with which to meet the daily problems of teaching. The second, belief in personal practical knowledge, is characterized by the assumption that learning is the construction of personal meaning. Although others may be of help, only the teacher can construct personally meaningful knowledge from his or her own practice to guide future practice. The third, inquiry-oriented conception, emphasize the use of the scientific or problem solving method by student teachers.

The relationship between theory and practice is problematic for those who believe in the primary of practice. One major task for those who emphasize the primacy of practice is
to understand how theory is derived from practice and the role of theory in informing practice.

**Native Induction**

There is no evidence of the existence in this group of teacher educators of belief in the naïve inductionist conception of the relationship of theory and practice. This is, perhaps, not surprising, given the university context of teacher education. It is interesting to speculate about the likely results of an observational study of the action of teacher educators should one be done. It is possible that evidence of naïve inductionist conceptions might be found in such studies.

**Personal Practical Knowledge**

Teacher educators who use a personal practical knowledge conception of the relationship of theory and practice also use an organic or revelatory conception of development. Those who use an organic conception make statements such as "I don't grow students... I give them some of the stuff they need to grow" (K13, l. 627-629). Those who use the revelatory conception talk of the threshold of understanding, the moment of illumination, the confrontation with self, reached after struggle and facilitated by the teacher educator. There are clear similarities in the language of classical rationalists and the language of those who use a personal practical knowledge conception of the relationship of theory and practice in teacher education. Both groups use words such as 'illuminate' and 'understand.' Both groups of teacher educators believe that students must transform knowledge. The difference between classical rationalist and personal practical knowledge conceptions appears to lie in what they think happens during 'illumination' or 'understanding.' Classical rationalist teacher educators seem to see the moment, or the process, of illumination as exclusively intellectual and logical. Personal practical
knowledge teacher educators seem to see that moment or process as intricately connected with feelings and with all of the non-intellectual components of life as completely as it is connected with the use of the mind. They believe they must model the kind of learner and educator they wish their students to be. The teacher they provide a model of is one who is concerned with more than intellectual development. They see themselves as counsellors and mentors who are personally as well as professionally concerned with the growth of their students. Teacher educators who stress personal practical knowledge use conception of reflection that emphasizes that reflection cannot take place in any abstract or objective way. All reflection is reflection in terms of one or more contexts, personal and social.

Some of the teacher educators who participated in this study used the language of the necessary steps conception of development and of the personal practical conception of the relationship of theory and practice. It is interesting to speculate on the possibility that this apparently contradictory use of conceptions may be the result of the use of the word 'reflection' in both cases. Reflection in the personal practical knowledge conception usually means the construction of personal meaning. In the necessary steps conception, reflection usually means comparing one's own practice to the ideal taught in courses. Perhaps the concept 'reflection' hides, by its very ambiguity, the possibility of using two very different views of teacher education as if they were the same. Perhaps, too, it provides the possibility of a bridge from one conception to another.

Inquiry-Oriented Teacher Education

Teacher educators who use an inquiry conception of the relationship of theory and practice use, (as do those who use the personal practical knowledge conception), both organic and revelatory conceptions of development. Teacher educators who stress an inquiry conception of the relationship of theory and practice and who use organic metaphors tend to use those of the gardener or the scientist--in one case, 'a very scientific
Other inquiry-oriented teacher educators use a revelatory conception of development and emphasize the comprehension, the synthesis of meaning, that comes about as a result of rational problem solving. They also often appear to believe that it is possible to acquire a taste for learning and growing, to have it become a lifelong habit. These teacher educators talk about the learning undergone by the student as if it were a transformation. This transformation is, like the classical rationalist transformation, an intellectual change. It is different from the classical rationalist transformation in that it emphasizes practical problems and solutions that arise from the practical experience and knowledge of the student teacher rather than theoretical problems and solutions that arise from theoretical propositions and received wisdom.

Teacher educators who use inquiry-oriented conceptions of the relationship of theory and practice in teacher education often also use a conception of modelling that emphasizes problem solving. They want to model practical problem solving strategies based on empirical research into problem solving. Their desire to demonstrate such strategies is exemplified by the invitation, to student teachers, to look at one's own practice to understand how it was done and to formulate theory using that basis. The conception of reflection used by inquiry-oriented teacher educators emphasizes analysis, sizing up situations, treating the teaching act as if it were a research problem, and the development of solutions that are constantly subjected to continual re-evaluation and to change.

The main difference between teacher educators who use a personal practical knowledge conception of the relationship of theory to practice and those who use an inquiry conception lies in the fact that inquiry-oriented teacher educators have moved beyond insistence on the purely personal nature of learning to teach, of pedagogical knowledge. They are attempting to develop publicly communicable and verifiable theory or knowledge about teaching while recognizing the important influence of the context of schooling and the influence of the life experience of each student teacher on learning to teach and on teaching.
Teacher educators who use an inquiry conception are the only ones in this study who are explicitly concerned with the problem of the relationship of theory and practice in teacher education. Those teacher educators who emphasize the primacy of theory, as in most forms of the necessary steps conception, do not see this relationship as problematic. Those who emphasize personal practical knowledge sidestep the necessity to understand the relationship by assuming that the knowledge of teachers is almost completely context-dependent. Most of the teacher educators who use inquiry-oriented conceptions are trying to find some new, or some middle, ground, some balance between reductionism and wholism in which one may be analytic, may use some forms of hypothetico-deductive thinking, while taking into account the effect of the context, and the needs of the context, in which the teacher-graduates will work.

Theory and Practice: An Ongoing Interaction

Most of the teacher educators who participated in this study held beliefs about the theory and practice of teacher education which may be categorized as recognizing either the primacy of theory or the primacy of practice. There are only a few teacher educators in this study who believe that the relationship of theory and practice is a reciprocal or a dialectical one. Most of those who take what I have called a pragmatic view of the learning undergone by student teachers and emphasize the pragmatic approaches to teacher education, appear to believe in the interactive nature of the relationship between theory and practice. While some "pragmatists" may be naive inductionists or even technical rationalists, a few explicitly emphasize the necessity of an ongoing, reciprocal creation of methods and theory in teacher education.

As a matter of fact I'm opposed to the kind of thing that thinks that first you know about it and then you do it, I don't think that's the case at all. . . . They need a little, to be able to explore the doing and I think there's--it's clear that it's cyclical so that you then come back and want to know what you're doing and then you want to try that again and it constantly goes on in a cycle. (K08, I. 172-186)
This view implicitly emphasizes the importance of critical reflection. It emphasizes neither the primacy of theory nor of practice in the work of teacher educators. Certainly the teacher educator cited uses a conception of the relationship of theory and practice that emphasizes a necessarily ongoing relationship between the two. It is not clear whether he or she also believes that the student teacher must be critical in anything more significant than the sense that favors careful scrutiny of one's own practice in relation to the theory that has been taught or to the daily practical necessities of smooth classroom functioning. Nevertheless, this conception of the relationship of theory and practice introduces the possibility of a reconciliation of the problem of understanding how it is that student teachers can develop publicly communicable theories of teaching different from the reconciliation presented by those who advocate inquiry-oriented conceptions or those who explicitly or implicitly see practice as being deduced from theory.

In the pragmatic view, the relationship of theory to practice is one of constant change, of constant alternating development of new theory and of new practice. Whether or not this indicates that this teacher educator believes that his or her work is the ongoing creation of what some would call a "praxis", (an ongoing reformulation of the relationship between social context and individual action), a reconsideration of one's ideals in relation to experience of daily life as an educator, is impossible to tell from data gathered for this study. There is reason for a future study to consider the question, but there is insufficient evidence here to begin to formulate an answer.

It is clear that there are many overlaps among the various conceptions of the relationship of theory and practice to be found in the discussions of the teacher educators studied. This ought not to be surprising. The respondents to this study have shared many educational, personal, and professional contexts, often for long periods of time. Although the nature of the data analysis done for this study has emphasized differences, it seems likely that these teacher educators share many more similarities than is at first apparent. The strongest indication of this is the prevalence of notions of development and of some
kind of growth that are to be found in almost all of the interviews. Although conceptions differ considerably, their views are not so radically different from one another that no connections can be made among them. No one appears, for example, to hold the old belief that it is impossible to teach someone to be a teacher, although some clearly do not believe that all people have the capacity to develop into teachers. While this may be a matter of belief necessary to justify working in a faculty of education most of the conceptions of development and growth that appear in individual interviews contain sufficient detail and reasoned argument to indicate that they are most likely sincerely held beliefs.

**Sustaining Beliefs**

It seems likely that many of these beliefs about the theory and practice of teacher education are what might be called sustaining beliefs. Sustaining beliefs are beliefs which are general, basic to one's general perspective on teacher education, and based upon certain assumptions about the nature of learning and teaching. These beliefs are not usually translated directly into action, but provide the context of decisions about what action to take. An example of a sustaining belief is the belief that development is intrinsic to and controlled by the learner. Some of the beliefs held by these teacher educators do directly guide decisions. These might be called instrumental beliefs. They are much less common in these data. An example of an instrumental belief is the statement that student teachers must keep journals using a format prepared by the teacher educator so that the student teachers may reflect usefully on their practice. It is possible that some of the conflicts which teacher educators perceive to exist in their work lives may have their source in the existence of sustaining beliefs about teacher educators' role with regard to schools and with regard to university life which are contradictory.
Comparing Categories of Conceptions and Beliefs

The teacher educators interviewed in this study expressed beliefs that have been categorized as emphasizing either the primacy of theory, the primacy of practice or the necessary interrelatedness of the two in their conceptions of the relationship of theory and practice. However, these issues may also be talked about in terms of reductionism and wholism, especially in relation to the methods of teacher education. By comparing the two sets of categories it may be possible to enhance understanding of the relationships between the subcategories and thus begin to clarify some of the confusion evident in so much teacher education literature.

