

A STUDY OF EDUCATION 406:
AN ALTERNATIVE MODEL OF UNIVERSITY COURSEWORK
BASED ON THE THEORY AND PRACTICE OF SELF-EDUCATION

by

Peter Norman

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APPROVAL

Name: Peter Norman
Degree: Master of Arts (Education)
Title of Thesis: A Study of Education 406: An Alternative
Model of University Coursework Based
on the Theory and Practice of Self-Education
Examining Committee
Chairperson: A. C. Kazepides

M. Wideen
Senior Supervisor

S. Shapson
Professor

T. J. McBurney
Deputy Superintendent of Schools
Surrey School District
External Examiner

Date approved December 2, 1986

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A Study of Education 406: An Alternative Model of University Coursework

Based on the Theory and Practice of Self-Education

Author:

(signature)

Peter Norman

(name)

December 2, 1986

(date)

ABSTRACT

Education 406 is offered through Undergraduate Programs in the Faculty of Education, Simon Fraser University and is designed as a five credit, classroom-based course made up of four interrelated components: a supervised, field-based project; problem-solving seminars; input on the theory and practice of implementation; and related coursework or other content. It is intended to address a number of long standing limitations of "traditional" university coursework, take advantage of existing strengths within the Faculty of Education and provide for maximum flexibility in delivery. This study describes and analyzes the design and implementation of Education 406 as an alternative model of university coursework based on the theory and practice of self-education.

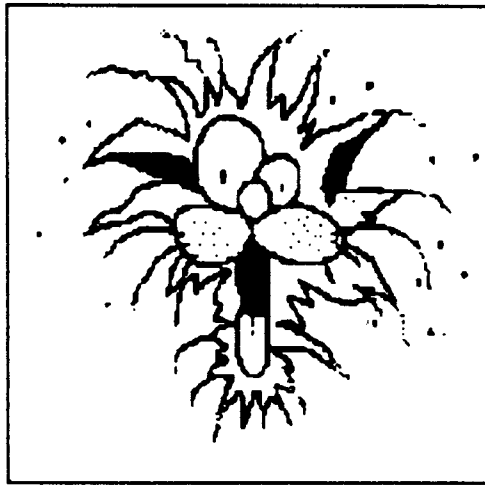
Education 406 draws from several fields of inquiry which are noted throughout the study. The literature review emphasizes the theory and practice of self-education as a distinct area and as a theme which pervades other fields from which the components of Education 406 are drawn. The basic principles of self-education and andragogy are outlined with an emphasis on the institutional applications of those principles. Self-education is discussed in the context of a post-industrial society and a case is made to view Education 406 as an example of program design well suited to the imperatives of life-long learning.

Robert Stake's countenance model is used as a template to track the antecedents, transactions and outcomes of the first three pilot sections of Education 406 offered in the Spring of 1985. Observations in respect to

the planning and implementation of the course were systematically collected over a two year time span. Participants in the pilot groups of Education 406 completed a detailed questionnaire at the end of the course. Interviews and focus groups were conducted with selected students, instructors, and school district personnel and the results of two major concurrent studies were analyzed to compare findings. These procedures form the basis for the findings and recommendations for future implementations.

The study reports a high degree of client satisfaction and evidence to support the efficacy of more closely aligning university coursework and the professional development needs of teachers. It identifies five strengths of Education 406 and advocates further initiatives in more fully integrating the principles of self-education into the design of teacher education programs.

To Bill



A Parable

Once there was a committee
comprised of good teachers.
They were bright, and concerned,
and educated, and well-meaning.
They wanted to help students
live in peace, love each other,
be their brother's keeper,
love learning,
become self-directed.
Then someone said,
"We will teach by example."
Since they were
bright, and concerned,
and educated, and well-meaning,
they were sad.

John Rye Kinghorn

ACKNOWLEDGEMENTS

Education 406 arose from discussions between Stan Shapson and the author in consultation with Marvin Widden and Ian Andrews. As the project got underway, Steve Olliver and Robertson Wood joined the Development Team and worked on the planning and implementation of the first three pilot sections. Later, Instructors Mequido Zola and Cheryl Hearn added their talents as did the Surrey representatives, Terry McBurney and Dave McLeod, and the In-Service Associates. Next came forty-five students who made it their own. Education 406 is the people who work with it.

Isaac Newton commented that if something is achieved it is because we stand on the shoulders of those who have come before us. At Simon Fraser University, the vantage point has been elevated by gifted educators like Maurice Gibbons, Gary Phillips, Pat Holborn and David Hopkins.

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PREFACE

Ordinary, Moving...

As an undergraduate student, I wrote my honours paper on *Found Poetry: The Verbal Environment as Art*. Somewhere from those days of Dada, comes a volume title, *Ordinary, Moving*, a slight book that isolated fragments of language from every day life and held them up as poems. Ordinary viewed asmoving. When I look at Education 406, it seems imbued with something of the *Ordinary, Moving*. On one level, it is a modest enterprise which fits well in the traditional culture of university coursework and in-service education of teachers. Although somewhat novel, it seems on the surface of things quite ordinary. It is also moving. And the stuff of a new way of thinking about empowering learners of all ages to meet the challenges of...

1. INTRODUCTION

It is the teachers who, in the end, will change the world of the school by understanding it.

Lawrence Stenhouse

Education 406, the object of this study, is a five credit undergraduate level course offered in the Faculty of Education, Simon Fraser University (SFU). Developed in response to long standing issues in teacher education in general and university coursework in particular, the course provides an innovative in-service option for practising teachers. Although some of the elements and existing conditions that gave rise to Education 406 are specific to SFU, the principles inherent in it's design are relevant to a wide range of educational settings.

This study documents the planning, implementation and evaluation of three groups of teachers who completed the course and relates the underlying principles to appropriate fields with particular emphasis on the theory and practice of self-education.

The Issues

Education 406 evolved from examining the relationship between university coursework and the in-service needs of teachers. That relationship was the focus for discussions over a one year time period (September 1983 - September 1984) as the Education 406 Development Team reviewed a number of issues.

□ Traditional university coursework, although successful in many respects, does not wholly meet the needs of practising teachers.

The term 'traditional' is used here to describe coursework which is university-based, instructor-directed and content-oriented. As Wideen, Carlman and Strachan (1986) point out: "While such courses do present new ideas and information on how instruction might be improved, they appear to fall short in providing teachers with the ways and means of applying such improved instructional approaches within their classrooms" (p. 3). In general, although teachers recognize that they gain knowledge about teaching, they do not perceive coursework to be useful in significantly impacting on their classroom performance (Flanders, 1980; Hopkins & Holborn, 1983; Wideen, Carlman & Strachan, 1986).

□ In-service teachers have a depth of experience and implicit understandings about teaching.

Although teachers may not share the same point of view as university professors about the role of educational theory in informing practice, they nonetheless possess "...a kind of practical knowledge....He or she has considerable background experience, has learned much by trial and error,...and has an exquisite sense of what will work" (Cochrane, 1986, p. 4). Such expertise deserves to be recognized and used in degree completion and continuing credit coursework. Teachers, and other school personnel, need to have more input into their in-service needs (Dawson, 1978; Rubin, 1978).

□ Teachers, and other adult learners, regularly engage in self-directed learning episodes in their professional and personal lives although they may not consciously recognize their efforts as 'learning'.

The seminal research of Allen Tough has firmly established a picture of adults as active self-directed learners (Tough, 1971, 1982). Teachers, too, learn on their own and view professional development as an on-going responsibility (Flanders, 1980). For better or worse, the classroom becomes the teacher's learning lab. On the negative side, some teachers report the initial trauma of entering a classroom and that "Nothing prepared [them] for what it [teaching] was actually like" (Flanders, 1980, p. A-10). Through trial and error and largely in isolation they evolve a survival strategy. Flanders hypothesizes that because teachers self-learn under such stressful conditions, they have a difficult time changing. The positive side is expressed by teachers who view their development as a life-long mission and recognize that "...excellent teaching comes about largely as a result of the process of self-teaching" (Wassermann, in-press).

□ In-service teachers are capable of identifying issues in curriculum and/or instruction that are personally relevant and academically sound.

Advocates of autonomous learning maintain that teachers, with appropriate support, can and do implement significant changes in their teaching. With assistance in how to design and direct their own professional development (Gibbons & Phillips, 1981) or training in classroom-based research (Hopkins, 1985) or forums for reflecting on their practice (Zola, 1981), most teachers are capable of guiding their own

Learning. That those learning episodes can be structured to merit academic credit is demonstrated in the work of Tough and colleagues at the Ontario Institute for Studies in Education (Herman, 1982), Maurice Gibbons and colleagues at Simon Fraser University (Hopkins & Holborn, 1983), and many programs based on Malcolm Knowles work in a variety of post-secondary institutions (Knowles, 1985).

□ One way to assist teachers in the process of implementation is to extend training into school and classroom settings.

Joyce and Showers (1980, 1984), among others, point to the need to consider multiple stages (theory, demonstration, practice, feedback and application with coaching) in helping teachers to learn. Some of those stages, notably application with coaching, are best conducted in classroom settings. Fullan (1982, 1985) concurs with the stages outlined by Joyce and Showers and further emphasizes that teacher professional development should be job- or program-related with built-in opportunities for teachers to try things. Howey (1981) argues that not only does the case for school-focused in-service make sense from an empirical, political and economic point of view but that "...collective experience and common sense argue persuasively for this approach as well" (p. 7).

The above considerations were discussed by the Education 406 Development Team at the same time as a review of in-service programming, both credit and non-credit, was undertaken within the Faculty of Education. That review revealed a significant gap between what we *know* about in-service education and what we *do* about in-service education. To paraphrase Stenhouse (1984, p. 73), the discrepancy caused

the Development Team to search for a pattern of part-time study for in-service teachers that would turn them toward their professional work rather than away from it. The university could then become a partner in creating appropriate structures to support and nurture the development of teachers. As Wideen, Carlman and Strachan (1986) point out: "A growing body of opinion...maintains that...teachers and their work must become the focus [for school improvement] and that teachers should be given more autonomy in deciding not only the process of such reform but also its substance" (p. 3). That the teacher is the central figure in curriculum and school development not only needs confirmation but "...the best supporting structures and practices we can devise" (Gibbons & Norman, in press).

For the Education 406 Development Team, the key problem became how to more closely align coursework with the professional development needs of teachers. The appropriate time-frame to consider those needs is the life-long career of teachers (Faure, 1972; Jessup, 1969; Schuttenberg, 1983). School improvement, as a norm, necessarily implies the continuous development of teachers (Gibbons & Norman, in press) especially given the accelerating rates of change in the society and world in which schools are imbedded (Ferguson, 1980; Miller, 1981; Toffler, 1970, 1980). In part, the problem was addressed by drawing upon past experiences with, and a growing sophistication about, programs built on the theory and practice of self-education. One of the results was the design and implementation of three pilot groups of a new field-based course, Education 406, which sought "...to foster independent inquiry and include self-directed projects as learning options" (Schuttenberg, 1983, p. 17).

Purposes of the Study

The primary purpose of this study is to describe and evaluate Education 406 as an alternative model of university coursework. The study will assess how well the program aligns with the professional development needs of teachers, especially as perceived by teachers, and what lessons it has to offer in designing programs that encourage teachers to design and direct their own continuing professional development. The study is also the chronicle of an educational idea - the seemingly simple yet profound notion that "Ultimately, every *individual* is primarily responsible for his own education and most of his learning must be self-directed" (Houle, 1969, p. 65).

Following an explanation of the perspectives of this study, Chapter 2 describes the components of Education 406 and the procedures used to monitor and evaluate the three pilot groups. Chapter 3 surveys selected readings in self-education and shows how Education 406 is related to the basic principles identified by leading advocates. In Chapter 4, the background, antecedents, transactions and outcomes of the Spring 1985 Education 406 groups are described. Chapter 5 summarizes the evaluation data and suggests five ways to build on the strengths of the program.

Perspectives and Context

For a number of years, I have been designing and implementing educational programs based on the theory and practice of self-education. It has become my educational *work* as opposed to my *job*. In various roles as high school teacher, supervisor of student teachers, university administrator, trainer and educational consultant, I have been energized by exploring methods to empower learners to take increasingly more responsibility for their own learning. Of late, the majority of those programs have centred on adult learners in teacher pre-service and in-service education. For me, *A Study of Education 406* represents an opportunity to pause and focus on the overlap between self-education, program design and the in-service education of teachers (Figure 1.1). The study is in some respects "confirmatory", (Miles & Huberman, 1984) but also it is an attempt to forge new directions in applying the principles of self-education in institutional settings.

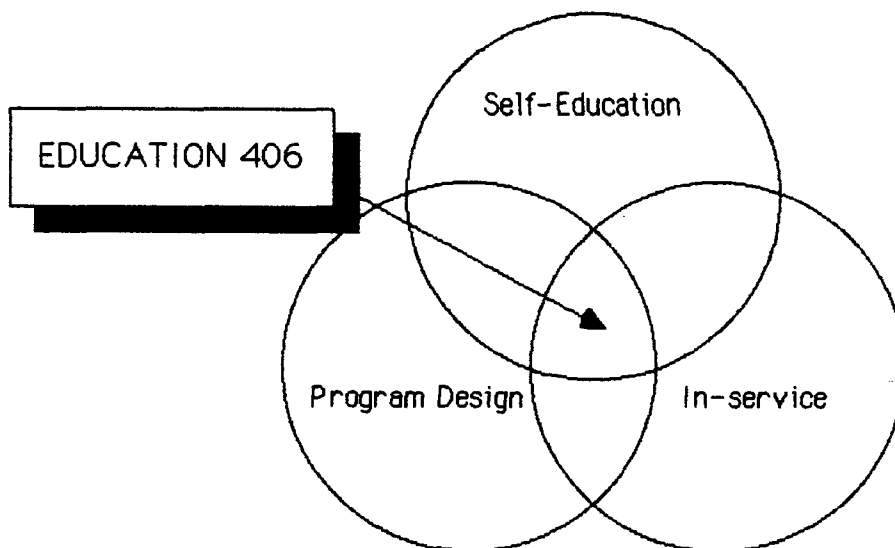


Figure 1.1: A Personal Context for Education 406

On the one hand, Education 406 can be viewed as simply another university course; on the other it represents a type of program fundamentally different from traditional institutional approaches. That difference is grounded in the proposition that all education should first and foremost further the learner's ability to learn how to learn. As John Gardner (cited in Tough, 1971) states:

Education at its best will develop the individual's inner resources to the point where he can learn (and will *want* to learn) on his own. It will equip him to cope with unforeseen challenges and to survive as a versatile individual in an unpredictable world. Individuals so educated will keep society itself flexible, adaptive and innovative (p. 149).