Reductionism

Reductionist views usually indicate a belief in the primacy of theory. The role of theory is to direct practice. Classical rationalists emphasize knowledge of subject and logical, careful thought. They are reductionist in that they assume that the elements of their curriculum, that is the theory, can and should direct the practice of teachers to enable them to be competent. Technical rationalists assume that theory must be applied to practice. This is an extremely reductionist view. It reduces the content of teacher education to that which it can be shown efficient teachers do. It reduces subject matter specialties to one general method. The technical rationalist emphasizes the efficient building of teaching skills and strategies for use in classrooms. All teacher educators of both groups require some consent or acquiescence to their view of the world from student teachers. The difference between the two is only in the source of the theory. Classical rationalists find it in rational understanding and use of existing knowledge, technical rationalists find it in observations of classrooms and competent teachers.

There is a third reductionist possibility. If one holds traditional 'scientific' beliefs about the development of teaching method, a reductionist conception of inquiry results.
This stance toward teacher education would emphasize strict adherence to procedure labelled as 'the scientific method'. It was a conception of the relationship of theory to practice something like this that formed the 'scientific management' ancestor of technical rationalism in the schools of North America in the first decades of the twentieth century. This is different from the more wholist view of inquiry that has been delineated in this chapter in that the development of the student teacher is envisaged as almost completely controlled by the teacher educator. This difference is similar to the difference intended when one makes a distinction between discussion and guided discussion or between discovery and guided discovery when talking about teaching methods.

These conceptions of inquiry provide a further illustration of the complexity of the conceptual language and of the beliefs about the role of theory in relationship to practice held by teacher educators who might be called reductionist.

**Wholism**

Wholism has much in common with support for the primacy of practice. Because teacher educators espousing wholist views are not as certain about the right thing to do with student teachers as is the happy lot of reductionist teacher educators, they often appear to have more difficulty being clear about the relationship between theory and practice than do those who believe in the primacy of theory. This is probably because each of the subcategories of the primacy of practice, as seen in the review of literature and earlier in this chapter, presents, for wholists, a slightly different perspective on this relationship.

Thus, those persons who use conceptions of the relationship of theory and practice herein called "personal practical knowledge" are wholist but emphasize the subjective, almost artistic, construction of knowledge. They are often concerned that education be child centred and mindful of the needs of individual learners. As we have seen, they
emphasize that the role of feelings, of emotions, of aesthetic response, is as important as that of the intellect. Also, they hold that when knowledge is constructed it remains the knowledge of the individual who has constructed it. These teacher educators do not seem to be overly concerned that knowledge be publicly communicable. They are concerned that each teacher understand the context in which he or she works and understand his or her own relation to it. They believe that if this understanding comes then competent teaching is inevitable.

As we have seen, however, there are those wholist teacher educators who, using an inquiry-oriented conception of the relationship of theory and practice, are concerned to publicly communicate and share the knowledge that each individual has constructed. This group of teacher educators, like reductionist teacher educators, attempt to discover principles or at least significant exemplars that can inform the understanding of all educators. They are wholist, however, because they are concerned with the teacher and the student as persons living and working in a social context and experiencing that context with more than their intellectual capacities. They seem to be seeking a balance between the structure and order that viewing theory as primary brings to teacher education, and the creativity and richness, the confidence in one's personal action, that viewing practice as primary makes available to teachers and teacher educators.

Descriptions of the knowledge and practice that teacher educators should have and should demonstrate imply views of the ideal teacher educator. These 'ideals' help us to see the complexity of the beliefs held by these teacher educators. The ideal teacher educator of those who hold reductionist and theory dominant conceptions would use methods that emphasize knowing how to do something or knowing about something (depending on whether they are technical or classical rationalists), ensuring that the student teacher can see the steps in or the structure of what they are to learn. These teacher educators would be obligated to help student teachers to reflect on the models and strategies taught to them so that their own practice moves, by successive approximations, closer to the ideal.
The ideal teacher educator implied by the practice-primary conceptions of the relationship of theory and practice and wholist conceptions of teacher education methods is someone who creates an environment where at least one of two results is encouraged. This teacher educator makes it possible, on the one hand, for student teachers to construct a personal teaching repertoire, style and competence. On the other hand, the ideal wholist teacher might also be one who encourages careful, systematic problem solving and the development of publicly communicable theories and practices.

Each of these views implies an ideal teacher educator who can work so that student teachers may reach these ideals. As we have seen, however, views of the ideal teacher educator often blend characteristics of one set of beliefs with characteristics of another. A good example of this was the blending of concern for the child and for a wholistic view of learning with a belief that a good teacher educator ensures that his or her student acquires certain defined skills and kinds of knowledge which one teacher educator clearly demonstrated.

The existence of this range of beliefs about the relationship of theory and practice is also complicated by beliefs about the nature of the context in which teacher education occurs.

In general, beliefs which are clearly reductionist or clearly wholist in the broadest sense of the term may be called sustaining beliefs. Thus it is possible to identify belief stances which are coherent, at least when teacher educators talk about their knowledge. When teacher educators talk about what they must do, sustaining beliefs must be translated into instrumental beliefs. This appears to be difficult for many teacher educators. The context and conditions of their work make clear choices of actions which match strongly held sustaining beliefs difficult for these teacher educators.
The Context of Teacher Education and its Relationship to Views of Theory and Practice

The review of literature reported in this study reveals a wide variety of descriptions of the context of teacher education. The context that teacher educators believe to be theirs is one that demands that teacher educators make practical and value-laden judgments in an ill-structured problem environment. In this teacher educators share the problems which will be faced by their students as graduate teachers. Their day to day problems are not theoretical. Decisions and action cannot be deferred. To solve the problems that teacher educators face they must take action. The ill-structured problems faced by teacher educators are practical problems, they cannot be solved theoretically. Teacher educators must make decisions about two kinds of practice, their own and that to be taught to their students. However, they must make these decisions within a university context which values theoretical problem-solving and theoretical judgment. This is very different from the environment in which their students will try to solve the same problems. They may make these decisions from personal experience of the school environment, but they do not work in it. They experience their own environment as filled with practical problems, not the least of which is the reconciling of two belief systems, that of the university and that of the school.

Throughout the literature it is possible to see the constant recurrence of conflict between beliefs about the nature of knowledge and the nature of the work teacher educators do that is also apparent in the discussions of the teacher educators who participated in this study. Some of the work of teacher educators requires a reductionist stance, requires belief in the primacy of theory. One example of such work is the necessity to teach student teachers basic skills of instruction or classroom management such as questioning or the efficient distribution of materials. These tasks are most easily and perhaps best taught directly or in what might be called a reductionist mode. Other tasks make desirable a wholist stance and belief in the primacy of practice. One example of such
tasks is the necessity to help student teachers reflect upon, to make sense of, their experiences in classrooms and to build a personal philosophy of education upon that experience and their coursework. These tasks require a global or wholistic view of the work of teaching and can only be taught indirectly. If belief systems express individuals' views of social reality, as is suggested by Rokeach (1968) and if beliefs influence action as suggested by Davidson (1968) or by Fullan (1982) it is not surprising that teacher educators hold such a wide variety of views about their work and talk about it in such diverse ways. If teacher education is a practical problem environment, if teacher educators are experts in such an environment and experts in poorly defined areas, the confusion that has been identified in the literature may be a reasonable and necessary part of the life of an educator of educators. The teacher educators who participated in this study talked about their work in ways which confirmed the suggestion that conflicts of belief, dilemmas of choice between poorly defined alternatives are normal in their world. If this is so then time and energy spent trying to find the right way to teach or the right way to teach teachers is presently wasted. The desire for a program or methods which would solve all problems, also apparent in many of the interviews, is misplaced and counterproductive. Effort should be directed instead to clarifying the range of useful kinds of research and practice with a view not to eclectic practice but to reasoned choice between clear alternatives within specific contexts. This seems close to Schwab's notion of informed eclecticism. Teacher educators need to be able to recognize the necessarily context-dependent nature of their work, and the work of their students. Perhaps they should be attempting to discover how best to teach student teachers to identify the characteristics of educational contexts and the needs of learners within them. Perhaps they should apply themselves to discovering the range of methods of research and of instruction that will be of most use in a wide variety of contexts. This would be the teacher educator's equivalent of the old maxim that emphasizes the importance of learning how to learn.
These dilemmas are what is at the root of the experience of, and belief in, dichotomies or conflict which some of these teacher educators reported within their faculty and which was apparent in the discussions of others.

The Experience of Dilemmas of Choice

The teacher educators in this study talk about a variety of conflicts between perceived dichotomies in the work of faculties of education and in their own work. The existence, in the minds of these teacher educators, of both reductionist and wholist orientations to, or sustaining beliefs about, such tasks as program development, implementation, structuring the experience of student teachers and of assumptions about the primacy of theory or of practice in teacher education has been demonstrated. Several conceptions, based on apparently dichotomous concepts and beliefs are revealed in the responses of the teacher educators in this study. The participants in this study often had their own ideas about dichotomies as well. These included what might be called "method" dichotomies -- between those who believed that the basis for methods should be epistemology and those who believed the base for methods should be psychology. There were also dichotomies between art and technology, or art and craft, or science and technique.

Dilemmas of choice between perceived dichotomies were apparent when the teacher educators were talking about theory, about what they knew about good teacher education. The dilemmas were less clearly definable, but perhaps more acutely felt, when teacher educators began to talk about the methods of teacher education, about what they do or should do. Some teacher educators could talk about principles of teacher education when they were talking about knowledge, few could when talking about their practice.

Each teacher educator interviewed for this study may be said to have a set of espoused beliefs, or belief stance, which he or she held about the best way to accomplish
the work of teacher education. These stances, as has been described, may not always be consistently or coherently in one of the categories of beliefs described in this analysis. This is easily seen by comparing descriptions of the ideal teacher, or teacher educator, and descriptions of personal practice. Descriptions of the ideal teacher educator favored one or another conception of the primacy of theory or the primacy of practice. But, when talking about their own practice teacher educators used conceptions from opposing, as well as related, belief systems often enough to suggest that the teacher educators who participated in this study were not always able to embody their beliefs in practice, nor were even aware that they held two conflicting views simultaneously. Strong moral stances were common, yet persons holding differing positions often reported using similar instructional and supervisory methods. Participants obviously struggled with the request to talk about teacher education methods. Almost every discussion included some talk of dichotomies. They were discussed in "we-they" terms, in terms which invited the admiration of this researcher, in terms which expressed doubt and frustration.

Participants clearly believed that they had to make choices between very difficult alternatives. Many of these choices appeared to have much to do with coping with the expectations of others when what you wanted to do was what you knew was right. Some were about just not knowing how best to do this job and not having time, nor reward, for finding out.

Examples of difficulties created by the juxtaposition of belief positions were common. For example, most of these teacher educators did not appear to recognize implicit conflicts such as those inherent in attempting to judge novices by expert criteria. Although some conceptions of the relationship of theory and practice contained an emphasis on recognizing that graduates of the faculty would only be beginning teachers, even teacher educators who used these conceptions structured their programs and their expectations of student teachers on comparisons to the performance of those persons they considered to be good or competent teachers.
If teacher education is as poorly structured and conflicted an environment in which to make practical, value-laden decisions (and in which to solve problems) as it has been described to be in the literature reviewed for this study, then these results should not be surprising. These teacher educators have to act within at least two conflicting sets of beliefs, those of the university community and those of the schools and the profession. They face norms from both academic and technical sources. The history of teacher education, with its roots in teachers' colleges and its present placement in universities ensures the existence of this conflict. This is also the practical, day to day reality of teacher educators. Each teacher educator must strive to keep a personal and professional balance between a variety of conflicting factors. Many of these teacher educators seem to have reacted to this situation by developing somewhat flexible belief stances. Within the university context some things are of paramount importance. When working with schools, others assume priority. The result of this experience of conflicting necessities may be much of that which has been described in teacher education literature as the inability of teacher educators to 'fit' university norms, or the dark, conflicted, confusing, flat, environment of faculties of education.

Yet each of these teacher educators seems to have a point beyond which the necessities of the contexts of their work cannot push them. These vary from belief stances which embrace completely or almost completely those of one or another of the contexts of teacher education (university or schools) to those who try very hard to scrupulously and fairly balance the demands of these two.

If all of this is so, then it not surprising that most of the participants in the study can be seen to hold elements of belief which are in conflict, and to hold a kind of priority of beliefs within one belief stance. Further study of this possibility might lead to the provision of more accurate stereoscopic pictures, of the work of teacher educators. Besides making change difficulties more comprehensible this might also make successful change in teacher
education more likely by simply increasing the possibility and ease of dialogue between teacher educators holding differing belief stances.

It also seems likely that the interaction between personal biography and institutional context is more complex than that suggested by those who pose the possibility that teacher educators are incapable of working well within universities because their social origins are mainly within lower socio-economic classes. This explanation of the difficulties many faculties of education experience in their relationships with their universities seems facile in the face of the complex relationships between individuals and contexts and beliefs suggested by the results of this study. These teacher educators are faced with many, complex, dilemmas of choice: dilemmas of choice between valued alternatives, and dilemmas of choice created by the very nature of their work. These dilemmas of choice become more difficult, never simpler, the harder the teacher educator tries to do a good job. The dilemma is necessarily interpreted differently in the different contexts in which teacher educators, if they are to be successful in the eyes of their clients, teachers and schools, and their colleagues and employers, the universities. More and clearer description of and information about these contexts and about the nature of the choices to be made seem to offer the only possible hope of easing the burden of the dilemmas felt by these teacher educators and by those described in the literature review. It is also possible that more information will simply deepen the dilemmas. More research is required.

More and better information about the choices and the contexts may clarify the demands placed on teacher educators. The demands for reform faced by teacher educators are incompatible. Some arise from the belief systems and the needs of schools, teachers, and learners. Some arise from the belief systems and the needs of universities and their faculties. Choice between incompatible alternatives is not ever going to be easier, but if teacher educators understand the alternatives more clearly, if they understand the nature of the choice, at the very least they may stop blaming themselves for not being able to be all things to all people no matter how hard, and how well, they work. It is possible that with
this understanding may come a freeing of energies to do as good a job as may be done with whatever choice is made, as individuals and as faculties.

The clearest example of all of this lies in the wide variety of views of development which were found in the 25 interviews done for this study. Teacher educators viewed development as transformation, as student controlled, as program controlled, as slow and organic, as sudden and revelatory, as following logical predictable steps, as being idiosyncratic and individual, as the result of logical thought, as intuitive, as inevitable, as capable of being hurried, nurtured or created, as incapable of all of those, as something all teacher education students would do given the proper environment, as something you were born with regardless of education or environment, and so on. Without awareness of this complexity a teacher educator says 'development' as a program is being planned, another agrees to, or disagrees with, something greatly different from that which was intended. Without awareness of the contextual and biographic factors making this a reasonable and necessary occurrence everything seems arbitrary and very, very frustrating. Perhaps with a stereoscopic view, with an understanding of the reasons for, and reasonableness of, these difficulties, emotions will be quieted and change will be easier. Perhaps possibilities of changes, and of means of change, not seen in this busy world of the teacher educator will become apparent.

Implications

Implications for research

The evidence and description of the complexity of beliefs held by the teacher educators in this study suggest that a fruitful area for research in teacher education may have been neglected. When the complexity of the environment faced by teacher educators in their daily work is also considered, it seems reasonable to speculate that further
research may help to provide explanations for the difficulties faced by teacher educators in faculties of education and in changing their programs which are different from those currently found in the literature. When educational researchers began to explore the knowledge and practice of teachers through observational and action research many questions that had not been explored were pursued with marked effect on teaching, teachers and teacher education. This study suggests that the results of such research into teacher education and the work of teacher educators should prove equally rewarding.

Teacher education is a messy and complex activity involving interaction between a variety of different contexts, different institutional and personal belief stances. If this is so, more research is imperative: studies which describe, more fully than this study does, the work of teacher educators and, perhaps, when we have a clearer picture picture of this work, studies which attempt to clarify the causes of many of the difficulties of teacher education, as well as studies which indicate the methods and philosophy of clearly competent and effective teacher educators and programs. Such studies seem likely to be helpful in the century-long quest for improved teacher education.

This study is the initial phase of a program of research which will include studies of persons influential in the development of teacher education in the province in which this university is located, intensive ethnographies of individual teacher educators at work in schools and universities, action research in cooperation with teacher educators and teacher education students, and action research in which the researcher is also the subject of the research. Research such as this, while it will not directly change nor indicate how to change practice, will help teacher educators to construct their own understanding of how they may go about doing so.
Implications for Program Change in Teacher Education

The results of this study suggest that those persons who have been attempting to change teacher education have made an error similar to that made by education generally in North America. These persons have attempted to change teacher education externally, or to change it by changing program structures. The results of this study, including the literature review, suggest that the social, institutional, intellectual and belief contexts of faculties of education are much too complex for such a simplistic view of change to be effective in them. Change and reform in teacher education are not likely to come about until the contexts of teacher education are much better understood, by those within them as well as those who would change them. It is clear that changing teacher education programs is not all that is necessary if we wish to change change teacher education. Teacher education programs must be changed as a part of or a result of a process in faculties of education which encourages examination of fundamental beliefs and assumptions on the part of teacher educators.

Implications for the Practice of Teacher Educators

Teacher educators work within a very complex environment. The teacher educators who participated in this study appeared to have a little explicit knowledge of these complexities, although many of the stories they told implicitly recognized them. They held belief positions strongly, even when they found them difficult to maintain in practice. Difficulties in doing teacher education the way they believed it should be done were attributed to causes external to the activity of educating student teachers, such as personal inadequacy, mistaken ideas of colleagues, poor practice of themselves and of others, their own or others' incompetence, and insufficient reward systems, to name the most common. Few of the teacher educators seemed aware that many of the difficulties they faced might be contextual, in the broad sense of contextual used above, as well as personal. They
continued to expect to change themselves, their colleagues or their programs without considering the nature of the contextual beliefs of university and school as possibly serious barriers to the achievement of their desires. Increased awareness of the complexities of the contexts of their work, may help teacher educators to change their personal practice, to achieve the ends that they believe that they should achieve, and to understand that some ends are not possible or are inappropriate in teacher education that takes place, as does the work of these teacher educators, in faculties of education, in universities. It seems evident that the first step to such awareness must be serious consideration of the nature of the relationship between theory and practice in teacher education settings. Some awareness of the reasons for and the complexities of the interactions between reductionist and wholist beliefs and methods, between dependence on theory for guidance and faith in practice as a source of knowledge must be struck. In this teacher education is not different from other social scientific endeavors at this time. It is merely part of the general questioning of the nature of knowledge and of coming to know that occupies those concerned with the philosophy and the practice of science and of social science generally. Recognition of this is perhaps the most helpful thing that could happen to teacher education generally. The end to the search for the impossible dream of certainty in knowledge and method might be the beginning of a fruitful exploration of many useful and fascinating possibilities.

The results of this study, and perhaps of the proposed research, seem likely to do for teacher education what similar research has done for our understanding of teaching. The results may help us to understand how good teacher educators and how good teacher educator programs work. We may not be able to directly apply this expert knowledge to our novice performance, but it may give direction and guidance to our search for expertise.
Conclusion

This study describes the concepts and conceptions used by 25 teacher educators in one faculty of education to talk about their work. The study includes an analysis of the language and of the beliefs about the theory and the practice of teacher education that these teacher educators expressed. The interpretation of these beliefs stresses the existence of dilemmas, perceived and real, in the work life of teacher educators. The study concludes with a suggestion that only a richer understanding of the contexts, social, institutional and intellectual, of the work of teacher educators, and of the dilemmas arising from the interaction between these contexts and the personal experience of teacher educators will enable teacher educators to make the reforms that so many within and without education seem to demand at this time in the history of teacher education.
REFERENCES


Bruce, M. G. (1985) "Teacher education since 1944: Providing the teachers and controlling the providers." *British journal of educational studies*, 33(2), 164-172.


developmental model of teacher education. Paper presented at the Teacher Education in the 80's and 90's seminar at the University of Groningen, Groningen, The Netherlands, April 2-8.