The decision in this study to ground Education 406 in the theory and practice of self-education is not meant to diminish the importance of other fields which have contributed to or informed it's design. Education 406 is drawn from many sources, each one full, complex and deserving of a more profound treatment than space affords (relevant references to the literature on in-service education are noted throughout the study).

Wideen, Carlman and Strachan (1986), for example, use the framework of "problem-focussed coursework" to study and analyse a group of Education 406 students. Their report reviews the literature on teacher-initiated innovation, university coursework as in-service education and selected papers on classroom observation. Although highlight's from that study are discussed in Chapter 4 and 5, readers interested in an in-depth analysis from those perspectives are referred to

Problem-Focused Coursework as a Model for In-Service Education: Case Studies of Teacher-Initiated Change.

McLeod, in another study conducted concurrently with this one, *A Case Study of a School-Based In-Service Training Program in Teaching for Thinking: Design, Implementation and Analysis* chose to look at a cluster of Education 406 students through the "lenses" provided by key selections from the fields of teaching for thinking (the focus for projects of five Education 406 students), staff development, instructional leadership and the role of the principal, and feedback and coaching.

Other areas also had an influence on the development of Education 406. Most of the members of the Development Team were familiar with the work of Stenhouse (1975, 1984), Ruddick (1984) and Hopkins (1982, 1985) which describes a concept of the teacher-as-researcher-as-artist. Stenhouse's position that "Good teachers are necessarily autonomous in professional judgment" (1984, p. 69) was likely the primary rationale for developing a course around classroom-based projects. In fact, the autonomous professional theme along with the work of Joyce and Showers (1980) were the most cited references in the early stages of promoting Education 406. Of course, there is no one right way to analyze an educational program, or any other complex phenomenon involving human beings in action. The lens in this study is self-education, although it is but one of several important perspectives.

The methods employed in this study are drawn from a variety of sources and fall somewhere between "tight, prestructured...designs" and "loose, emergent ones" (Miles & Huberman, 1984, p. 27). Qualitative methodologies not only tolerate, but celebrate, the ambiguity of programs-in-action. Insofar as this report is in part a formative evaluation for the purposes of program improvement, I have attempted to pitch it at educators with a "bias for action" (Peters & Waterman, 1982). On some levels, the study is exploratory and opens up far more questions than it answers. Much of the data is "soft" and relies on self-report. Cause and effect inferences are tentative.

2. EDUCATION 406: DESCRIPTION AND STUDY PROCEDURES

There is a knife moving here...an intellectual scalpel... You get the illusion that all those parts are just there and are being named as they exist. But they can be named quite differently and organized quite differently depending on how the knife moves.

Robert Pirsig

This chapter describes the components of Education 406 and the methodology used to analyze and evaluate the first three pilot groups.

What is Education 406?

In the Spring of 1985 the Faculty of Education, Simon Fraser University, piloted three sections (groups) of a new course, Education 406-5: Professional In-Service Practicum (Appendix A). The following year (Spring 1986), another cluster of four groups, as well as spin-off programs, were implemented. In Fall 1986, the basic Education 406 model (by now called Education 407 - Appendix B) was utilized as the final phase in an eighteen month re-training program for French immersion teachers. As this is being written, three more groups are projected for Spring 1987. Each group was/is organized around a content area or theme.

Education 406 Spring 1985

- Group 2 Theme: Implementation (and Planned Change)
- Group 3 Theme: Special Needs Students
- Group 4 Theme: Language Arts

Education 406 Spring 1986

- Group 2 Theme: Special Needs Students
- Group 3 Theme: Universal Curriculum
- ✍ Group 4 Theme: Teaching for Thinking
- ✍ Group 6 Theme: Instructional Supervision

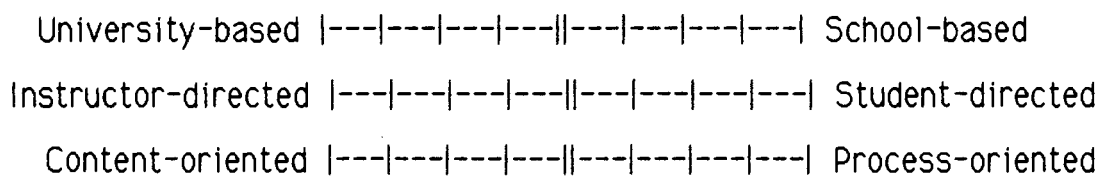
Education 407 Fall 1986

- Group 1 Theme: French Immersion

Education 407 Spring 1986 (projected)

- Group 1 Theme: Physical Education
- Group 2 Theme: Music
- Group 3 Theme: Instructional Supervision

The official course description for Education 406 states that it is "...for practising teachers who wish to implement new curriculum or instructional techniques in their own classroom...". Education 406 differs from traditional university coursework in a number of ways, primarily in the amount of control over decisions about what and how to learn that it affords to the student and its emphasis on process rather than content. Put another way, it is school- or classroom-based rather than university-based, student-directed rather than instructor-directed and process-oriented rather than content-oriented. It is useful to think of each distinction on a continuum:



In an institutional setting, it is not practical to locate all decision-making at the extreme right end of the continua. As Tough has commented (in relation to teacher-control versus student-control), it is simply too time-consuming and confusing not to assume some direction from the instructor (Herman, 1982). Suffice at this point to note that by and large traditional university coursework tends to function between the midpoint and the left end of the above continua whereas Education 406 tends to function between the midpoint and the right end.

Overall, Education 406 is designed as a set of structures intended to address limitations of university coursework for practising teachers, take advantage of existing themes in the Faculty of Education, and provide maximum flexibility for delivery. It is a systematic attempt to align coursework with the professional development needs of teachers.

Components

Education 406 is composed of four interrelated components: classroom work (centred around a supervised, individual project); seminars; instruction in the theory and practice of implementation and; recent or concurrent coursework (Figure 2.1). Each component is a dimension of a systematic process to enable teachers to focus on problems or issues in their own classroom. Education 406 encourages teachers to identify a relevant instructional or curriculum issue, design a project that addresses the issue, implement the project in their own classrooms or schools under supervision and monitor and evaluate their success.

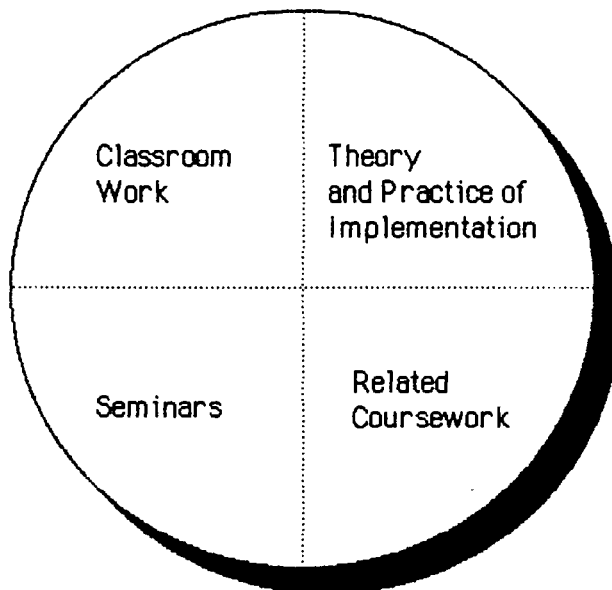


Figure 2.1: Components of Education 406

Education 406 components can be delivered in a variety of ways. A central problem is to maintain some consistency across Education 406 groups while deliberately encouraging diversity within components and

groups. The challenge is to find an appropriate balance between fidelity and adaptation (Miles & Huberman, 1984, chap. 8). In this regard, the role of instructor is pivotal in helping students integrate and adapt the components while maintaining the integrity of the course. Besides coordinating the components of Education 406, the instructor performs various tasks, depending on the unique circumstances of the particular group. The Instructor may be the classroom supervisor (In-service Associate), seminar leader, instructor and/or resource person in content areas and in issues related to implementation.

The instructor is also responsible for student evaluation which is based on a Pass (P) or Withdraw (W) system. A P/W system is used for a number of reasons: to avoid the difficulty of assessing highly individual projects in the context of a normative grading system; to side-step the problem of teachers formally evaluating other teachers in instances where peer observation or school district employed supervisors are used; and to encourage forms of evaluation more in keeping with the premises on which Education 406 is founded. Many instructors who advocate self-directed learning grapple with the problem of reconciling the philosophy with the grading demands of an institutional setting: Skager (1979) suggests an emphasis on self-evaluation and "non-punitive approaches"; Knowles (1975) uses different levels (A,B,C. etc.) of student contracts; Hopkins and Norman (1982) propose a matrix that incorporates standards of personal growth and academic rigour; Gibbons (1980b) utilizes measurements from baseline performance and stresses demonstration over measurement; Tough (1971) suggests a pass-fail distinction rather than a precise mark.

Supervised Field-based Project (Classroom Work)

Course Outline Description: "This component recognizes that feedback, coaching, consultation and other aspects of on-site supervision are important features of successful classroom implementation. Education 406 includes visits by a trained supervisor for observation and support" (Appendix A).

Each student in the course is expected to design and implement an individual project in their own classroom over a three month time span. The projects are negotiated with the instructor who helps the students to develop a systematic plan and appropriate methods for monitoring and evaluating their progress. Although there is not a prescribed written format for planning student projects, all Education 406 pilot groups utilized a written 'action research' (Appendix G), 'learning contract' (Appendix H) or 'individual study plan' (Appendix I) procedure.

The student is visited by an In-service Associate who provides classroom supervision and consultation. The In-Service Associate may be the Instructor or other university personnel, a colleague trained in supervisory practices from within the school district, or fellow students in the Education 406 course. Methods of supervision most often follow the clinical model developed by Cogan, Goldhammer and others (Cogan, 1974). Although different names -- clinical supervision, developmental supervision, teacher-centred supervision, instructional supervision, peer supervision -- are used to describe variations on the model, its primary emphasis is on professional development. "It is supervision to help the teacher improve his or her instructional performance" (Acheson & Gall,

1980) or to implement new curriculum in the classroom. A primary rationale for including a supervisory element in the design of Education 406 arose from the work of Joyce and Showers on feedback and coaching (1980) and the transfer of training (1984).

Seminar

Course Outline Description: "This component provides a forum for teachers to learn from one another. The seminar is scheduled on a regular basis to monitor progress, discuss common concerns and solve problems" (Appendix A).

Generally conducted by the Instructor, the seminar promotes student interaction and acknowledges the need for teachers to discuss and share perceptions. Peer support groups are becoming more widespread in teacher in-service programs. Two concurrent studies of sub-groups of teachers enrolled in the pilot sections identified support systems as exceedingly important elements in implementation (McLeod, 1985; Wideen, Carlman & Strachan, 1986). In a highly individualized program like Education 406, the seminars provide a forum for looking at generic elements and common themes of classroom-based implementation projects.

Theory and Practice of Implementation

Course Outline Description: "This component allows teachers to systematically explore school-based implementation and planned change through scheduled activities like guest speakers, demonstrations and

attendance at related events" (Appendix A)

Although it is identified as a separate component, the implementation theme is woven through the other components as well. Instruction in implementation, then, is both direct (e.g., specific sessions on planning, models of change, classroom-based research or supervision skills) and indirect (e.g., extracting general principles from seminar discussions, highlighting patterns in supervisory conferences or encouraging self-evaluation). The Development Team avoided stipulating a particular model of implementation and each Education 406 group to date has adopted a different approach. The underlying purpose is to assist teachers in understanding general implementation strategies beyond the specifics of their individual projects.

Related Coursework (Project Content)

Course Outline Description: "Education 406 is usually taken in partnership with some other educational study. It emphasizes the process of implementation and encourages teachers to identify relevant content unique to their needs. A fourth component is thus implied; systematic educational study like recent or concurrent university coursework" (Appendix A).

The individual student projects can arise from a variety of sources, usually related university coursework prior to, or concurrent with, Education 406. The intent is to ensure that the projects are substantively grounded and emerge from some systematic study of curriculum or instruction. Ideas for projects could come from conference or workshop

attendance and/or a variety of self-study initiatives.

As can be seen, Education 406 is an attempt to program for diversity. Each component is meant to fulfil a consistent function without stipulating the form that the component must take. Joyce and Showers (1980), for example, stress that feedback and coaching "...can be provided by peers (other teachers), supervisors, professors, curriculum consultants, or others..." (p. 384). So it is with the other components of Education 406. A look at the various forms of delivery employed in different groups further illuminates this concept. Figure 2.2 summarizes the first round of Education 406 groups in the Spring of 1985, the foci of this study, and Figure 2.3 outlines the mechanisms used in the Spring 1986 groups.

By defining Education 406 as interrelated components, it is possible to take advantage of unique opportunities, overcome problems and to implement it in a variety of settings. For example, when last minute, unforeseen circumstances cut down an Instructor's availability for classroom visits, procedures for peer supervision were introduced (Group 3: Special Needs, Spring 1986). Students were paired up and release time to allow students to visit and observe one another was negotiated with the three school districts involved. The Instructor re-allocated his time to coordinate the visits and used the seminar component to train students in the basics of the supervisory cycle.