Taylor, G. D. and Miller, P. J. (1985) Professional coursework and the practicum: Do good students make good teachers? *Canadian journal of education*, 10(2); 105-120.


APPENDIX

Sample Interview One

(Experienced teacher, also an experienced teacher educator.)

As you know from our talks before, the study is about people's concepts and beliefs when they talk about their work. And it seems to me that the easiest way is just to talk about work and not to worry about the concepts, and that, which fit with them. To talk about work and to talk about it using what you know and what you have to do because we want to focus it on your role and on what you have to do, although we will talk about what students do. [Yes.] So basically what I'm curious about is what you know or have to know. What you have to be able to do or are able to do, when you teach teachers, so that when you see them working afterward, you feel fairly comfortable with what they do. You would feel fairly comfortable with what you see there. So what you have to do in order to help them become that or to produce that product, or whatever, to...

R. Also interesting because I watched C--- M---- in spring and you know our ******** program. ******* and all that. I had gone over to get a photograph of C. for our presentation, she was doing such a good job.

I remember what a lively one she was.

R. Yeah, very lively, talkative and I got there just after lunch and stayed til six. [whoa..] What happened was, she was in the midst of teaching when I got there so I just sat down and observed. And the point that you're raising is so interesting because she was including all the arts in her lesson. I saw a group that came in and out. She was using role playing from her Drama class, she was using visual information in having them document things and write them down. And then do images using their feelings and attitudes. Her topic. Her topic was leaving, which was again relevant to kids, taking
where they are coming from and putting that into her class. She used their rock music as sources. She later told me that she listened and listened and listened to their music. She'd ask them what their favorites were without saying what she was doing with it. Taking it home on the weekend. Scouted and found all the music, and selected those that had to do with leaving and parting. Then she took some of the words out and put them into the written form which then turned into poems for the kids. So she was talking about literature and the forms of writing, and the kids didn't even realize she'd done that until she started handing out the poems which were their own words. So back to your question, what do you have to do in order for those things to happen. I think at the faculty level you have to have a very strong belief and attitude yourself and be a role model.

Tell me about all three of those things, having a strong belief, an attitude, and being a role model.

R. Oh, attitude and belief, I suppose, I don't know, it seems to be easier to make it function here. [why] I think it is because our faculty some of our faculty anyway, we are used to the whole concept of risk taking, which we talk about as a way of looking at teaching, and that rubs off onto faculty who are, I suppose, willing to try that themselves, and so that gives that belief, and attitude and behavior, we're all role models. Why, I think it rubs off, in the sense, that rather than be maintenance crew, that's a phrase that I use, that we're here to make change. Education means change. We're here to look at changes and before we can make changes we have to have a strong belief of our own. Where we see things going and happening and changing in the community. If we don't have that we don't have any guiding goals for ourselves. We can't make those things happen and the students know, or I think would get to know fairly quickly, that you are just a maintenance person, I suppose, by their own experience with whatever you are talking about. For example I'm talking about the visual class and I said "well, the way to go is to set up a program that looks exactly the way the programs look now." I mean why bother. Why bother going to
university for that because those students know those things already. That's part of it. I mean there's more to it than that but, ...

You think that the only justification for your being here is to make sure that things change in the schools and change here, because otherwise they could just learn to be a teacher by going out and sitting in schools and watching a teacher?

R. Right, right, I think we have a job here and when I first came here I didn't know what my job was.

How did you learn? Tell me more about not knowing what the job was, but then I want to ....

R. Well, I had an attitude, I shouldn't say that I didn't know. I assumed, when I came to the university, that university should be a place for not the ivory tower concept, but the hot house concept.

That's a new word for me, what's a hothouse....

R. ....seedlings, sprouting, generating, growing, growing, growing.

And its not that?

R. Well, at first it wasn't. I thought, when I came here. I was really angry. I thought it was a place to raise questions but I was, how can I put it, too green because I didn't understand the questions that were raised before I entered the discussion, alright? [uh, huh] so I had to do a little observation, I had to do a little listening for a while, to find out in fact what the scenario was in the first place, before I started raising my own questions. Yeah, maybe we should close the door, etc. Once I get talking I start talking louder.

So do I. So what, you came and you were mad because it seemed not to be a place where things grow and are generated. What happened?

R. Initially, Then I realized that there were certain people who were anxious to do those things who wanted some change, who thought that the campus was a place for
generating role models, to do the risk taking. There were lots of risk takers prior to my arrival on the scene, but I couldn't identify them.

**Why not, what kept you from being able to identify them?**

R. Uh, I suppose it would be, I'll really have to look at it. It would be the superficial kinds of things that were going on on the surface that didn't get at the whole notions of concepts of education. What I'm saying is [I need a for instance]. For instance, being new I was so caught up in bureaucratic structure, which clouded the whole notion of what the seedlings were and who was doing the watering and cultivating of the ideas. It was very difficult to sort those things out. Later, it became pretty clear that there were a lot of people here who were in the hothouse situation. Generate not change for change sake, but change for the better. To improve the quality of education. To improve program development for education, and doing those kinds of things improve what goes on in classrooms because that's what we're for. Basically.

**When you found that out, when you began to realize what was going on, what do you think you had learned besides learning that? Are there any things that would be able to make you able to be a better faculty member?**

R. Well, I don't know, laughs.

**Well, what have you learned? Can we put it into words?**

R. Well, I'll tell you what really impressed me. What impressed me was a class that I took as an undergraduate. In this university. After I had dropped out as an undergraduate, I finally went back, older and wiser, with some experience. A little older, a little wiser, I say. Not too old. [laugh] Took what was called an experimental class in education 100. In that class I thought there was some really exciting things happening. Because I really dreaded taking what I assumed would be a methodology class. [why did you feel that... ] I had gone to ----[ university] that was for a year, working on a BA, which was total avoidance of education. Then I worked for several years. I was enrolled in a B.Ed. program, secondary art major. One of the required courses was the new
experimental 100 that I mentioned. I thought, oh god, this is really going to be tedious and dull, because I was assuming that the way the class was going to be would be the way I was taught. Which I thought, well I know those things already.

So you assumed that they were going to show you how to do a good lecture...and you knew those things already?

R. Right, so I wasn't impressed by that. In the class I was really impressed by the people who were involved. Some of whom are still on our faculty to this day....

What did they do that....

R. They made the students feel important, that their ideas were acceptable. They weren't the be-all and end-all. They were part of the group and the students felt, well, I did, and I think that the rest of the students felt that they were part of the debate that went on in terms of the questions raised in the class. There was a chance for us to get into small groups, debate about issues we never had the opportunity to do in large class. Because it was a fairly large class, about eight, ten of us in a seminar group, to talk about issues. They also asked us to examine our own thinking about what we thought it was all about. Which I thought was really exciting.

And you did all of those things.

R. In the class yes. I learned something about somebody else's ideas, I learned something about teacher education, I learned something about myself and I think that's really important. For students to learn something about themselves in the class. If they themselves go through it also and just repeat what they know its not much challenge.

So these people provided a role model for you as faculty member?

R. That was the beginning, why I even came to this faculty, it was prior to my even going into teaching. And another thing that really impressed me, some around here would die. Was the internship seminar. When I became teacher and had interns, I went to, not the first seminar, but one of the early seminars for cooperating teachers and I was really impressed with the process of instruction, the process of, I got more, for example at the
internship seminar than I did in my whole education degree. Because I was pre the process that is currently going on on campus.

There were some of the experimental classes but this was before a program had been developed?

R. Right. For example 226 didn't exist. It was on the way. I was really impressed with the seminar itself, in terms of teaching and approaches that could be learned as skill, learned as concept, transferred to classroom. Those kinds of things. I was really impressed with that. I remember talking to M--- [major faculty leader of development of new program] about that. He said well why don't you say something about it. I can realize why he told us, what I thought. In fact my intern wrote a statement and sent it in and sent it to the --- [Teachers' Organization] [amazing] Statement of her interest and excitement generated by the seminar and by the whole process of looking at internship.

You were involved in teacher education from when you were a teacher. You seem to trace your learning to what you are now.

R. I suppose, in fact, when I said I went to --- and took a B. A. which was a total avoidance of education, perhaps the reaction to people saying "you'd make a really good teacher, you'd make a really good teacher" and at that age you do whatever everyone says you shouldn't. The opposite you know, the reverse.

Yes, so can we pin this down a little bit then, what it is that you feel you need to be able to do as it appears in these stories that you have been telling and which are really helpful, is that you need to be able then to teach your students about what it is about the subject that they are learning to teach, which in your case is ---, all wrapped up which has become a content, which you have developed, you and the group.[yes, uh-huh] [this is a composite subject area department, teaching a specialization which is formed of a combination of disciplines.] You need to be able to teach them about teacher education which, it seems to me, means two things to you: it means how to be a teacher, but it also
means about what happens to them as they learn to be a teacher? [uh huh] I hear you and you need to be all of things yourself, within your....

R. As much as possible, within your own comfort levels. Within your own comfort levels that make it natural for you to do those things. Not to push yourself to, lets say not to eradicate your own personality, in order to...

To join a, say, standard system....

R. Right. You are who you are, but included in who you are is your own personality. I think that, yeah you have to do some of that modelling.

So you are talking about a person who is pretty flexible. All the way through what you were talking about you were talking about a person who not only tolerates ambiguity, but actively goes to create it.

R. Uh huh. Raise the question

What do you know that makes you able to do that? I mean what's the knowledge base that, you have a reputation for doing it well, what's the knowledge base?

R. That's a really good question. It's a hard one.] I don't think it's so much knowledge base as attitude.

Okay. Tell me about attitude. I'll shove you at knowledge later. What's the attitude base?

R. The attitude base is to, I suppose look at issues and concerns from a questioning approach. Curiosity, I suppose. And I suppose when we talk about training teachers to teach, if we were on the receiving end of that teaching, what would motivate us, as an individual. An individual is that curiosity, is that wanting to know the answer. Not being given the answer, but wanting to know the answer. I think that's the excitement that is generated. Not only for the kindergarten student, but the adult learner. If we can generate those kinds of attitudes, beliefs, motivators within your own classes that to me is the significant thing. And that's why I sort of steered away from the knowledge. The knowledge comes, the knowledge will, how can I break it down. The knowledge will be
almost secondary to the question. [Okay, that's a nice way to deal with knowledge] So that
in fact different notions about knowledge is in the first place. Whether it be a paradigm or
a model, or whether it be that knowledge be strategies and approaches, information.
Whether it be facts and figures, whether it be skills of how to do something. I think those
come, if those come with the attitude, I think they're stronger.

Ah okay. You triggered a thought in my mind. And that is to wonder what it is that
is happening to the student teacher here? What is happening, from year one in your
program to year three or four, what, if we put this knowledge that grows, with the attitudes
and the sort of, uh, within the attitudes and beliefs that you have that I presume you are
transmitting to them. What's going on with the students?

R. I think the students are going to become individuals. I know that, I'm going to
backtrack here. [please do]

Attitudes about what was happening to students when I came here. That they
would become well, the whole model of the sausage factory that goes on in education. They
are squeezed into a unique shape called a sausage, and all of them become unique
sausages. Anyway. By the act of our program, and the effect of our collective programs on
our students,

So do you mean that there is an individuality with each sausage or that they are all
the same sausage?

R. Well initially the whole notion is they are all the same. I think they come out
with some conformities because our faculty we have as a total created some kind of concept
as to what a teacher should be, and look like. and behave and so forth. I think that our
programs, the way the students, what happens to the students, I believe in the *****
program, I think maybe more in the ***** program than in other programs, I don't know.
That's a good question too. Hopefully our aim is that students themselves become leaders
not followers.

So they can't be, then, all the same sausage?
R. No it's our hope that the students will in fact, become the resuscitators, will become the change agents, because that's what a teacher is, a change agent, rather than see themselves as a curriculum follower. They are curriculum makers.

The student is growing then. You have used that metaphor over and over again. Can we just try to look specifically just for a minute. My hand is doing things like that and I don't want it to do that. Look at what is going on. When a student comes in what do you hope is going on?

R. Well for one, I with this ******** program, there is no way these kids are getting out of here without understanding and knowing how to teach. The skills and strategies of education.

So how does that happen to them?

R. That happens in E********, pre-internship experiences, internship experiences, post internship....

They are taught something

R. They are given, yes, I believe they are given the basis for the skill development. They are given that information. They are given that, what I was talking about, the curiosity. But they themselves have to build that skill.

How do they do that?

R. They build that skill through the practices that we employ in the faculty.

And what are those practices?

R. Through the preinterning

And what goes on in those?

R. Well, the chance to try out the concepts and ideas they get in through ******** and through their classes.

Try them out with kids and with each other??

R. Yes. In real life situations.

And then what happens to them? what do they....
R. They take that information and they reflect on it. They are required to look at what worked, what didn't. Why didn't it work? What happened? They are required to look at themselves. And that really projects from that class I talked about earlier, the experimental one, where the student in fact became highly involved with his own learning process.

Who is controlling this involvement?

R. I would, well, I think it is a combination between students, faculty, just physically I would say student faculty and community. The schools that we work with. These are the three agents that are controlling what is going on with that learning experience.

What is the word that you most commonly use to describe that learning experience as you would like to see it from the beginning to the end. What is the word that usually pops into your brain if one does?

R. I suppose development pops into my head, cycle. [said thoughtfully] I think of the preinternship and I think of the supervisory cycle, I think of cycle—those kinds of things.

So then development and cycle are those other kinds of things we have been talking about. You would describe, use them to mean those things that we have talked about to this point. [yes] So let me see if I'm right about that those words to mean a growth thing, something that happens through the provision of information, the practice of some thing in regards to that information [uh huh, and reflection on it] so the practice is focussed on that information and then the reflection is focussed on the two together. [asserting sounds throughout]

R. I would think so. I mean I know that there are still individuals who become what I consider to be very negative when they think of those things or some of those issues..about teacher education [tape ends abruptly][tape turned over]
You had just finished saying to me that you think that the concept of development which we described is what is one that almost everyone here is likely to identify with although there are other people who feel ...

R. Negatively towards it. And I'm not saying that everyone has to agree on issues like that. I do my own observations and I think well if they are really unhappy with the whole notion, why not find another job?

So you would agree with the notion that a faculty should have a common philosophy and a common goal?

R. Oh yes, I do I do.

And that everyone should fit into that?

R. Fit in from their own parameter and fit in from their own ....I suppose like a political party.

Nobody has used that analogy.

R. I suppose that you need to have a strong belief value and belief, related to a concept or ideas. That is when you form your party. I think in terms of a faculty being a unified party, but yes there can be factions within a unified party. Which they are in quote, real life, in terms of politics. But, if it is viewed that way there is a common goal. You may have your disputes about the fine print or the fine tuning of a concept or idea but you are all in the same direction, or else you are in a different party. That's why I say if you don't have any belief in that goal and ambition for a faculty, then maybe not be there. Find another party to join.

I wonder what that would look like if it were worked out.

R. sounds [unheard] interviewee repeats softly]

Germanic? oh..

Oh no, [laughs]
Q.K. Why do you have that sort of reaction to what you just said? Is it because... why do you think that pops into your mind. [said with an incipient laugh, as the interviewee is also sounding amused.]

R. What the last thing I said? The Germanic

Yeah, the Germanic

R. I think .....well...... It could be viewed as very radical. I don't think it is radical but I think it could be viewed as radical. When we developed the ----program, I said "There is no goddamn way we are going to have ---educators going out there and maintaining the stereotype of the ---educator being a vague sixtyish person who wanders around saying everybody can be creative. ....But doesn't themselves, or ...teach, what they do is perhaps do, in -- perhaps, do a minimal demonstration and then wander around , you know head in the cloud, and wonder why ******** is a frill in the school system. I said that when we developed the ******** program, those kids, our students, will know how to teach. Teach not only through a demonstration method, which is one approach, or a lecture method, which is another approach. They will know other approaches and be able to fine tune those other approaches. So that in fact they can get at the content that many of us debate about, in terms of what is important or not important in terms of students, our students to be able to teach with. Or how to find the content if they don't know what it is. How to dig for it and get it so that there will be no question of the standard and quality of what it is that they are doing as an educator first. Educator first, not ******** person, but an educator.

So C---- dug for that content when she did all those things about the music. And she knew [yes] what that content's structure would be like because you had taught it to her. [yeah! Is that fair? [yeah....]! This faculty has grown, changed?

R. Well, thank god, I wouldn't want to stay here if I couldn't.

Fascinating.

R. I think what is really exciting about our faculty is that we have been given the opportunity to grow if we want to. There have been no road blocks set up for faculty to
develop ideas, concepts, and beliefs into new ways for program development in this faculty. No road blocks have been set up. In fact it has been encouraged. Our faculty have been encouraged to innovate and make change for the better.

Is this a function of the administration or of the faculty as a whole. Is this some kind of norm within the faculty or is it an administration....

R. I think that it is the faculty as a whole. Well I know that working with the ******** program. For eight, I can't believe eight years. If I know I remember when you guys started it. I Yeah, yeah, and that came from faculty encouragement. It came from, I can remember M--[same faculty leader earlier referred to] saying Y--when the hell are you going to start something? Like start something [emphasis] so what I am saying is individual faculty encouraged that thrust. R--[a former dean] said to R-- and I, he said to us in his office, when we had some ideas together. He just sat and sat and listened to us and smiled. behind his desk and watched us jabbering away and when we were done he said you two could sell toothpaste to people who don't want or don't need it. Which I thought was a really good comment. And then he said go for it. He said, see how far you can run, with that idea.

So that kind of Dean really helped, and that kind of senior faculty really helped.

R. Right, encouragement.

What...

R. It wasn't, we didn't get.... Well now, we don't do it that way or gee that won't work. We didn't get that kind of response.

Would you think that new young faculty coming on now would feel the same way that you did?

R. I think so. I think they would. Well, I've seen it. I've actually seen it happen with new faculty, younger than myself. Joining the ranks.

Now, when you first came you felt constrained somehow.
Initially, until I found out the.... I suppose, structure of faculty, understand how it functions in the first place.

So if a new faculty member comes to work with you, and I know they do, what do you want to teach them, what do you want to do with them?

R. I think, allow them to develop, first of all, to be quite frank, we have new faculty, and point of selection was whether or not they had some, not only their own personal abilities, but also their knowledge of our program and whether or not they were able to have some allegiance to that concept.

So it is important, that everyone is able to accept a certain philosophy. You live what you said earlier.

R. I think, yeah live what you are and do but I also think that for a small faculty, in order for it to be productive and effective, I suppose for a faculty that in its own right, three hundred members, and there are some.

There certainly are. I work in one.

R. That there might be groups of persons, and it would be even more difficult to maintain a one party situation.

I certainly have a sense, however, there are images, when you said that of a centipede with its legs going in all directions.

R. Yeah, going nowhere.

But that only shows how completely the philosophy that you are talking about is part of my view of the world as well.

R. I think that...well maybe.....how can I put it? I think that part of what our philosophy is in the faculty is to give you more freedom rather than less, but it is sometimes seen as a constraint. Maybe the way I have been talking it seems very restrictive, but actually it isn't. It offers more opportunity for flexibility. It offers more opportunity for development and growth. more opportunity to risk take. But then you
have to understand those things within the philosophy in order to risk take. Or you might withdraw and not want to risk.

Because it scares you?

R. Yes.

In which case you probably wouldn't last too long here.

R. Or it could be that you yourself, personally, are not a risk taker. We put you into a situation where risk taking is part of the pattern, you may not feel comfortable. So you would rather not be in a situation like that. You'd rather be in an environment that is a maintenance place, rather than an innovation place. And I know that there are some faculty members who would here, I think would rather be maintenance crew rather than be innovators.