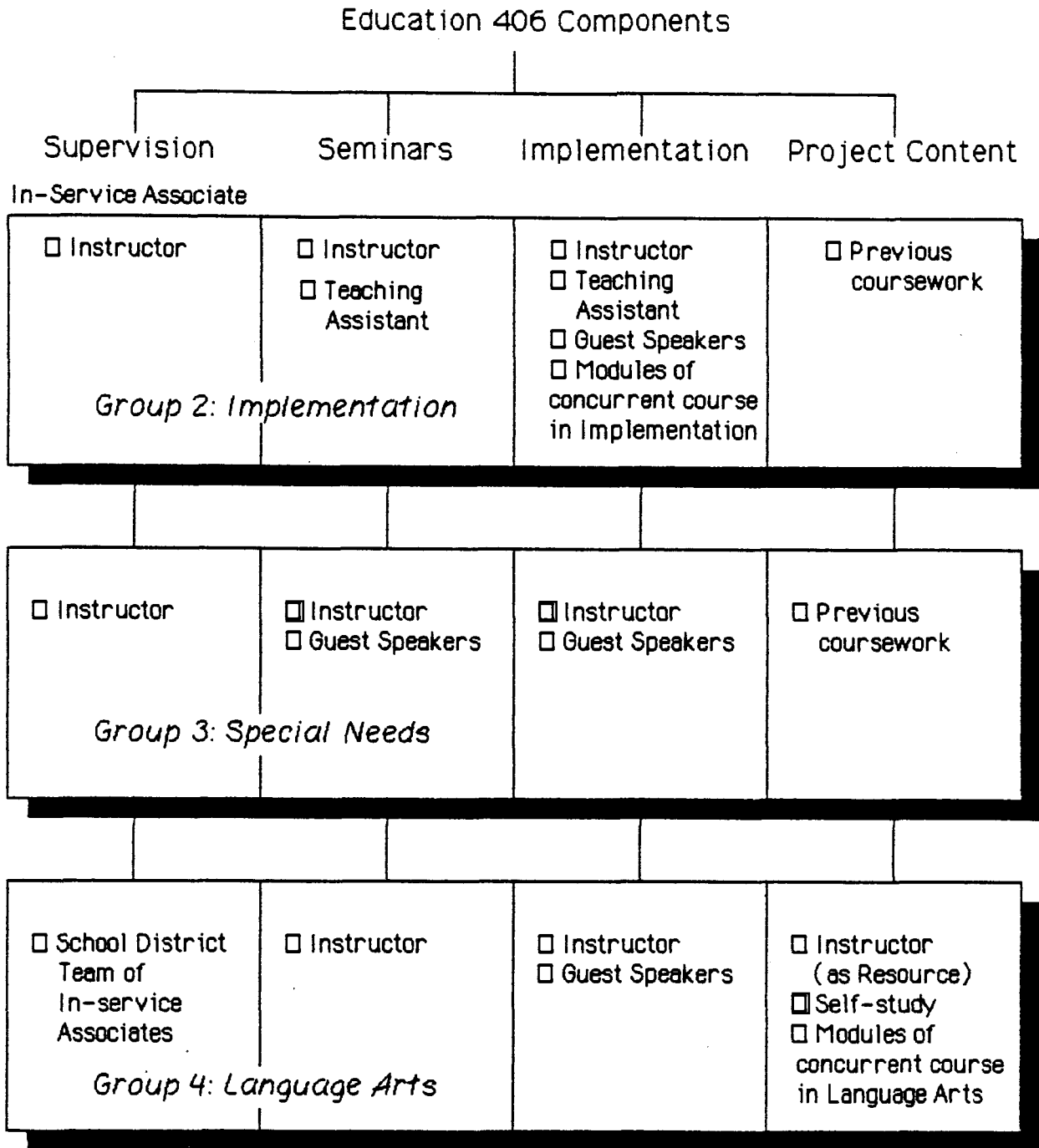


Figure 2.2: Education 406 Delivery Mechanisms (Spring 1985)

Education 406 Components

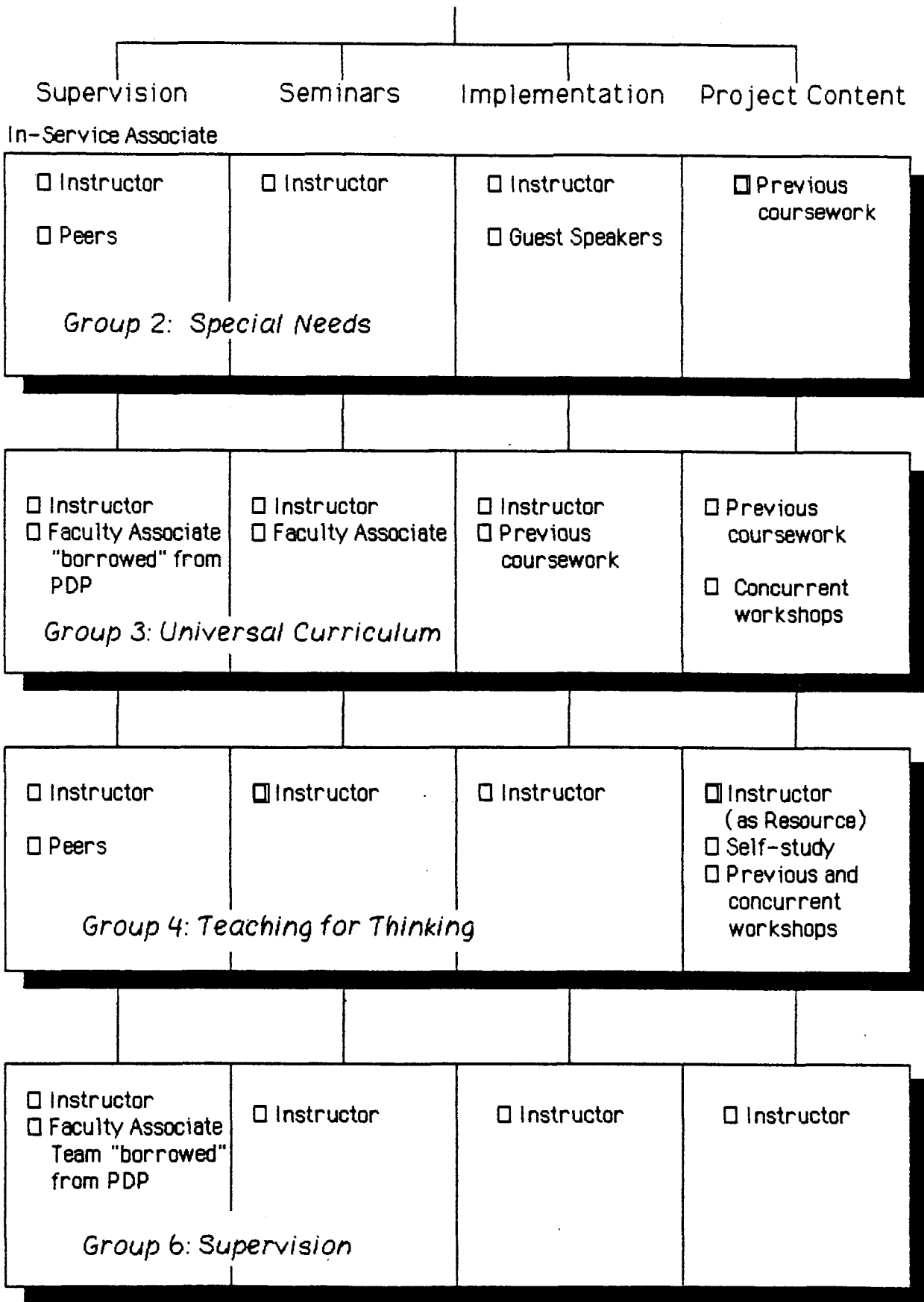


Figure 2.3: Education 406 Delivery Mechanisms (Spring 1986)

Methodology

A Study of Education 406 employs qualitative methodologies, not only because they best suit the object of the study, but also the temperament of the inquirer. LaRoque (cited in Jickling, 1985) has summarized the situations where a phenomenological paradigm is better suited than a scientific paradigm:

- 1...those which involve the meaning people attribute to events, the ways in which people define situations, people's motives and perceptions, and the like;
- 2...those which involve the possibility of different perspectives on the phenomenon to be investigated;
- 3...those which are likely to be influenced in important ways by the context; and
- 4...those which are holistic in nature, that is, the phenomenon to be investigated is characterized by the groups of interacting variables rather than by independently important variables (p. 3)

Education 406 conforms to all four situations.

Eisner (cited in Willis, 1978) notes, "The doing of qualitative evaluation is a difficult task...the inquirer is the major 'instrument', not a procedural prescription..." (p. xiv). In spite of a growing popularity of methods -- variously described as qualitative, ethnographic, phenomenological and naturalistic research -- few clear canons for the gathering and analysis of qualitative data exist (Miles & Huberman, 1984).

In part, this study is a formative evaluation for the purposes of program improvement. It is also research in that it attempts to contribute

to an understanding of program design principles inherent in

self-education. Although evaluation and research overlap (Borg & Gall, 1980; Scriven 1972), some distinctions are worth noting. Borg and Gall (1980) point out three important differences. First, evaluation is generally driven by a need to make decisions whereas research is more concerned with reaching a conclusion about a hypothesis. Second, evaluation is usually conducted for a limited purpose, that is, to assess the effectiveness of a particular program within a specific context. Research, on the other hand, attempts to provide generalizations or basic truths which apply in a wide variety of situations. Third, as Stone (cited in Irvine, 1979) notes, evaluation is just that, "e-VALUE-ation" and is often designed to make comparative judgements whereas research aims to contribute to understanding educational phenomena. Although *A Study of Education 406* contains elements of both evaluation and research, it stresses the former with an emphasis on formative rather than summative aspects (Scriven, 1972). It is first and foremost a study to inform action.

Miles and Huberman (1984) note many problems in the qualitative research paradigm in both the gathering and analysis of data: the tremendous amount of data that builds up; the labour-intensity of data collection methods; the problems of sampling -- "Are the cases examined a reasonable sample of a larger universe?" (p.15); researcher bias and; the lack of clearly formulated data analysis techniques. They argue for a degree of rigour sure to strike terror into the heart of amateur evaluators with a predisposition for phenomenology. While I hope this study is not an example of "blitzkrieg ethnography" (Rist, 1980), I admit to a lack of

interest in covering *all* the possible pitfalls in the methodology. The procedures described are chosen because they are commonsensical and resonate with my intuition about getting a fix on the *ordinary, moving*

Evaluation Designs

From a variety of qualitative methods, three seem particularly appropriate as guidelines for tracking the design and implementation of Education 406; Robert Stake's countenance model of evaluation (1972); Mathew Miles multi-trait-multi-method-multi-informant style of analysis (date unknown) and; the developing standards of action research, particularly the notions of on-going tentativeness, recursion and intersubjectivity suggested by Wilma Longstreet (1982).

The Countenance Model

Stake's countenance model provides a template and is used to ensure a "fullness of description". The model was first introduced in 1967 and has been called, along with the contemporary models of Scriven, Stufflebeam and others, an "educational systems model" (Glass, 1972). Systems or "second generation" evaluation models, says Glass, stress a comprehensive/inclusive approach and try to accommodate the interrelationship -- what has since come to be called the ecology -- among the components of complex educational programs.

Stake divides evaluation into data matrices used to describe clusters of information. He makes a distinction between the antecedents, transaction and outcomes of a program and argues that these categories are useful at four stages of evaluation activity: Intents or what is

intended to occur; Observations, what is actually seen to occur; Standards of Judgement, what criteria apply to assessing the program and; Judgements, what can be said about the worth of the program (Figure 2.4). The first two categories form the basis of the descriptive matrix and the latter two the basis for the judgemental matrix.

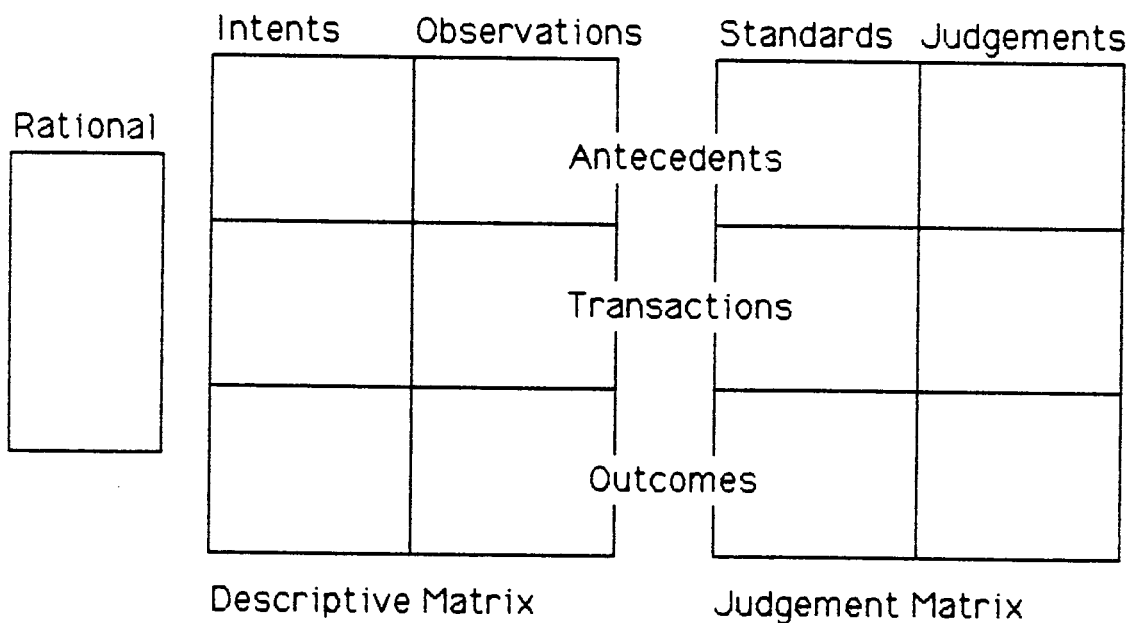


Figure 2.4: Data Matrices (Robert Stake)

Within the descriptive matrix, Stake also notes the logical contingencies among the antecedent, transaction and outcome phases in the Intents column and the empirical contingencies among the antecedents, transactions and outcomes during the Observation phases (Figure 2.5). By noting the congruence between logical contingencies and empirical contingencies, the evaluator can assess whether or not what was intended actually did happen.