You are a little unusual in this faculty in one way. You are as involved in research and writing as you are in practicalities. You are editing an international volume right now. Tell me about doing that in this faculty. Because lots of people tell me about the difficulties of doing that in this faculty. That you can’t do it. Tell me about that part of you.

R. Oh I don’t think, I know, difficult, yeah in terms of time, but you can always find some time. I know that time seems to be a big item of debate around here constantly. I suppose if you are making change and innovation time is important, because if you are doing innovation and change you need the time in order to, first of all get your own concepts in order, your own beliefs and change, so you have to do an analysis yourself. To look at current conditions and to change to what. So that takes time.

Were you given any time off from your duties as you and R--- developed this program. [no] Which I think ought to .... is sort of considered internationally to be a...

R. No we weren’t given any time off. We spent extra time. It became important to us to, while we were maintaining our ... which was our regular workload, we had to have the professional attitude, I suppose, to work, we were forced into spending extra time if you will, out of the nine to five concept. We wanted to.
And you wanted to because of that sort of freeing stuff that the senior people had

R. They said go for it, run, how far can you run with that idea, can you make it work? I mean we were given the challenge, and so given the challenge we felt good about spending the time. I mean we, as you know, spent hours after work, on the campus, on the weekends, writing, rewriting. [I remember]

Being angry and frustrated as well as being excited?

R. Being angry and frustrated, the whole process of change. Preparation for presentations, trying to cover every corner that we could getting ready for debate. Being ready for debate, being ready for the challenges that we knew we would be faced with in terms of change. Change itself generates that kind of debate and you have to be aware of that and try to become less and less defensive. As you said.

Good god!

R. You said that, way way back.

Did I say that?

R. Don't be so defensive. Y---Yes you did and I thought a very good point.

R. Not too defend is different. To defend a position and not become defensive about it. That's different. I learned as I did the process myself.

But I think we have put together an awful lot about belief and we've talked about an awful lot of different concepts. Is there anything, any conceptual stuff that I've missed out on, that I've missed talking about, that you wished you had the opportunity to talk about.

R. Well you hit on one thing. I was just thinking about when you said about editing that book. To me it wasn't a burden it was great. Because what it does is.....sure its a great honor as an individual but I also feel, and this is sincere. I mean it can come out looking and sounding like schlock. [well we won't let it] but I really think it's an honor for me, to represent the faculty, to represent the faculty of education to also represent the faculty, the U of R campus, at an international level. I think that that is what it is all
about. I mean I can be the vehicle but I think what it is all about is our program here on campus.

So you really really feel that this is something that a group of people did?

R. A group of people did it and its a group of people that, and I mean we have had guest speakers come in and say to us they can't believe what goes on and our program is only one part and a reflection of our teacher education. They can't believe, for one that a group of people can actually sit down, and yes we have our differences, but we can actually address the larger issue and project a philosophy for a program. They said part of the reasoning. For example Maxine Greene is in this book. She came up and said to us [wow, high compliment, such a clear mind, that woman] She said that "there's a quote from what she said. She said I was impressed by the program and in a sense by our program in fact, she said she was impressed by the quality of the scholarship and colleagueship I believe that your university may someday provide the kind of pilot program that one day attracts attention throughout the continent. It is an important undertaking.

That's fascinating. How did we move to that stage. Keep talking I don't mean to stop you.

R. How did we get there. To do these kind of things. [thoughtful pause] I suppose it becomes larger than the individual. I suppose it is not, that is what we were talking about. It is larger than the individual faculty members who make up the program. It we become part of it rather than it is mine. It is not mine it is ours. We act to, I don't know, prairie heritage or what ever.

Cooperative heritage? Grain growers?

R. Working together we can make something, individually, yes we are important but we are not as important as the total. As important as the whole functioning as a unit. And I think thats, thats what Maxine was getting at. She said she had difficulty seeing this happen at a large campus such as her own at Columbia. Because the people don't even talk to each other. They talk maybe hello, but they don' talk about issues. When they do
talk about issues it is put in a formal forum. Nothing ever changes or it takes so long to change by the time the change rolls around a new thing is, their ideas have also changed by that time and its passe.

It's so interesting for me because of course the other part of me lives at UBC, a huge, huge place. I mean I haven't yet met everyone within the Faculty of Education. Yet it is attempting a faculty wide programmatic change of the kind you are talking about and its going to be interesting to see

R. It will take a long time. Well I know to generate the ******** program came quicker because we had the solid base, I believe, to build from.

Of the elementary.

R. Of the elementary, secondary program. As a platform, as a model and we insisted that our Educators become good teachers first, **** Educator second, but a good teacher first. Which has caused all kinds of problems as you know but has ..........

All kinds of problems with...

R. On and off campus, but its changing. Its changing. We're getting referrals that we didn't get from the ***** faculty.

Some where in this there is a sense that you started to say something that I cut off when you did the Maxine quote.

R. Oh that's when we were talking about the whole notion of freedom and more freedom than restrictions. I think when the professional component of our programs are viewed as freers rather than binders. And I still , think, how can I say this. That some of the people who still believe , how can I put this, who are actually doing the process of the classes, don't see it as a larger... they see it as a skill builder. They don't see it as a larger issue.

I have a picture in mind.

R. They are not opposed to it but I don't think they see it? Its more, oh god how can I phrase it? It becomes more their focus becomes more on the particles of the
professional studies than what is, what it together will do for that individual. Does that
make sense?

It makes all the sense in the world.

R. I think they are good people and I think they are strong supporters of the
concepts but they...

But they don't see the power of the concept?

R. They don't see the power of it... in it.

I think that makes a good deal of sense and in fact it will be very useful in looking at
the differentiations between concepts. People who see the concepts as particulars and
people who see the concepts as powerful generalizers.

R. Because I think it's when you put the pieces together. You know how we put the
lesson plan together and rip it apart and put it back together, I think all those pieces are
there and yes we take it apart to look at them, but maybe we don't put it back together
enough to look at them, to look at the freedom and flexibility it gives us. For example
knowing the skills and strategies and the professional components of, of teaching,
shouldn't that make our students more professional than less professional? But sometimes
I think the debate comes along when they are viewed as making them less professional?

More technical?

R. More technical, more... less content oriented, blah, blah and all those. I think
if a good job is done with it it makes the individual a stronger candidate for a professional
approach to teaching. Where they are not the followers, where they are not the lemmings,
where they are able to take out information, internalize it and really apply it in their own
life style as a teacher. Where they are in fact not following the curriculum guides style of a
teacher. Where they can say yes I can take a curriculum guide...The curriculum guide is
not important. Knowing the curriculum guide is not important. Knowing where the
curriculum guide is and what it says and then I will orchestrate within the curriculum. .
That is what a guide is. Or the whole notion that reading language arts, because a school
unit has bought a certain series that you follow it page by page by page. It is to teach children how to read and how to appreciate words, etc. etc. So you understand that yes you can adapt the series. You can debate the series. You can elaborate, alter, in terms of the tracking with that curriculum. You can make it work.

So you are talking about both teachers and faculty members who are autonomous in the sense that they don't have to follow any prescribed route and yet they move toward a similar dream or philosophy.

R. Yes.

That's a fascinating concept.

R. It's almost like the notion of....sometimes I'll talk about in terms of creativity. Students will ask the question what is creative? What is creativity? Well the whole sixties notion of being creative is everyone does their own thing. Which was a nice notion but you really can't do your own thing until you have some equipment to work with and that equipment is some of those skills that we teach in professional studies. To be a creative teacher you must have the choices. You have to know what the choices are for you as a professional person. The creativity comes in the selection and use of them.

I have a feeling that we ought to come back at some point, not today. But we ought to look at what that process is for student teachers, what it is for you to teach them to be that way. Because it seems to me that we are talking about something that includes everything we have already talked about. Something that is about decision making, about activities and choices. [yes, yes] The tape is almost over and it is time for me to let you go on. I feel really guilty.

R. Yeah, I think it will get back to this whole notion of how do we teach here in order to have our students become professional people.

R. I mentioned to my students the other day that in a senior class, they said can we do it this way. Its a ******** class and they know that I understand that they are working with all the other ******* forms. They said can we use other ******** for examples.
I said in this class. Almost blew them away. They were quite angry with me. And I think many times the things we perhaps do, and should anger the students. Not mad, mad, but in terms of forcing them to ask the question. Raise, why not, why can't we? A---was an introduction to this and then the 390 that B------ taught was....I said this is a ******** class. What I want you to do is grapple with the model that I am going to show you. And I said, what's coming down the road is you can use that paradigm or model for areas. But you have to understand the model, paradigm, first. Initially, then you can transfer all of those things you are collecting and working with into another model.

That's a lovely example. We are going to get a click here in a minute so. Thanks.

[tape end]
Sample Interview Two

(Experience teacher in first year as teacher educator.)

I'd like you to talk to me about the work you do. About what it is you think that you have to know and what it is that you have to be able to do in order to do the work. In a way that you would describe as doing it well. [Pause] When people ask me what I mean by doing it well, I usually say "if you were in the classroom watching young teachers teach after they have graduated you would feel comfortable with what you saw." So what do you need to know, what do you have to be able to do, to reach that end. Usually people have questions first, because that is kind of a broad way of phrasing the question but I don't want to restrict answers in any way. Because all I want to do is talk about it.

R. Well, I think first of all, you really, I think what you are asking me has a great deal to do with our notions of what constitutes teaching. Because you are asking me here, what do I need to know in order to assist these people in becoming teachers, and more specifically in the areas in which I teach.

Okay, that seems to me to be a very productive way to begin. What is it that you think teaching is, what is your ideal teacher?

R. [long thoughtful pause] difficult

A hard question [laughter]

R. Yeah, I suppose one always goes back to models of other people, by whom we have been taught.

Tell me about some models.