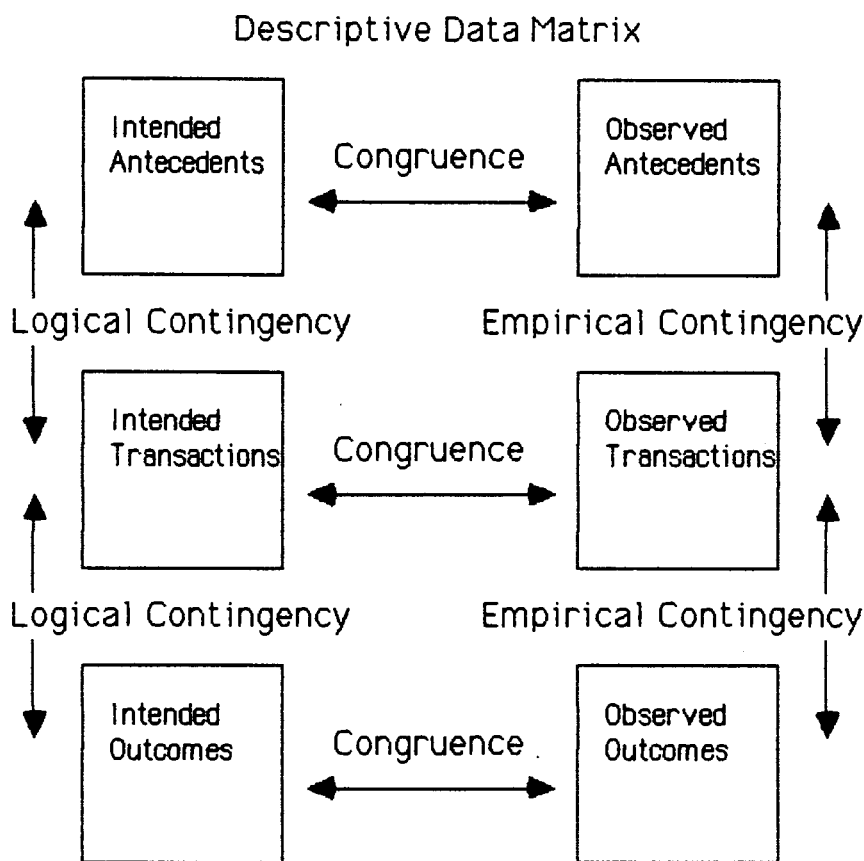


Figure 2.5: Contingency and Congruence (Robert Stake)

It is expected that each implementation of Education 406, earlier characterized as an attempt to program for diversity, will vary in the particular circumstances at the antecedent, transaction and outcome stages although it is hoped that some outcomes across all Education 406 groups are consistent. Stake's description matrix provides a simple, powerful method for keeping clear about expected versus actual events in the chronology of antecedents, transactions and outcomes. As well, it focusses on the significance of the congruence or lack of it between our intentions and observations.

Stake's model also incorporates strategies for assessing the merits of a program with respect to absolute standards and relative standards. Absolute standards refer to the "standards of excellence" inherent in the field while relative standards compare the program under study to other programs. From these comparisons, Stake argues, the evaluator can judge the merits of the program, and make recommendations (Figure 2.6).

In this study, Chapter 4 outlines the background, antecedents, transactions and outcomes of the three Spring 1985 Education 406 groups with further discussion on the outcome phase in Chapter 5. Standards of excellence for comparing Education 406 on the absolute scale are derived from reviewing relevant literature (Chapter 3). Relative standards are culled from participant responses and concurrent studies (Chapter 4) and reference to similar programs in the literature (Chapter 3). As a point of reference, Figure 2.7 displays the structure of this study overlaid on Stake's model.

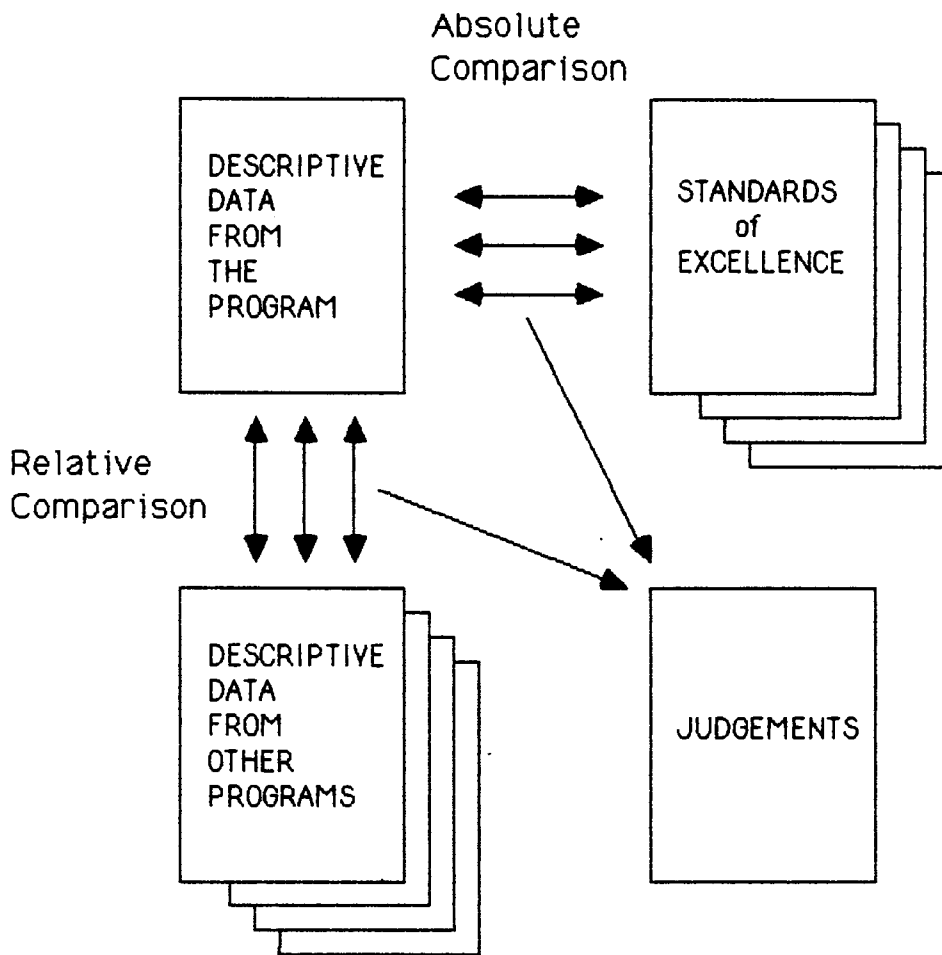


Figure 2.6: The Process of Judging the Merit of a Program (Robert Stake)

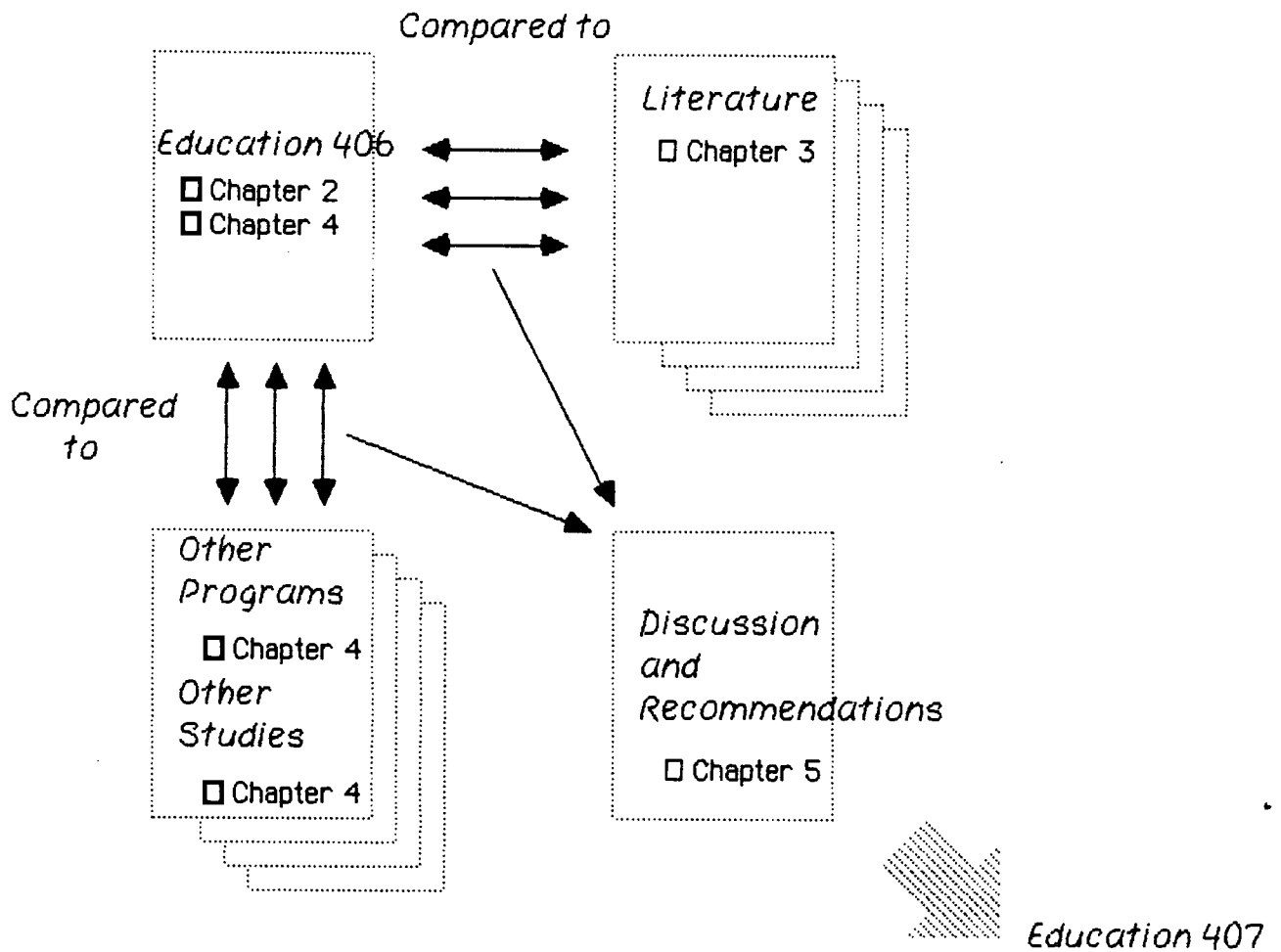


Figure 2.7: A Study of Education 406

Note: The relative and absolute items of comparison overlap with one another.

Multi-Trait-Multi-Method-Multi-Informant

Insofar as each offering of Education 406 is played out in complex settings involving different circumstances and multiple players, it is unlikely that a single method of data collection will suffice. Mathew Miles (date unknown) urges that a multi-trait-multi-method and multi-informant approach increases confidence in the results of studies of complicated interactions. The traits under consideration in this study derive from the key problem of designing university coursework that addresses the in-service needs of practising teachers.

Examples include:

- alignment - does Education 406 provide a good fit between coursework and the professional development needs of teachers?
- satisfaction - how do the various participants view Education 406?
- integration - do the components of Education 406 fit together and complement one another?
- integrity - does Education 406 express the principles of self-education and other fields upon which it is founded?

Methods used to gather and analyze data include:

- observations and field notes
- document examination
- surveys
 - questionnaire
 - interviews
 - focus group
- results from concurrent studies

Informants include:

- participants
 - students
 - Instructors
 - In-Service Associates
- developers
- researchers
- school district personnel

Insofar as the study relies largely on self-report data, some cautions are in order. For example, cause and effect inferences are necessarily tentative and sensitivity is needed to the problems of response effects (Borg & Gall, 1980, p. 311). The multi-trait, multi-method and multi-informant perspective provides a means of cross-referencing the data to corroborate and increase confidence in the findings (Figure 2.8).

Action Research

This study falls within an action research paradigm, a particularly appropriate form of analysis when the effort of the research or evaluation is intertwined with the evolving nature of a substantive program in operation (Hopkins, 1982b). The term action research is not without its problems, however, sometimes used as a way of escaping research criteria (Longstreet, 1982) rather than employing criteria better able to honour the dynamic context of the educational program under study. Although the generalizable findings of action research need be dealt with carefully (Borg & Gall, 1979), the approach is now developing it's own standards of judgement. Longstreet, for example, describes the various criteria for action research using the following terms: on-going tentativeness; recursion; empirical evidence and intersubjectivity; connotation; and collegial sharing. Three of these criteria especially resonate with the exploratory nature of this study.

On-going tentativeness refers not only to the conclusions, which can be thought of as "tentative generalizations subject to continuous revision" (Longstreet, 1982, p. 147), but also to the nature of problem under study, which itself may be in flux depending on the context. Such on-going tentativeness serves as a reminder that Education 406 is not a fixed course but a set of structures which must themselves evolve. Recursion implies that the on-going research process should incorporate the re-submission of data, results and problems. Because of the need to make constant decisions in educational programs, actions should be viewed as probes subject to on-going evaluation. Tentative generalizations lead to

actions that generate new data that lead to revisions of generalizations, and so forth. Education 406, like other programs in action, is shaped by the continual re-cycling of information, with each new implementation informing previous ones. Intersubjectivity takes into account the researchers subjective involvement in the events being investigated and the data that is collected. Intersubjective data is generated by matching the perceptions of two or more individuals when they share a similar, not necessarily identical, experience. Hence, although the results of this study do not claim to be objectively substantiated, the validity of the results increase as consistent patterns emerge from the subjective inputs. Longstreet's emphasis on intersubjectivity very much coincides with Miles' rationale for multi-informant data. The technique of cross-validating evidence has also been called triangulating, which Miles and Huberman (1984, chap. 7) describe as a "state of mind" for self-consciously double checking findings. Multiple sources of evidence should agree with, or at least not contradict, one another if legitimate conclusions are to be reached.

Observations and Documents

Participant observations with respect to the content and management of the program were systematically collected at all phases of the program. My observations range along the continuum from those of a non-participant to total involvement. My role as co-developer, coordinator, and researcher of Education 406 allows a number of points of view before, during and after the program. Methods of collecting and creating data include on the

spot notes of observed events, reflections on the design and conduct of the program, and a record of meetings with individuals and teams involved in the planning and implementation.

Further information about Education 406, and its parent programs, was also gathered from an examination of existing documents. Course materials, booklets, evaluation results and research reports were used to re-construct background events and programs that influenced the development of Education 406. Documents include:

- descriptions, materials and evaluations of background programs
- extant documents related to antecedent conditions
- a complete record of planning sessions and working notes
- drafts of Education 406 general descriptions and specific course outlines of Education 406 groups
- a complete record of internal and external communication including memos, liaison with Instructors, In-service Associates, university and school district personnel
- course materials, notes and related information collected by Instructors, In-service Associates and others
- official minutes and submissions used in formal university program committees
- correspondence and promotion materials sent to prospective and actual participants in the program
- follow-up materials and documents related to program evaluation and planning for the further clusters of Education 406 Groups.

These documents were numbered and displayed on a wall chart depicting the background planning and implementation of Education 406 from 1978 to the present, with emphasis on the period from September, 1984 to June, 1985. This information provided the skeleton for the chronology of events -- background, antecedents, transactions and outcomes -- described in Chapter 4.