R. I think probably we those teachers who ....who suggest that they have a sound knowledge base...surely...I would want my students to have some sound knowledge base of what they are going to be teaching that is content. I think that is only one part. Surely you could have a -- a very sound content base without necessarily being a very good teacher. I know that this is a kind of old...[no, its a definitely unsettled question] uh huh.....
Well, let's look at that one a little, just to set a pattern. If your ideal teacher, the kind of teacher you'd like to turn out as a result of your work, is someone who... what do you have to know to do that?

R. Well, I think that I have to have, I have to have a very strong grounding in the area in which I am attempting to teach other people, ... I'm not certain that we can teach other people to teach... I'm not at all convinced. I think we can give them some awareness of what constitutes the teaching act. I mean, well we do that by our mere presence in front of a group of people. We, consciously or unconsciously model certain kinds of behaviours. [the last word said very slowly and thoughtfully] But that's only external, that's external and I'm not sure that we can judge the goodness of a teacher by those kinds of criteria. So, I have a lot of difficulty with some of the things that are bandied around here, in terms of targets and those kinds of things, a kind of breaking things down into parts, suggests to me that people put the parts back together again and that's a complicated process, synthesis. I'm not sure. That's complicated for everyone. I'm not just saying.....

Well, how is it that you think then that one gains expertise, both in the knowing and in doing in something like teaching.

R. Well, I think it's a bit like the artist, who approach it... I mean there is that aspect of teaching is artful, It is like someone who is going to take a block, like the sculptor who is going to take a block of concrete or whatever and...... uh..... become..... word escapes me... [voice so low and thoughtful as to be very difficult to discern individual words on the tape]

Some medium, stone....

R. Yeah, some medium that he is going to be working in, something that we chip away at constantly. I think that we are always in the process of becoming in teaching. I don't think we're ever there.

What does that artist, lets take the artist in stone, what does he have to have. I mean if I chipped away at that block all we'd get is a block of stone with some chips out of
What does he or she have to have in order to come up with something that Moore would have come up with or whatever. What's the difference? What do you have to have to do that?

R. Well, I suppose some technique, some notion of what it is you want the finished product to be. But that might happen in the process of chipping away. I think that we, that we want, particularly when we are in the business, if you like of training, oooh that word, people to teach, I think I want them to have an awareness of the complexity that's involved. I want them to have an awareness of the ....Yeah, let me use this word, although its loaded. I want them to be curious.

How do we help...can we help someone to be curious?

R. ........I think we can if we attend to the kinds of questions we ask.

So then one of the things you think we might need to know is what are the right questions to ask and how to answer them?

R. Yes

Where would you learn that?

R. ............yeah....ah....Well I think you learn by conscious attention to the language you use. I think that often people who are becoming teachers....They need to know, in a very concrete sense, what kinds of information are elicited by the questions we use. And I know that that's..but...I'm not quite sure how we move beyond that awareness. I suppose that then there has to be some kind of practice in. My students in the **** which is really looking at the course. really centres on the use of ***** as a way of teaching, as a way of learning, they've been leading one another, peer teaching, very short because this is their first year. Of late when I have this great desire to leap in and tell them. I think teaching has a great deal to do with holding , with the withholding of expertise. We are so eager to, and with children, to rush in and tell them things when they already know so much. It's not to fill them in. Its to pull out what they already know and to work with them. So with my students lately, sometimes, so that I don't become overly anxious, after
all this is just first year, I have been just writing down what they say. Then drawing their
attention to the use of their own words. What were you asking your class when you raised
that question just then? Were you conscious? I think ******** *****, who is great-was, great
British educator in the area of ***** education. suggested that this was at the heart of
teaching. The questions that we ask. So that we really need to be aware. To make
students....well I don't know if we can teach students that. I suppose in the broad sense we
can. But then we need to make them aware of what they are doing with their language,
their own language.

When you make them aware of that, the student teachers, you, you just give them
their own language back.

R. Yes, I just write down... Well they are just overwhelmed. I mean there are many
other things that they are concerned with. And again these are people who are just
beginning. The teaching of one's peers is not the reality but it is as close as we can get.
And I think that it has some value. It forces them into a teaching situation whether its
....well its not the point. Whether its the reality...[Its a reality?] But it is a kind of reality.
But it still places them in the centre of this act that we call teaching, so I guess I am trying
to make them aware of the language they use and particularly of the questions they ask.
Which are going to be absolutely vital to the kinds of Drama work that proceeds.

So you ask, you give them a question that they've asked. What do you want them to
do with it now that you've given it to them? What do you think they can do with it?

R. Well, I hope that for another time, or at least in their own consciousness, they
might, if nothing else, be aware of the significance of the way, they question. Now whether
they can go out and you know cross from that kind of theoretical, you know from that kind
of abstract sense, into implementing is of course another thing. But surely that awareness
takes them a little way in a direction which if one never raised the issue at all then they
would certainly, they would as far as I'm concerned thing that ***** and now I'm speaking
of my area, be get the children doing [emphasized] things.
You would like them to recognize that ***** is thinking...

R. Well that it has both active and passive and that we switch from one to the
other. In the kind of ***** I'm talking about, which is contextual *****. Where we have
some specific, where we have a human situation....

If I was to call that situation, which you have described to me, if I were to call it by a
word that is very standard in education now, if I were to call it a kind of reflection that you
want what would you say?

R. Oh yeah, at the centre. I don't think without that act any learning ever happens.

An interesting concept, that concept of reflection that we...

R. and I think again, that that is one thing that we can help students...going back
again to my area ..that central to the learning that is going to take place in the drama,
must be reflection upon a specific example . Like this morning a student led and very
skillfully, her peers into a *****, I give them fifteen minutes. That is certainly what they
can cope with. They can certainly write out, and talk about, where they'd go but I just
want to give them some little exposure to teaching, if you will. She negotiated with her
students and I think that's important, as to what they wanted to do their ***** about.
She assumed that they had studied, oh In ********** that they had been studying about
emigration. So she asked them if they would like to do a ***** about a group of people who
were leaving their country. And through quite skillful questioning she got them to agree,
and so she got the focus where they were a group of people leaving England because of
religious persecution, and then she stopped them because she had asked them. then to go
back into their village and just begin to do what it was, in terms of some kind of mime,
what they did for their living. And then she asked them to freeze and she went around one
by one and she asked them what was the one thing that they would really miss when they
left the country. Now that's powerful because she was asking for reflection in role, as
people who are leaving, you know., as a kind of universal thing. And I have done this kind
of thing, so when were back to teaching, I mean she was in a sense pulling from things she
had seen me do, pulling from things she'd read. There had obviously been some kind of transfer, in that and in other things that she did.

_She did it with sensitivity; was that the way that you'd know there had been transfer, that she'd gone beyond just watching._

R. Well, she yeah, she did it in her own way, she brought it into her own style, which was, .. rather quiet, she certainly wasn't asking for action packed drama. She was doing what I think is very important. She was slowing things down, so that it began to take on the reality of people living through what is in fact an as-if kind of situation. But she did it with a kind of quiet authority.

_How would you expect to see that young woman if she continues in the program... what would you expect to see her like at the end of the program? Can you describe what she might be able to do at the end? Can you describe what she might know and be able to do at that point?_

R. I think she'd be, if she continued and as she continues, I think she will be ...I think she will gain a lot of confidence. She will obviously move from where she is. I think it's that thing of curiosity, of kind of struggling with, struggling to find her own way through a wide variety of possible ....

_We take from here and we take from there as we go along. We give them things that they can take and we also put them in practical situations where they can see it in action. [yes, uh huh] what's going on with them? What's their reflecting, what's going on with them. What's the difference? Because they are different, clearly you agree, but it is hard for you to say what the difference would be. You saw that there would be a difference. She would be different then than she is now. What's happening? What's causing the difference? But is that difference a process, a product? I don't even know what language I want here, but......_

R. [long reflective pause] Well I think probably it would be ......for this student and for those who grow a great deal of it has to with their thinking about what it is ....we're
back to reflection. Because she is reflective and she's critical and she is able to operate by being in and above her teaching. She is not only teaching but she's got this other level of awareness of I'm doing things but also while I'm doing them I have a kind of other eye almost, you know? [that's a neat way to say it] ----would call it cool strip. which I think is a nice expression. That we are always conscious of the implications of our acts. How we teach that......

**How do we do it yourself? Do you have to do that as a teacher educator?**

R. Oh all the time. I mean that it is one....if you don't do it then what are you doing? I mean surely anyone who is involved in any act of teaching will have that kind of......no I suppose they don't but...... I think that is really important, that we have an awareness of signals all the time. What seems to be working here, what doesn't? How might I do this differently? That wasn't so good. You know I find myself speaking it out loud sometimes, before they have a chance to raise a question, saying that's a rotten question. I mean what was the question asking for? or it wasn't clear.

**What are you modelling for them when you do that?**

R. Good questioning to begin with [laugh] I mean the significance of being aware when what it is we intend seems to be happening.

Certainly it seems to be something we need and that's the first time that particular notion has popped up in all of my tapes. Although reflection has. It is fascinating, the views of reflection I'm collecting. [uh huh] You used the beginnings of a metaphor, there, that I'd like to push you a bit on. You said when they grow you drew the word out a bit, you said....What do you mean by that?

R. .....................well, I suppose growth suggests that they come in at some starting point and hopefully expand, move. I think it's movement. Movement based on awareness, movement then based as well on a kind of ability to reflect. Movement based on a kind of curiosity as to how might I implement certain practices. How might I bring together my notions of theory and practice? I mean, that is 'au courant'.**oh yes, terribly.**
But also, I think, at the heart, people have been arguing theory and praxis since Plato and Aristotle got us started. There must be something.

That, by the way, is a set of notions which I expected to hear more of than I have. I get so fascinated by this idea of 'growing'. I'm curious as to what you think. I'm curious about a couple of things. Growing is directional. Who controls the direction? In which they grow or the ends to which they grow?

R. Well, I think it, I think it's a kind of circular things. No I think it grows by those of influences that impinge upon our lives. You know, we act upon and yet we are acted upon.