Questionnaire

Students in all three pilot groups (n = 42) completed a five page questionnaire (Appendix C) during the final seminar meeting. Students in Group 2: Implementation and Group 4: Language Arts also completed an additional page of questions specific to their sections (Appendix D and E). The questionnaire provides data on student reactions to Education 406 as an alternative model of university coursework as well as the relative importance of it's component parts. A combination of forced choice, Likert scale options and open-ended questions were used. Students were asked to compare Education 406 to other university coursework, rate it as a professional development experience and assess it's impact on initiating changes in their teaching. The results are referred to throughout Chapter 4 and highlights are summarized in Chapter 5.

The questionnaire was developed in consultation with key personnel using Campbell's guidelines for conducting surveys (1984). The first draft was composed by the author, the Instructor of Group 2: Implementation and the Education 406 Teaching Assistant with input from the Instructors of Group 3: Special Needs and Group 4: Language Arts. It was reviewed by

the Undergraduate Program Director, the Project Director of a major concurrent study, members of the Education 406 Development Team and other colleagues in the Faculty of Education. A second draft was reviewed, revised and ratified by the Development Team and all Instructors. The added page of questions unique to Group 2: Implementation was composed by the Instructor and Teaching Assistant. The added page of questions relevant only to Group 4: Language Arts was composed by the author in consultation with the Instructor and school district personnel.

The questionnaire was also intended to assist students in 're-viewing' the components of Education 406 as interrelated parts aimed at supporting their self-designed projects. Although there was no mechanism in place to assess whether the questionnaire played a role in the students' understanding of Education 406, the designers conceived of it partially as a reflection-in-action tool. The importance of reflection in informing practice was often discussed amongst the Education 406 Development Team who, in many ways, were engaged in the same process as the students in the Education 406 groups. At the time, Teaching Assistant Robertson Wood (personal communication, March 1985) put it this way:

All the sections of Educ.406 are now in mid-course, so to speak, and, of course, the word is not yet in on how the "experiment" has fared or how the individual teachers and their work has fared. For those who make up the campus Educ.406 team the past few weeks has been an interesting and exciting time. For in a sense the members of this team are going through the same experiences as the students. This kind of course has no established guidelines to which they can refer. As the weeks progress the thinking and actions of the team had to go through the

same kind of formative evaluation and reformulation as those of the students'. The students and their projects are the phenomena upon which this course must focus, but at the same time the students act on the program so that it changes. In a sense the campus based team stands in relation to the Educ.406 students as these students stand in relation to their classroom. The team engages in the same "reflection-in-action" as they question the definition of their task, the theories that they bring to it, and the measure of their performance.

Immediately after the questionnaire was drafted, the author taped a half-hour monologue describing the rationale behind each question. This was done prior to summarizing the results in order to keep a record of the original intent of the each question. In Stake's terms, the tape acted as a safeguard to prevent the distinction between logical and empirical contingencies becoming blurred.

Interviews

Formal interviews were held with selected students and Instructors. The student interviews were "semi-structured", with a combination of guided and open-ended questions (Borg & Gall, 1979, p. 312) and were intended to check and probe the findings from the questionnaire. The interview schedule (Appendix F) was designed by the author, Group 2: Implementation Instructor and the Research Assistants on one of the concurrent studies. Six interviews with students from Group 2: Implementation and five from Group 4: Language Arts were transcribed and analyzed and will be discussed further in Chapter 4. Two Instructors were interviewed with no attempt to standardize the approach. Valuable feedback was also derived from less formal discussions with students,

Instructors , In-service Associates, school district personnel, and others.

A focus group session was held with the team of fourteen In-service Associates in Group 4: Language Arts. This was the final of three meetings with the Surrey In-service Associates and will be discussed in Chapter 4. It should also be noted that the program was characterized by regular consultation and monitoring in both formal and casual contacts. For example, during the planning and implementation semesters, the author chaired or attended in excess of 50 meetings with various parties involved in the program.

Concurrent Studies

Aspects of the pilot phase of Education 406 were also the subject of two intensive research projects which produced results directly bearing on this study.

1) *Problem-Focussed Coursework as a Model of In-Service Education: Case Studies of Teacher Initiated Change* (Wideen, Carlman & Strachan, 1986) was a one and one-half year research project funded through a Programs of Distinction Grant, Simon Fraser University. Among other techniques, the report used a case study method to examine the impact of a problem-focussed model of coursework on the instructional practices of teachers. The subjects, including five Education 406 students from Group 2: Implementation, were observed on a minimum of ten occasions (five observations before or in the early stages of Education 406 and five after).

2) *A Case Study of a School-Based In-Service Training Program in Teaching for Thinking: Design, Implementation and Analysis*, a Master of Education Project by Barbara Mcleod (1985), documented a group of five Group 4: Language Arts students clustered in the same school.

Both studies provide an in-depth look at two subsets of Education 406 students and complement the findings of this study.

3. SELECTED READINGS IN SELF-EDUCATION

I went to the woods because I wished to live deliberately, to front only the essential facts of life, to see if I could not learn what it had to teach, and not, when I came to die, discover that I had not lived...I would have each one be very careful to find out and pursue his own way, and not his father's or his mother's or his neighbour's instead..

Henry David Thoreau

This chapter documents the prevalence of self-learning through historical and current examples and urges that the uncertainty of the future demands a closer scrutiny of the theory and practice of self-education. Related concepts and the terminology used to describe variations on the self-education theme are outlined. Principles, practices and expressions are described with an emphasis on the work of Allen Tough, Malcolm Knowles and Maurice Gibbons. Finally, a case is made to view Education 406 as grounded in those principles and practices.

Old concepts in New Bottles

In a very real sense all education is self-education. No matter what the external forces, ultimately learning is personal and must be internalized by the self. Nonetheless, distinctions between learning controlled and transmitted by others and learning identified and directed by oneself have long been with us. History is full of exemplars of self-learning.

Allen Tough notes the extraordinary accomplishments of Edward Gibbon, author of *The History of the Decline and Fall of the Roman Empire*. Stated Gibbon: "Every man who rises above the common level has received

two educations: the first from his teachers; the second, more personal and important, from himself..." (cited in Tough, 1967, p. 7). Other examples used by Tough include the self-imposed study pattern of Socrates, the breadth of expertise acquired by Benjamin Franklin and Abraham Lincoln, and the recognition of ~~John Stuart Mill~~ regarding the influence of "self-education" [Mill's term] on his learning. The search for patterns that characterize self-educators have identified subjects from a wide range of occupations, including Charlie Chaplin, Harry S. Truman, Walt Disney, Wilbur Wright and Muhammad Ali (Gibbons, Bailey, Comeau, Schmuck, Seymour and Wallace, 1980).

One is not hard pressed to identify others who have guided their own learning and development. While Thoreau invoked intentionality, his friend and mentor, Ralph Waldo Emerson, mused about "Self-Reliance": "Insist on yourself...that which each can do best, none but his maker can teach him ...where is the master who could have taught Shakespeare? Where is master who could have instructed Franklin, or Washington, or Bacon, or Newton?" (1888, p. 19). It is also possible for someone to "miseducate" himself: "...Education is a do-it-yourself job, whether done badly or well. As someone once said of Mussolini, he was a self-taught man who was a bad student, and who had even a worse teacher" (Postman & Weingartner, 1973, p.18).

From the journal notations of da Vinci to the basement tinkering of Jobs and Wozniak, we have no difficulty in finding examples par excellence of self-guided learning. One does not have to search the pages of history or study the famous to find self-education in practice. In fact, self-education is so all pervasive that we tend to take it for granted. It is

evident in the play of children, in the drive of the self-made businessman, in the day-to-day problem-solving of the auto-mechanic, carpenter, teacher and chef, in the interaction between the mind and materials of the artist. Indeed, self-education is the primal ocean in which all forms of learning float. Carl Rogers on teaching and learning: "The only learning which significantly influences behavior is self-discovered, self-appropriated learning. Such self-discovered learning, truth that has been personally appropriated and assimilated in experience, cannot be directly communicated to another." (cited in Tough, 1967, p. 11).

Self-education and the skills of learning to learn have been of interest to philosophers and educators for more than 2000 years (Low, 1986). Now, however, a new imperative for more fully exploring the ways in which people teach themselves has emerged -- the information explosion. We are in an era, say the leading future gurus, of an exponential growth in knowledge and a parallel acceleration in the rate of change. "There is no longer a question of whether the world is changing. The question is how and how fast." (Miller, 1981, p. 10). Change, in fact "the change of change" (Ferguson, 1980), itself is becoming a fundamental reality of our time and the object of speculation from a wide range of authorities (Fabun, 1967; Faure, 1972; Gibbons, 1984; Leonard, 1984; Suzuki, 1986; Toffler, 1970, 1980; Yankelovich, 1981). Whatever labels we assign to describe our world in the downhill slide to the 21st Century -- the information age, the post-industrial society, the third wave, the learning society, to name a few -- wide agreement exists that we are on the brink of profound and uncertain changes in all aspects of our culture and, indeed, planet.

From smokestack to microcircuit--major changes highlight the move from Industrialism to the Information Age. We are witnessing a collision of technologies: computers, lasers, space satellites, genetic engineering, telecommunications networks, robotics and automation. They are individually significant but, when combined they produce an effect which is synergistic, a $1 + 1 = 3$ phenomenon. New technologies "spark" each other, producing novel and powerful effects, altering the basic structures of our culture (Low, McClaren & Norman, 1986).

This is not the forum to fully explore the dimensions of world-wide change. I have neither the inclination nor the talent to sort through the possible futures that confront us. The one certainty seems to be that the future is uncertain. It is within the framework of that uncertainty that an understanding of self-education becomes more urgent. "For the first time in history, education is now engaged in preparing men for a type of society which does not yet exist" (Faure, 1972, p. 13). Given this task it becomes imperative that we shift a significant part of the educational enterprise from emphasizing the acquisition of pre-determined content to emphasizing the skills and attitudes of self-education. Many compelling ways of thinking about this change of emphasis have been expressed, witness the following descriptions from Ferguson, Whitehead and Toffler.

In *The Aquarian Conspiracy*, Marilyn Ferguson (1980) talks of a new view of education as part of a major paradigm shift. The "Emphasis on *content*, acquiring a body of 'right' information, once and for all", says Ferguson, is an assumption of the old paradigm of education and needs to be replaced with the "Emphasis on learning how to learn, how to ask good questions, pay attention to the right things, be open to and evaluate new concepts, have access to information. What is now 'known' may change.

Importance of *context* (p. 289), which is more in keeping with a new paradigm of learning.

Knowles (date unknown) describes a persuasive argument put forth by Alfred North Whitehead in 1931. Whitehead says that it is legitimate to define education in terms of transmitting what is already known only when the life-span of individuals exceeds the time-span of major cultural change. In this situation, what young people learn in school, for example, will remain valid throughout their lives. However, states Whitehead, "We are now living in the first period in human history for which this assumption is false...today the time-span is considerably shorter than that of human life, and accordingly our training must prepare individuals to face a novelty of conditions" (cited in Knowles, date unknown). Hence the most important learning is learning how to learn.

In that we are confronted by a novel, diverse and uncertain future, Toffler (1970) argues, we should "...hedge our educational bets" (p. 411) and focus our attention on life know-how. We will need to emphasize the skills of learning, relating, and choosing with the emphasis on learning how to learn. "Tomorrow's illiterate", states Gerjuoy, "will not be the man who can't read, he will be the man who has not learned how to learn" (cited in Toffler, 1970, p. 414).

Further arguments for the need to view learning as a lifelong activity animated by self-education are found in virtually all of the authors cited above and in a many other references. Evidence of the need for initiative and self-direction appear as platforms or as implicit messages in top-selling non-fiction analyses of future trends in business (*In Search of Excellence*) and cultural change (*New Rules: Searching for*

Self-Fulfillment in a World Turned Upside Down and Megatrends) (Challenge Education Associates, 1983). These themes are repeated in current analyses of social and educational trends with a growing consensus about the need to learn, un-learn and re-learn throughout our lives.

In my recent work with educator groups, the concept of equipping learners to learn on their own has consistently emerged as a fundamental purpose of education: a group of principals at a seminar on managing change called it "the process of empowerment"; secondary teachers and administrators gathered to discuss future directions called it "the nurturing of resourceful humans" and; a group of trustees charged with drafting a mission statement called it "developing a spirit of challenge and risk-taking". Whatever the specific descriptors, there seems to be growing agreement about educational purposes. However, acknowledging the purpose is one thing, agreeing on the methods quite another, as is summed up in a recent E-mail communique from Ken Low (personal communication, October 11, 1986):

I just returned to town from a meeting with the CEO's of all the educational institutions in Calgary, a day and a half retreat with an equal number of "businessmen" to CEO's, gloves off, what should education be doing to equip kids with skills for the 90's... Very interesting. The group had a remarkable degree of consensus about what the priorities in education should be, ie character development and lifelong learning. The group fell apart completely when trying to deal with how to get there.

Hmmmm.
Cheers!

Getting There: Concepts and Terminology

The term self-education has been chosen as it embraces a cluster of related concepts, like learning to learn and life-long learning, and is relatively free from identification with specific advocates. Other terms used to describe aspects of self-education include "self-instruction", "self-directed learning", "self-propelled learning", "autonomous learning", "independent study" (Tough, 1967), "transpersonal education" (Ferguson, 1980), and "self-instruction for personal agency" (Martin & Martin, 1983). Such a range of terminology prompted one advocate of self-whatever learning to plant tongue firmly in cheek and propose "...calling [his] next book, *The Design of Self-Initiated, Self-Planned and Otherwise Autonomous Learning* (Herman, 1982). In his early investigations, Tough used the term "self-teaching" (1967), later preferring "self-planned learning" (1982). Willen (1984), notes that in Europe, self-directed learning is synonymous with "autodidacticism". Another term in use in Europe, "andragogy", has been appropriated and popularized in North America by Malcolm Knowles (1973, 1975, 1984).

According to Knowles (1973), the term andragogy was first coined by a German grammar school teacher in the early 1800's and worked it's way into the vocabulary of scholars and educators in Germany, Holland, and other European countries, arriving in North America in the late 1960's (a Bachelor of Andragogy degree was established in 1973 at Concordia University in Montreal). The term comes from the Greek *andr* (meaning "man") and *agogus* (meaning "leader"), and is defined as the art and science of helping adults learn. Although the term appears in opposition to pedagogy (from *paid* meaning "child"), Knowles (1984) qualifies that the

real distinction is not between education for children and education for adults, but rather education which has a content-orientation (pedagogy) versus education which has a process-orientation (andragogy). The terms are not so much dichotomous as they are the opposite ends of a spectrum. His choice of the relatively uncommon term, andragogy, is an attempt to provide a unifying label to integrate and differentiate a set of assumptions profoundly different from traditional pedagogy (1973). As Brookfield (1986) notes, both pedagogy and andragogy are "...appropriate, at different times and for different purposes, with children, adolescents, young adults, the middle aged, and the elderly" (p. 121), a belief also expressed by Knowles. The principles and assumptions of Knowles model are further elaborated in the next section.

Other educators have chosen labels unique to their variation on the self-education theme. Maurice Gibbons and colleagues, whose work is the foundation for some of the elements in Education 406, use the term challenge education to describe programs built on self-education principles (1976, 1984). Gibbons' terminology evolves from his notion of a "walkabout" (1974), where high-school students are taught to design their own curriculum through study and work in five challenge areas: adventure, creativity, service, practical skills and logical inquiry. Gibbons, too, has identified a set of principles to differentiate challenge education from traditional approaches to education (outlined later) and, like Knowles, his ideas have spawned a host of programs in a wide range of settings including public schools (1976, 1984; Duckett, 1977), universities (Wideen, Carlman & Strachan, 1986), teacher federations (Gibbons & Phillips, 1981), corporations (Gibbons & Norman, 1983), youth care

(Gibbons & Musson, 1986), and others.

The terms used to describe self-education are not wholly interchangeable. Nor is the discussion of terminology to be interpreted as an exercise in novelty or simply a "rose by any another name". Brookfield (1986), for example, insists that semantic confusion has implications for our understanding and practice. "Self-education" is not the same as "self-directed learning", with the former concerned with the techniques for "...managing the external conditions that facilitate the internal change called learning" (p. 46). Others note that some concepts whose labels suggest that they fall into a self-education paradigm, do not in fact belong. Della-Dora and Blanchard (1979), for example, point out that the Association for Supervision and Curriculum Development (ASCD) use of the term "self-directed learning" is not synonymous with "individualized instruction", the latter falling into a model of learning Knowles would categorize as pedagogical in its assumptions. From the "self-reliance" of Emerson to the "self-actualization" of Maslowe to the "self-help" of Dyer and others, the terms to describe the learner's active management of his/her on-going learning are almost as numerous as proponents. Hence, my preference here is to use the encompassing if somewhat innocuous label of self-education, not as a descriptor for a single identifiable educational program, but as a term to reflect broad, qualitative principles that take different forms in different contexts. It is a term meant to communicate a commonality of trends markedly different from standard approaches to education, and one which provides a sign post in our search for how to "get there".

\,sel-,fej-ə-'ka-shən\

\ej-ə-'ka-shən\

n 1 a: the action or process of educating or of being educated b: the knowledge and development resulting from an educational process 2: the field of study that deals mainly with methods of teaching and learning

\self\

1: from or by means of oneself

The concept of self-education is closely related to lifelong-learning and learning how to learn. Like self-education, no standard terminology or specific definition of these concepts has been established. Learning how to learn, for example, runs the gamut from a focus on learning and study skills (Morris, 1973) to complex ways of understanding the structure of knowledge through strategies like concept mapping and vee analysis (Novak & Gowin, 1984), to an emphasis on the "ecology of learning" and overall character development (Low, 1986). All three of the above perspectives are described in books or papers titled "Learning [How] to Learn". Nonetheless, whether explicitly stated or implied, they all promote what Griffin calls "learner-centredness" (1982). The importance of the concept of learning how to learn, especially as it relates to teacher-education, is summed up by Faure (1973):

Learning to learn is not just another slogan. It denotes a specific...approach that teachers must themselves master if they want to be able to pass it on to others...Each individual's aspirations to self-learning must be realized by providing him -- not only in schools and university but elsewhere too, under conditions and circumstances of all kinds -- with the means, tools, and incentives for making his personal studies a fruitful activity.

The term life-long learning shares a similar lack of precision, yet underlying agreement, as learning how to learn. The concept is oft cited as a rationale for adult education programs (Knowles, 1984) in that the 'greying' population shift, in concert with the unprecedented rate of change, demands a re-conceptualization of the clients in need of education or re-training. "In this decade, the number of young adults between the ages of 18 and 24 will decline by 16 percent" (Cross, 1984). In contrast, the post 35 age group will continue to expand (Cross, 1984). Recent figures published by the British Columbia Teachers' Federation emphasize the trend, compounded by a temporary "surplus" of qualified teachers, in the teaching profession. In 1986, the average age of the B.C. teacher is 41, with one district averaging 50 (BCTF Press Release, 1986). The release notes that less than 400 teachers in a field 27,000 are under the age of 25.

These trends highlight the need to view learning as a life-long activity, especially as it relates to professional education. "Every profession...must be concerned with the education which occurs during the total life-span of its members: pre-service training is only the first stage of this process." (Houle, 1969, p. 55). The view of learning as a life-long endeavour is reflected in several movements opposed to the front-end model of education (Organization of Economic and Cultural Development, 1973). For example, recurrent education, endorsed by the OECD, is designed to address social and economic change by providing easier movement between work, school and leisure (OECD, 1973). Drawing from the work of Dewey, Kuhn, Illich, Friere, and others, recurrent education shares some fundamental principles with the proponents of learning how to learn and

self-education in its insistence that education must be "...learner-centred in every sense of the term and the role of the teacher changes from that of purveyor to that of facilitator" (Houghton & Richardson, 1974, p. x). The teacher's role in the context of life-long learning is addressed by Dave (1973):

Teachers must, first of all, understand the concept of life-long education and its implications for school objectives, instructional process, evaluation procedures, relationship between school education and non-school learning, and so forth. Secondly, teachers should themselves become lifelong learners and set a good example to the youngsters in their charge. Third, they should abandon their traditional role and become animators of the learning process, coordinators of learning activities, and co-learners among their pupils as well as their peers (p. 72).

Principles, Practices and Expressions

The knowledge base for self-education and the search for basic principles to inform ways of teaching people to be self-educated derive from a variety of sources. Leading advocates have come at the problem in different ways and have arrived at similar conclusions. Many have approached, or have "discovered", self-education through the study and practice of adult education (Brookfield, 1986; Cross, 1984; Knowles, 1973, 1975, 1984). Others have analyzed the pattern of attributes exhibited in self-taught experts (Gibbons et al, 1980), looked at the learning projects initiated by lay persons (Herman, 1982; Tough 1967, 1971), observed and analysed human behaviour in relation to character development across cultures (Low, 1986), anticipated the needs of the

future (Faure, 1972; Ferguson, 1980), surveyed the literature in related fields of inquiry (Della-Dora & Blanchard, 1979; Tough; 1967), to name a few. The following discussion explores the quest for information about self-education with particular emphasis on the implications of Tough's research, the assumptions arising from the work of Knowles and the principles identified by Gibbons.

Approaches to the theory and practice of self-education are founded on studies from a variety of sources. Gibbons et al (1980), for example, drew from the work of humanist and behaviourist psychologists , education analysts, self-help literature, human development theorists and others as a starting point for direct investigations. Della-Dora and Blanchard (1979) surveyed the research in the areas of teacher-pupil planning, community-based education, values and moral education, learning styles, individualization through grouping and independent study, among others, from 1930 onward, to provide support for a developing theory of self-directed learning. Tough (1967) looked at the historical roots of the idea of self-teaching, and studied examples in schools and colleges to provide a basis for his dissertation on self-teaching projects. Particularly noteworthy is the exhaustive review of literature related to adult education provided in a new publication by Brookfield (1986). The most startling feature is the sheer volume of work from a variety of fields which can be seen to directly and indirectly inform the importance of self-education. To borrow a metaphor from Ferguson (1980), it is like seeing the "hidden picture" in optical illusion drawings. In this case the hidden picture is the prevalence of self-education in a wide range of work. It becomes increasingly difficult not to see self-education as a recurring

and pervasive theme in our culture.

The most often quoted research studies in the area of self-directed learning are those of Allen Tough. The Adult's Learning Project research has been called "The most provocative single piece of adult education research in the last ten years" (Gross, 1982, p. 152). Tough became interested in the question of self-education when, as a graduate student, he was struck by how closely an analysis of a personal self-learning project corresponded to the formal stages of program development (1967). That analysis led to a series of studies of the self-directed learning projects of adults (1967, 1971, 1982, Herman, 1982). Tough's seminal research and his methodology has since been replicated in over 50 follow-up studies with surprisingly similar findings (Brookfield, 1986).

Essentially Tough's approach involved asking adults about the learning projects they had been engaged in the year prior to the interview. Tough (1982) defines a learning project as a "...highly deliberate effort to gain and retain definite knowledge and skill". The project had to add up to at least seven hours, (in fact, he found that the average hovered around 100 hours). The populations surveyed included a wide range of adults in a variety of occupations in a several different locations including New Zealand, Ghana, Jamaica, at least 10 studies in Canada and 14 in different areas of the United States. Tough notes that the same pattern emerged no matter what group was interviewed or what country was looked at: the average person conducts seven distinct learning projects each year, spending an average of 100 hours each for a total of 700 hours. Eighty percent of those projects were planned by an amateur with 73% self-planned and 7% planned by a friend or peer group (the other 20 percent

is professionally planned and involves taking classes (10%), or one-to-one tutoring (7%) or programmed non-human resources). The most common motivation for these largely self-planned learning projects is some anticipated use of the knowledge or skill. Brookfield (1986), although acknowledging the importance of Tough's research, does caution against a wholesale acceptance of the findings for all adult populations. For the most part, comments Brookfield, Tough's, and follow-up, sample populations tend to favour white, advantaged, middle-class Americans with above average education.

What emerges from Tough's work is a picture of adults as on-going learners. It is interesting to note that many of the subjects were hesitant to be interviewed because they did not at first perceive their activities as 'learning' (a sad commentary on how learning is conveyed in our schools). When prompted about their hobbies or leisure time activities or asked to recall a recent problem they encountered, however, interviewees were generally eager to talk about their projects and began to view themselves as active learners (Tough 1971, chap. 2). Tough sees the research as contributing to a view of man "...as a self-directing organism with initiative, intentions, choices, freedom, energy, and responsibility... capable of achieving fundamental and far-reaching changes" (p. 5).

Another noteworthy aspect of Tough's research is the amount of help that self-directed learners receive. In interviewing 40 adults for his first study (1967), Tough was amazed to discover that people had received help and support from direct contact or interaction with between 4 and 20+ individuals (average 10) per learning project. The helpers included friends, colleagues, family members, sales persons and experts who contribute to,

but do not control, the learning project. Tough compares this finding to learners in formal classes and notes that self-directed learners make use of a far greater number of helpers. This interdependence of self-directed learners is echoed by others (Knowles, 1975) and dispells the notion that self-directed learning is a solo activity.

The above findings, and many more reported by Tough, have profound implications for the design of programs aimed at adults. Tough summarizes nine steps, from simple to more complex, for consideration by institutions and instructors interested in making use of the empirical data from the Adult Learning Project studies to encourage learners to operate more independently (1971, chap.14). In summary [paraphrased]:

1) Provide new help. Without changing current programs, institutions can make use of existing resources and structures to provide new sorts of help.

2) Help teachers learn. Institutions could do much more to encourage and reward the learning projects of their own staff.

3) Emphasize three objectives. Although many institutions pay lip-service to teaching students how to learn, they should state their objectives more precisely:

i) "As a result of his experiences in this educational institution, the student will tend to initiate a learning project when facing a major problem or task...;

ii) The student will realize that learning projects are common, natural, and useful...;

iii) The student will become much more competent at discovering and setting his personal life goals and learning goals..." (p. 149).

4) Help the Instructor feel equal. Instructors should be encouraged to view the learner as equal so as to establish productive relationships built on mutual respect.

- 5) Increase the student's choice of how he learns.
- 6) Increase the students choice of what he learns.
- 7) Experiment with group help for self-planned learning. Instructors should provide opportunities for group projects, especially for self-planned projects.
- 8) Reduce the emphasis on credit. Institutions should experiment with a variety of alternatives to decrease external motivators like credit and grades.
- 9) Do not rely on a single institution. Expand the learning options to include other institutions, self-study and community resources.

Malcolm Knowles work has influenced the practice of adult education and particularly self-directed learning. As earlier described, Knowles adopted the term andragogy to describe a growing body of information about helping people, largely adult populations, to design their own learning. The period from 1960-1980, notes Knowles (1984), produced more knowledge about the characteristics of adult learners than had been gathered in all previous history. Using the vast body of research from those two decades and his own work with adult learners, Knowles used andragogy as the term to describe a systematic framework to organize "assumptions, principles and strategies". He identifies five assumptions about learners inherent in the andragogical model and contrasts them to assumptions in the pedagogical model, which he views as parallel, not antithetical. In summary [paraphrased]:

1) Regarding the concept of the learner (and therefore, through conditioning in prior school experience, the learner's self-concept):

Andragogy: The learner is self-directing. Due to the prior conditioning of school, however, adults may assume a role of dependency in situations labelled "education" or "training".

Pedagogy: The learner is dependent and the teacher assumes responsibility for the what and how of learning.

2) Regarding the role of the learner's experience.

Andragogy: The learner enters the educational activity with not only more experience, but also a different quality of experience. Because adults derive their self-identity from experience, it is important to acknowledge and use their experience as a resource for learning.

Pedagogy: Learners enter into the educational activity with little experience and, hence, the main methodology is transmission.

3) Regarding readiness to learn.

Andragogy: The learner becomes ready to learn when he/she needs to know something or do something.

Pedagogy: Students become ready to learn what they are instructed to learn and readiness is seen largely as a function of age.

4) Regarding an orientation to learning.

Andragogy: Learners enter an educational activity with a life-centred, task-centred, and/or problem-centred orientation.

Pedagogy: The orientation to learning is subject-centred.

5) Regarding motivation to learn.

Andragogy: The most powerful motivators are internal, although it is acknowledged that adults will also respond to external motivators.

Pedagogy: Students are, for the most part, motivated by external pressures.

Knowles makes no claim that the above assumptions about andragogy represent an empirically derived theory. Although Brookfield and others raise a number of problems with Knowles analysis (Brookfield, 1986, chap. 5), the conclusion is that they are useful. Like all "neat,

prepackaged" practice injunctions, however, they need to be viewed with intelligent scepticism. It is on the level of practice that Knowles has been most influential. Following the assumptions, he outlines the basic "content plan" of pedagogy and the "process design" of andragogy.