You, as a teacher educator, is it your job to become a definite influence, to move people in a definite direction.

R. I hope I do. I would say I strive to influence them without being dogmatic. I strive to influence them to question—the purposefulness of what it is that they are doing. The intent, the intention of what it is is that they are doing. Even when sometimes I want to scream because of what it is that they are doing. I mean that's.... I've often felt like I might just scream. It seems to me that it is just such an endless journey, that unless I get the feeling, and one does, that people look at it that way. It worries me when I feel that they are looking for recipes. I want them to look under the recipes. There is a little cartoon around here somewhere. I don't want to catch fish for them. I don't want to give them the fish. I want to show them how to go fishing. [that's neat] That's not original. [no, but it's neat]

The thing that I....there is another word that I've been deliberately not throwing in, but I will now because it's so curious. You talk about growing and reflecting. You clearly have a as your image of a teacher and a teacher educator, a thoughtful person. It is a very open ended image, as if that person is someone you could not picture now except that they would be thoughtful. Is it fair to say that?

R. Yeah, that all of that thought-full....
Full of things to think about.

R. Yes and questioning I think.

Yes, you are very consistent on that. But there is a word that is used a great deal and has many meanings, by people who talk about growing. They also talk about developing. What does that word, how does that word hit you.

R. ...[long thoughtful pause] I'm not sure that I've ever thought of the sort of semantic difference between what we mean when we say someone is growing and developing, I guess I think of them as almost kind of synonymous.

Some people have opinions which are different. [No] I guess, well one of the things which people sometimes speak of developing as a rather restricted notion and growing as a freer, more natural notion.

R. You see I think....also that its kind of a tricky business because I'm not so sure that we can so clearly delineate when growth occurs. I think growth occurs when we're not aware of it, you see I'm not sure that it is conscious. That's because, I guess, that I've been influenced by people like ******** and journal writing who would suggest that there are points in our lives, that there is growth growing on at all times, but that there are times when we are aware of it. Or sometimes we seem to hit a plateau, where things never seem to change. Which may be, according to people like ********, a time when many things are changing. You know?

Yes I do know. It's also clear to me that the logical, that logically connected to the notion of people growing, is a negative notion. The notion of people being harmed or of 'negative growth'. Bad things happening to you. Is that anything.....

R. Yeah, because I think we can grow in many ways. We can grow outward, we can grow inward. We can grow towards good, we can grow towards evil. I mean there is all kinds of ....[yeah] I suppose when generally think of it in a sort of positive way. People advancing towards an ideal state. I think that is the most common usage. But, I suppose
It's possible to grow, if it's possible to grow in goodness, it's possible to grow in its opposite, isn't it?

Logically, at least in the way our language works.

R. I'm really caught up with words aren't I? [tape over]

I'd like to find what concepts --- my problem is all about words. Because I find it fascinating sitting here, to find out about the color that they have, what we do with them. What do you bring to the job that enables you to do this well. I think that you believe that you do, and I suspect that you really do.

R. I bring my own curiosity, because I'm always curious as to how people operate. As to how people appear to act. [pause] I suppose, yeah, I am kind of interested in otherness. [hm. so.] I mean I think that I, I mean that we, that each of us carries his own reality, so that they indicate sometimes, not always, none of us do that, they indicate the realities of their worlds. Through their words, actions, too. Many signals.

That's interesting. You know that I spend a lot of my time working with people from other cultures. I suspect that that is the genesis of my fascination with many of these things. They are questions that are hard to answer, ask even, certainly hard... Is there something that if you were doing this instead of me. You with your own fascination with looking at the world, is there something that you would be looking for, asking about, that I'm not? Things that you were trying to understand but that are missing from the language here....

R. [pause] I might ask people to write, but then that's just a different technique. I'd still have to focus because I think a lot of what you're asking is very, I mean these are enormous questions. I would find the act of writing easier in terms of coming at something more precise, more concise.

I thought about that. I thought that might be more demanding.

R. That is more demanding of people, of their time. Writing is much slower.

What else?
R. Well, skill [skil?]. What do we mean when we say that? I don't think we all talk about the same things. I think that happens too when we teach people. There is an assumption with certain words that they carry a common, an understood meaning. I think there is an ambiguity in language, looking at the you know sometimes we suggest we are talking about the same thing when we....I'm not quite sure, you see, that we know what we mean when we are talking about skill [emphasis] [If I was sure I wouldn't be doing this.]

You know, because, well I mean, I can see it as having a variety of meanings.

What do you use it to mean?

R. Well sometimes, I think, I use it to mean external and and specific and other times I think it is much less so.

More like competence?

R. Yes, for example I suppose.

Well that is interesting. And I do appreciate it. I don't want to keep you forever.

You know what I've been doing and I don't know if this is a good idea. When I feel like people have talked about things that are important, I just stop. I'm not sure that it is a good idea, but I have been doing it all along so I think I'll continue. It seems to me that we have talked about some important ideas. I was concerned though because you came so quickly to some of the ideas which have been central to people, that is why I asked you about other words because it concerns me that there may be something that I am missing but maybe when I give you back the transcript....

R. Two....that thing still running?

Yes, you want me to turn it off?

R. No just wondering. While you're asking me about right now at twenty after three on a Monday afternoon, when I don't feel that this is the brightest part of my day, I don't know if that has something to do with....you know the time of day, the day.

Or the fact that I'm feeling low energy right now.

R. Yeah.
That may make a difference and yet it's fascinating that we have covered so much. This is going to be a very valuable tape.

R. I know that I would be told that I do it well, but in terms of what. I think of very general things like I think that I am specific in my expectations. .....to some extent. I think I have a good rapport with people that I teach. That they feel comfortable, quickly, or relatively quickly. That I don't come across as he who knows all. That I suggest to them that I am also in the becoming, not that I would use it sounds a little bit pretentious.

It sounds almost arty...

R. Well,,,not really so much as phenomenological and what does that mean to them?

Its very phenomenological ..........??

R. You know, [existential] But I have, I found this semester, the more you do things, you want to change things. Like sometimes really you make a decision and you think oh---- now my students for example, these first year students in teaching and this is only a little bit of teaching they are doing. Its been very time consuming. I wonder, I think uhhmm. Has this been of help to you? Oh yeah [speaking as a student] Well how tell me how. Because we have to do it. You know they will be as straightforward as that. You know we're teaching, we're doing it.

Do they show any signs of, awareness of, the effects that of this or is it something that right now they are just doing?

R. No, I think they do because when they've done whatever it is they do, we stop and look at it. And sometimes I try to focus for them "let's be specific. What did that teacher do in terms of grouping, and of questions?" And you remember because they are different. And sometimes they are the class and they can't but there are some things they can. What did she do to begin the class? Well sometimes they say oh well she used narration, or she used....tableau, okay, so they are beginning to become aware of..... here are some of the things you can do.
So it is a different approach. Rather than tell them you can use a tableau, you have shown them before or?

R. Sure because we have spent some time in the doing of this kind of method, where I have led them, where I have demonstrated.

So now you have moved, in November, from a lot of demonstration on your part to giving them time and space to put together...

R. Yeah, because a major in this class has to be the planning of a complete *****. And I give them the things that...the ingredients if you want. And then there are books out there. Some of the better work, the more recent work. And it doesn't bother me that they imitate some of the structures otherwise its...you know. I mean even the ones that I would say are very elementary, those are the ones nearer the beginning. I think maybe I would wait a bit longer. But then you never know. Things are different semester to semester. I mean there is always ...I am always a bit ambiguous. You say oh my god. Look at that. Look at what they.... And other times they're not...you know [yeah] I mmyself. I guess, I really I want them to be able...I want them to be at the beginnings of doing it themselves. You know I would remind them, remember, this is the kind of work we are doing here and at the end you will grow into the doing of it. That's when you improve through the practice. Until they are confronted , until they encounter, children they won't really know. Because that will be the reality. And for some of them they won't be able to do it at all. And I'm aware of that too. You know. Because its a risky business too. [Yes it's a frightening business] This kind of teaching.. Its much easier. There are other ways of teaching that are much much more controlled than this kind of work is. [fascinating interaction] Well yeah because you really, I mean, if you're doing the work honestly, you're really saying "I'll build the work upon what comes with the people." You know I certainly have...I can go in with the notion that we will do this, but often I will ask them, I will ask children, "What would you like to do a ***** about?" You have to have some notions about what might I do. You have to have picked up some signals about.....I mean if the kids are climbing the
chandeliers. you need to know some sound control methods right away. And these kids will mention this already. They have to do a weekly reading for me and they, --would love it, they have to do a summary. But otherwise I would have some one do a story or a course or [unreadable] I put book on reserve for them. They have to go and search etc. so that they can choose all sides. Well I give them somethings that the whole class have to do. I come across some things that I think will be really valuable for everybody. Everybody gets a copy. Copyright rules and that..... [small laugh from interviewer]

You're talking now really about that interesting balance between discipline and freedom that all of us have. Between requiring discipline of them so that they will be sound in knowledge and giving them freedom to grow.

R. You see there, it would be the same in any program, but by the nature of our program I think we are a bit overwhelmed. Suddenly to be hit with five ***** areas is a lot you know.

It must take some assimilating.

R. Yeah. and some of them are young. We talk about..it's interesting to see how those who are older, somehow just on the whole seem to cope better. Maybe they are more organized. Maybe they are simply older. Matured. You know a lot... I don't know about people coming right out of high school..[into professional training] No I'm not sure its the way to go. [It's another one of the great questions isn't it?] Yeah and I think maybe a liberal arts degree. You know the Carnegie Institute, that was one of the findings of their research, so I don't know about that. You know that was one of their big suggestions, having a degree.

You can always take..

R. You know the whole notion that we can teach people to teach through the medium of ***** [skeptical sound from interviewer] but on the other hand isn't this what I am doing in my class to some extent. They have to be aware of the moves. I'm not sure you see that students are able to put all that together.
I know, we must stop. Thanks so much.

[end of tape]