The pedagogical content plan demands that the teacher answer four questions: What content needs to be covered?; How can this content be organized into manageable chunks?; What is the most logical sequence in which to present the chunks? and; What is the most efficient means of transmitting the content?

On the other hand, the process design has seven elements to help the androgogue organize for learning:

- 1) Climate setting (physical environment and psychological climate). Knowles stresses the importance of establishing climates of mutual respect, collaboration, trust, support, openness and authenticity, pleasure, and humanness.
- 2) Involving learners in mutual planning.
- 3) Involving learners in diagnosing their own needs.
- 4) Involving learners in formulating their learning objectives.
- 5) Involving learners in designing learning plans.
- 6) Helping learners carry out their learning plans
- 7) Involving learners in evaluating their learning.

Even the superficial treatment afforded here clearly indicates that both the pedagogical and andragogical approaches have a place with both children and adults. Knowles, however, speculates that now that we can

identify two clearly differentiated approaches, we will find that the andragogical assumptions are appropriate in many more situations than traditional schooling has thus far recognized.

Certainly the work of Maurice Gibbons and the many practitioners who have adapted his ideas, have proven that self-direction, and the assumptions behind Knowles andragogical model, can be taught and encouraged at all levels. Programs based on Gibbon's challenge education have been applied from the elementary grades (Gibbons & Keating, 1985; Lefkos, 1982) through highschool (Gibbons, 1976; Harvey, 1984; Stevens-Jacobi, Shoup & Ellsberry, 1979) to post secondary teacher education (Braun & Brown, 1984; Hopkins & Holborn, 1983). Gibbons advocates that schooling prepare people for a lifetime of learning and envisions a gradual transfer of responsibility from teachers to students. At the elementary level students receive initiative training through self-directed learning activities and projects moving to guided self-education (challenge education) at the highschool level culminating in a walkabout, where students design and direct their own final semester of school (Gibbons, 1974; Gibbons & Phillips, 1980). Beyond school, Gibbons sees self-education as an on-going activity as individuals negotiate the transitions through life stages (1976). In part, the principles of self-education identified by Gibbons are derived from research into the lives of self-taught experts in a variety of fields (Gibbons et al, 1980).

In "A Study of Experts without Formal Training" , Gibbons, Bailey, Comeau, Schmuck, Seymour and Wallace (1980) studied the biographies of 20 well known personalities -- entertainers; inventors, explorers, and creators; people of letters, science and philosophy; and administrators,

organizers and builders --who achieved high levels of expertise without formal training beyond high school. Besides the subjects identified earlier in this chapter, the study included such disparate characters as Pablo Picasso, Harry Houdini, Will Rogers and Malcom X. The research team used a modified free-sort system to identify and ultimately rank order the characteristics of self-educated people. The study resulted in the identification of 14 principles of self-education and their implications for teaching. In summary [paraphrased]:

- 1) The locus of control in self-education is in the self-educator. Teaching for self-education involves helping students internalize control.
- 2) Self-education is usually a concentrated effort in one field. Teaching for self-education involves helping students identify and become expert in a specific area.
- 3) Self-education is usually applied education. Teaching for self-education involves integrating knowledge with application.
- 4) Self-educators are self-motivated. Teaching for self-education involves helping students develop motivation to pursue their own goals.
- 5) Self-education is usually guided by a vision of accomplishment. Teaching for self-education involves helping students to see themselves successfully attaining goals.
- 6) Self-educators tend to combine their interests into a specific field. Teaching for self-education involves helping students explore the pattern of interest in different fields.
- 7) Self-educators tend to develop a unique pattern of formal and informal learning. Teaching for self-education involves helping students develop a personal style of learning.

8) Self-education involves the development of a number of attributes associated with people of character. Teaching for self-education should promote, model and reward personal integrity.

9) Self-education involves the development of attributes associated with unique, often non-conforming people. Teaching for self-education involves promoting a drive for originality.

10) Self-educators use reading and other skills to access the information needed for their projects. Teaching for self-education involves training in the process skills.

11) Self-education develops as an emerging theme around important life experiences. Teaching for self-education involves helping students to identify emerging themes in their lives.

12) Self-education is best developed in a supportive environment. Teaching for self-education involves creating an environment that encourages supportive relationships.

13) Self-educated people seem to like, and to be liked by, others. Teaching for self-education involves promoting a holistic approach which nurtures attitudes as well as knowledge and skills.

14) In addition to cultivating expertise, the process outlined above develops a mature personality. Teaching for self-education involves helping each student become an expert, a participant and a person.

For Gibbons, the above principles formed the basis for programs in nurturing the skills and attitudes of self-education in a range learners, many of them at Simon Fraser University. Examples of these programs, and the way they influenced Education 406, are discussed in Chapter 4 in the section on "Background".

The findings of Tough, Knowles and Gibbons have a high degree of correspondence. What emerges is an insistence that in self-education, and teaching for self-education, the locus of control over the what, how and why of learning must reside in the learner. Other commentators re-inforce the central point that in nurturing the generic skills of learning how to learn, the focus must shift from other-directed to self-directed decisions about learning. Ferguson (1980) calls the transition a shift from the old paradigm of an authoritarian structure to the new paradigm of encouraging autonomy. Miller (1981) notes that the work of Shane and Shane, Seif, the Club of Rome, among others, all promote the necessity of moving to learner-centred responsibility for learning.

Accomplishing a basic transition from other- to self-directed learning within an educational system largely designed for the transmission of content is not an easy matter (Gibbon & Phillips, 1978; Low, 1986; Leonard, 1984). Gibbons and Phillips have documented that the roles-shift from teacher- to student-directed learning is often traumatic for both teachers and learners and describe it as a "crisis". Although their original analysis focussed on students in an alternative highschool program, they later suggest that the transition is equally difficult for adult learners (Phillips, 1982). Difficulties notwithstanding, the challenge of developing teaching/learning strategies that empower learners to take ever increasing control of their own education becomes increasingly important. " Facts must be taught, but always within the context of a constant and continuous exploration of the unknown. If you teach a person what to learn, you are preparing him for the past, if you

teach him how to learn, you are preparing him for the future." (Houle, 1969, p. 59).

Each of the above analyses of assumptions/implications/principles of self-education contain recommended practices. The options for promoting self-directed learning are legion and beyond the scope of this review to catalogue. One of the most common approaches that has wide currency and particular relevance to Education 406, self-directed learning contracts and their focus on goal-setting and planning, is briefly discussed below. Two other practices, the use of support systems and the emphasis on the importance of balancing action with reflection, have also played a role in Education 406 and will be further discussed in Chapter 5.

The distinction between self-education in informal, life situations and the more formal requirements demanded in an institutional setting is an important one. Institutions, especially in credit programs, demand a more orderly and systematic approach than the "...real start from scratch' self-directed learning...a messy adventure" (Low, personal communication, August 15, 1985), carried out by individuals, such as those documented in Tough's research. Although a paradox exists here, characterized by the institutional, other-directed context of self-directed learning, there is nonetheless agreement that formal institutions of learning can, indeed must, do much more to nurture self-education (Della-Dora & Blanchard, 1979; Faure, 1972; Gibbons & Phillips, 1980; Herman 1982).

As an aside to this discussion, it is interesting to note the response of the experts in self-education cited in this review when asked to describe a favoured way of learning on their own (Challenge Education Associates, 1985): Knowles, drawing from Tough's work, talks of

interviewing an expert in the field he wants to master; Tough likes to plunge into a topic and immerse himself for a period of time; Griffin, recognizing the power of support, seeks out a learning partner; Gibbons sets himself near impossible deadlines to ensure motivation for learning and action and; Low prefers to alternate between observation and reflection. Other procedures favoured by skilled self-directed learners include; securing uninterrupted blocks of time (McClaren); teaching to others what it is you are in the process of learning (Harvey); creating intense experiences for yourself (Holborn) and; using the situation you are in as a guru (Hunter) (Challenge Education Associates, 1985).

Contract learning is central to the approach advocated by Knowles and (1975, 1984) and Gibbons (Gibbons, 1984). Contracts, and similar formats (learning plans, learning agreements, action plans) , are powerful techniques in developing systematic plans for self-directed action. They are a means of translating ideas into action (Hopkins & Norman, 1982) and developing motivation and commitment in the learner (Kelly, 1982). In an institutional setting, contracts are a useful tool for individualizing a program and have been applied in many settings involving a wide range of learners of all ages.

Knowles (1984) divides the design of learning contracts into four stages: 1) diagnosis and formulation of a learning objective; 2) identification of resources and strategies; 3) specification of acceptable evidence that the objective is reached; and 4) specification of how the evidence will be validated. In Gibbons' approach these stages are included with other dimensions of learning, most notably "vision", "challenge" and "celebration" components. Learners are assisted, through guided imagery

and other techniques, to formulate a "vision of excellence" for themselves, and hence put the specific learning goal into a larger context. The "challenge" aspect asks the learners to challenge themselves to reach beyond their perceived limitations. The "celebration" component encourages learners to reward themselves for completing self-directed learning projects and to renew their commitment to the next self-directed episode.

Although many variations on the theme exist, at the simplest level, learning contracts address the dimensions of all curriculum planning: setting a goal, formulating a plan, assessing results. Other benefits of the contract approach have also been identified. Barnard (1982) notes the bond of trust the contract can help establish between teacher and learner and also hypothesizes about its potential as a reflective tool. Herman (1982, p. 17) puts the hypothesis this way:

In developing a learning contract, the student may not only be learning how to identify needs, set objectives, etc., but in addition may be acquiring a sub-set of competencies: the skills of reflecting on her/his own learning at a generalized level. It may be that a contract encourages inductive thinking about learning itself.

Not all proponents of self-directed learning, however, are completely sold on the broad application of learning contracts employed by Knowles, Gibbons and others. Tough (1971, 1982), for example, worries that contracts may lock the learner in. Even though the option for re-negotiation exists, Tough feels the learner may be reluctant to modify his plans. In my own extensive work with learning contracts, I have found

a small minority (perhaps 5-10%), who have difficulty stating their intentions as terminal outcomes thus making the design of a learning contract somewhat counterproductive.

The principles and practices of self-education are expressed in many ways in many areas of education and in many institutional settings. As earlier noted, the intent of this current analysis is not to create a new orthodoxy of self-education, nor to embrace the particular approach, be it andragogy, challenge education or the learning projects stream represented by the group at the Ontario Institute for Studies in Education. Nor do the champions of the above versions of self-education, Knowles, Gibbons and Tough, pretend to have cornered the market on the best way to empower people to learn on their own, although there is something of the evangelist in each of them. As Knowles (1975) warns, "My motives are the motives of the missionary --so beware, I'll try to convert you" (p. 10).

With that qualification, let me also re-affirm that it is important to recognize the pervasiveness of the trend so as to capitalize on the growing sophistication, still in its infant stages, about how to create learning environments, within and beyond the classroom, best suited to the post-industrial learning society. As noted throughout this section, growing numbers of programs in action can be found to draw upon. Examples are increasingly available: programs in business and industry, health care, the professions (Knowles, 1984), elementary and secondary schools (Gibbons, 1976, 1984; Knowles, 1984; Duckett, 1977), colleges and universities (Eldred, 1984; Heie and Sweet, 1984; Loacker and Doherty, 1984). Nor do the ideas appear to be culture-bound as witnessed by examples of programs in Africa (Kabuga, 1984), Brazil (Merielles, Batista, and Associates, 1984),

Sweden and other Scandinavian countries (Willen, 1984) and, indeed, throughout the world (Faure, 1972).

Education 406

Well, by this time, Education 406 seems inconsequential in the light of global change, life-long learning and the like. And yet, however modest, it is an example of an orientation to teacher education that is at home in the above analysis. The basic premises -- field-based, student-directed, process-oriented -- ground Education 406 in the implications, assumptions and principles of self-education. For example, Knowles' elements of andragogy provide an exact description of the procedures employed in all three pilot groups of Education 406; setting a climate of respect, trust and support, involving learners in mutual planning, diagnosis, formulation of learning objectives, plans and implementation strategies, and evaluation.

This chapter has emphasized the need to empower learners to take ever increasing responsibility for their own learning. If that goal is worth pursuing, we cannot ignore the pivotal role of teachers (Faure, 1972; Gibbons, 1984; Goble, 1977; Rubin, 1978). Teachers are daily at the cutting edge of the future (Flanders, 1980) and the importance of modelling cannot be overstated. As Schweitzer remarked "Example is not the best way to influence people, it is the only way". If teachers are to promote self-direction in young people, they themselves must experience and internalize the skills and attitudes of self-education. Tyler (1978) on in-service: "The autonomy of teachers can be preserved and actually augmented by appropriate programs of in-service education" (p. 149).

For all good intentions, does Education 406 represent the ideas espoused above? Does it address our original question of more closely aligning university coursework with the professional development needs of teachers? Chapters 4 and 5 take a closer look at the pilot groups and address these questions.

4. EDUCATION 406

Ideas are clean. They soar in the serene supernal. I can take them out and look at them, they fit in books, they lead me down that narrow way. And in the morning they are there. Ideas are straight - But the world is round, and a messy mortal is my friend. Come walk with me in the mud..

Hugh Prather

This chapter describes the development and implementation of Education 406. Specific players and idiosyncratic detail are included to capture something of the flavour of the enterprise. The "Background" section outlines courses and structures from 1978 to 1984 to show the evolution of the ideas on which Education 406 is founded. Figure 4.1 provides a map of the background analysis that follows, a relatively personal view of the influences that set the stage for Education 406.

The three pilot groups are then separately described using Stake's framework of antecedents, transactions and outcomes. Data from the questionnaires, interviews, concurrent studies and other sources are woven into the narrative, especially at the outcome stage of the analysis.

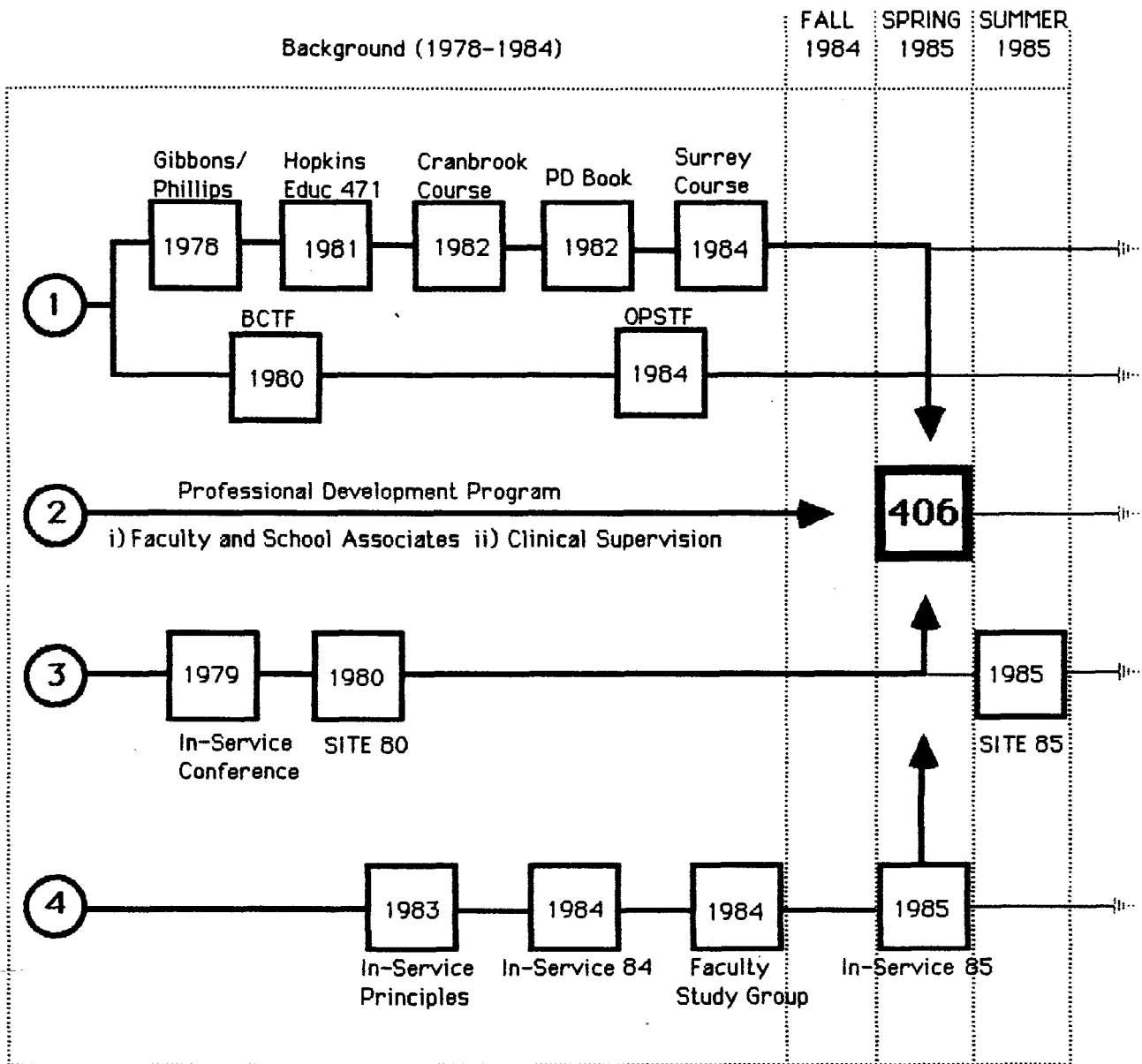


Figure 4.1: Major Influences on the Development of Education 406

- 1) Self-Education (Courses and Workshops)
- 2) Traditions of the Professional Development Program
- 3) Conferences and Summer Institutes on In-Service
- 4) Undergraduate Program "Probes"

Background

(1) Self-Education (Courses and Workshops - Figure 4.2)

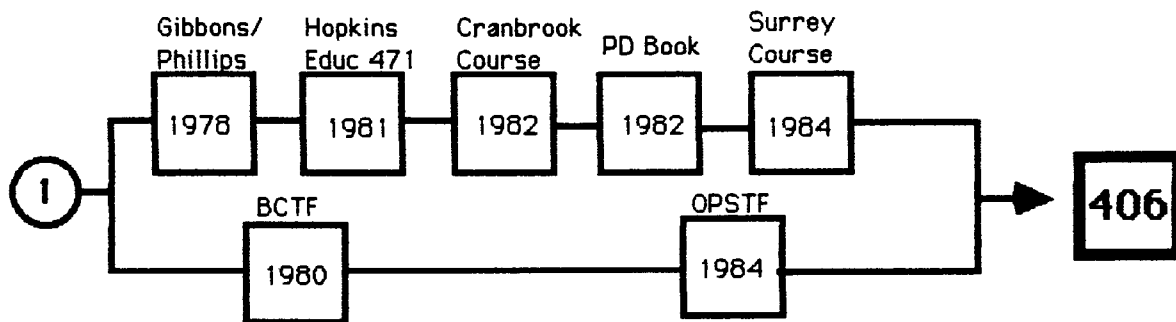


Figure 4.2: Self-Education (Influences on Education 406)

1978: Gibbons/Phillips

The work of Maurice Gibbons and colleagues in self-education and contract learning have influenced several programs in the Faculty of Education. Gibbons and Gary Phillips applied the principles of self-education to design and field-test credit courses in curriculum and program development as well as workshops for student-teachers and in-service teachers. In the coursework, the procedure involved breaking curriculum/program development into a list of competencies which became the basis for student designed projects. Each project was framed as a negotiated learning contract which had the dual purpose of teaching the skills of curriculum development *and* helping students internalize the essential patterns of effective self-directed planning and action.

The power of the Gibbons/Phillips' procedure is witnessed by the number of graduate students and colleagues who adapted the techniques in their own teaching. From the many spin-offs, one line of development leads to Education 406.

1981: Hopkins Educ 471

David Hopkins, a doctoral student in a Gibbons/Phillip's Education 816: Program Development course, employed and evaluated the contracting methodology in a series of four curriculum development courses in 1980-81 (Holborn & Hopkins, 1983). Hopkins' course(s) contained both a traditional component (lecture/seminar sessions on the theory and practice of curriculum development), and a self-directed component (five negotiated learning contracts selected from a list of competencies brainstormed by the students).

These competencies encompass the wide range of skills required of competent curriculum developers, such as:

☐ can expertly employ systematic methods of adapting and formulating curriculum

☐ can expertly evaluate a curriculum either to improve it or assess its general effectiveness

☐ can employ at least five different instructional models for helping students achieve objectives (Holborn & Hopkins, 1983, p. 169).

The overall structure of the course is summarized in Figure 4.3.

The Hopkins/Holborn study rated the model very highly and noted that the "...potential...for this particular form of delivery is enormous..." (p.173). In 1982, Hopkins collaborated in adapting the course to manage the individual projects of sponsor teachers in an off-campus pilot course.

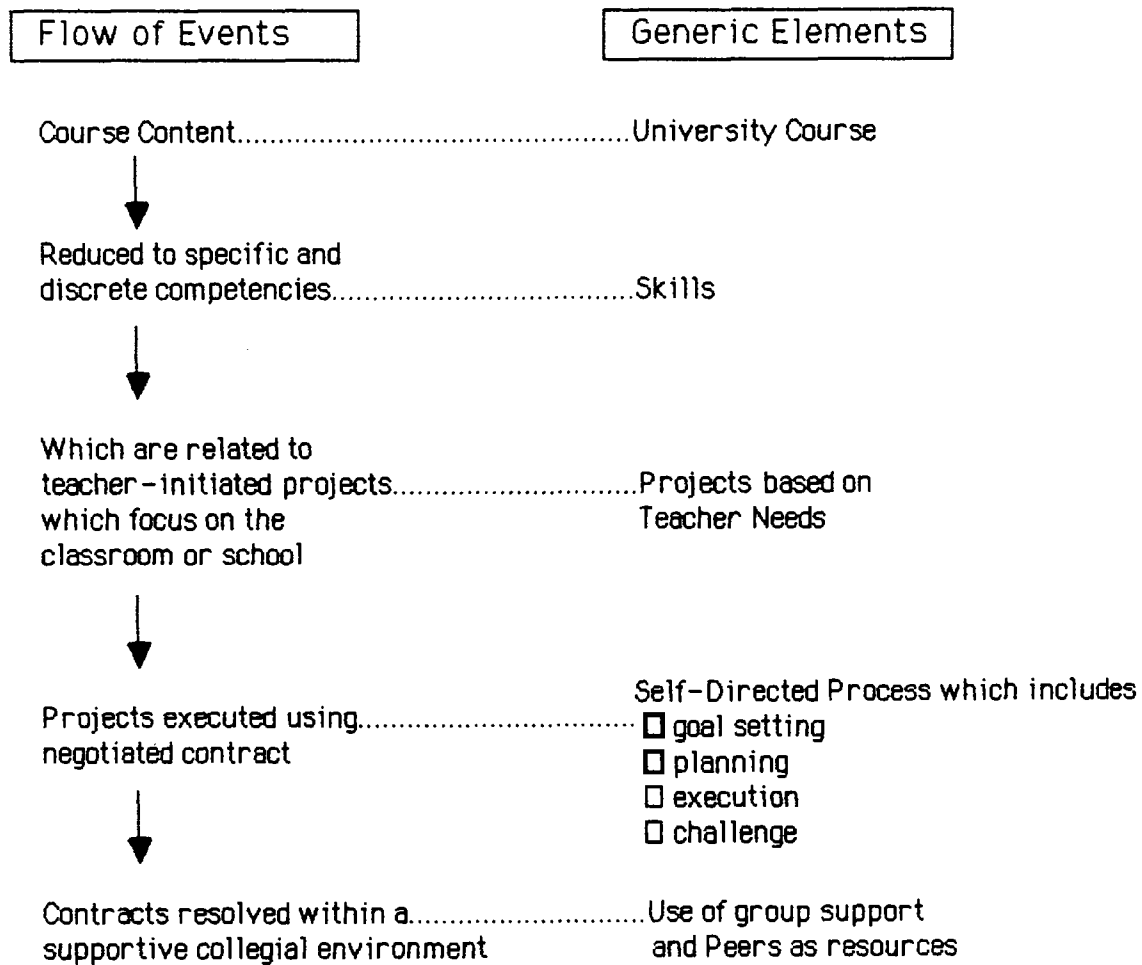


Figure 4.3: Structure of Hopkins' Course

1982: Cranbrook Course and the PD Book

The Cranbrook course was provided to enhance the extended practicum of student teachers in an off-campus Professional Development Program site and involved four School Associates, the SFU term for sponsor teachers. The course description highlighted the flexibility of learning contracts (Hopkins, 1982b, p. 16):

A contract system will be used to structure the course. Contracts provide an excellent means of translating theoretical ideas into practical action. Each contract will be negotiated with the instructor and will be worth one hour of undergraduate or graduate credit. In this way individual students can vary the load they wish to take. For a two credit course one contract will be concerned with the school associate's professional development and the other will focus on the quality of the 405 [extended practicum] experience.

The course was evaluated using participant observations, questionnaire data and interviews. The study concluded that the course contributed to the "internalization of a process of self-directed learning on the part the school associate" (Hopkins, 1982b, p. 18).

The Surrey Course

From the Cranbrook experience came *Professional Development: A Self-Directed Study Course* (Hopkins & Norman, 1982), a guide to self-directed learning, which was later used as the basis for a summer course co-sponsored with Surrey school district. The purpose of the course was to teach students the skills of planning a classroom-based action project and encourage them to implement their plans when they resumed teaching in September. It was the direct prototype for Education 406.

1980: BCTF (*The Self-Directing Professional*)

Concurrently with the evolution of credit courses, self-education principles were field-tested in a variety of non-credit settings, including the professional development of teachers. In 1980, for example, the British Columbia Teachers' Federation commissioned *The Self-Directing Professional* (Gibbons, Norman & Phillips, 1980b) to encourage teachers to design and direct their own professional development.

The Self-Directing Professional workshop has been designed to be a school-based, one-day workshop with both preparatory and follow-up steps for staffs. The goals of the workshop are to assist teachers to establish a collegially supportive environment and systematically to develop ways of becoming more self-directing in their competence, influence and joy on the job (BCTF Poster, 1980).

The Self-Directing Professional program used a cadre of trained BCTF Professional Development (PD) Associates, voluntary teachers deployed by the BCTF, to present the workshop to staffs and other groups. The workshop was successful on many levels although an in-depth study concluded that its major drawback was a lack of "...sufficient time for the content, debriefing of exercises, and mutual planning" (Morton 1981, p.174).

In the first year of operation, PD Associates presented the workshop to 600 teachers. A random sample of 200 questionnaires (administered to each participant at the end of the workshop and tabulated by the BCTF) indicated that 98% of teachers rated the workshop as better (63%) or very much better (35%) "in comparison with other professional development workshops in which [they had] participated". (BCTF Document F10-42/Rev. December, 1980). Anecdotal comments highlighted the collegial sharing and action contract elements of the program.

1984: OPSTF (*Self-Directed Action*)

The Self-Directing Professional led to the development of "Managing Change through *Self-Directed Action*" (Gibbons & Norman, 1983), commissioned by the Ontario Public School Teachers' Federation (OPSTF).

This workshop explores the processes and skills of effective self-directed action. Through a carefully planned sequence of presentations, individual reflection, and small group support, participants experience the essential steps of self-directed learning...As educators, we also have a responsibility to promote self-direction in our students and to contribute to the continuous development of our schools. These three -- ourselves, others, organizations -- are interconnected and while this workshop emphasizes 'ourselves' as the primary focus, the concepts presented are transferable to work with students and to school improvement. (OPSTF Flyer, 1984).

Self-Directed Action, although similar to *The Self-Directing Professional*, introduced some elements and refinements worth noting. The opening chapter (and corresponding workshop activities), "The Natural Way to Learn", emphasized Tough's findings (1971) to help participants raise past self-directed learning to a conscious level. Chapter 2, "Self-Directed Action", mapped out the inner dimensions to effective outer action (Figure 4.4) and encouraged participants to use a reflective journal.

Evaluation results from the first round of seven workshops (N = 93) echoed the findings of *The Self-Directing Professional* evaluations with 79% rating the workshops as better or very much better than "other professional development workshops...attended".

The BCTF and OPSTF sponsored programs, and other workshops in a variety of settings, affirmed several elements of self-directed programming that informed the development of Education 406, not the least of which was the popularity with which the self-directed approach was received by teachers.

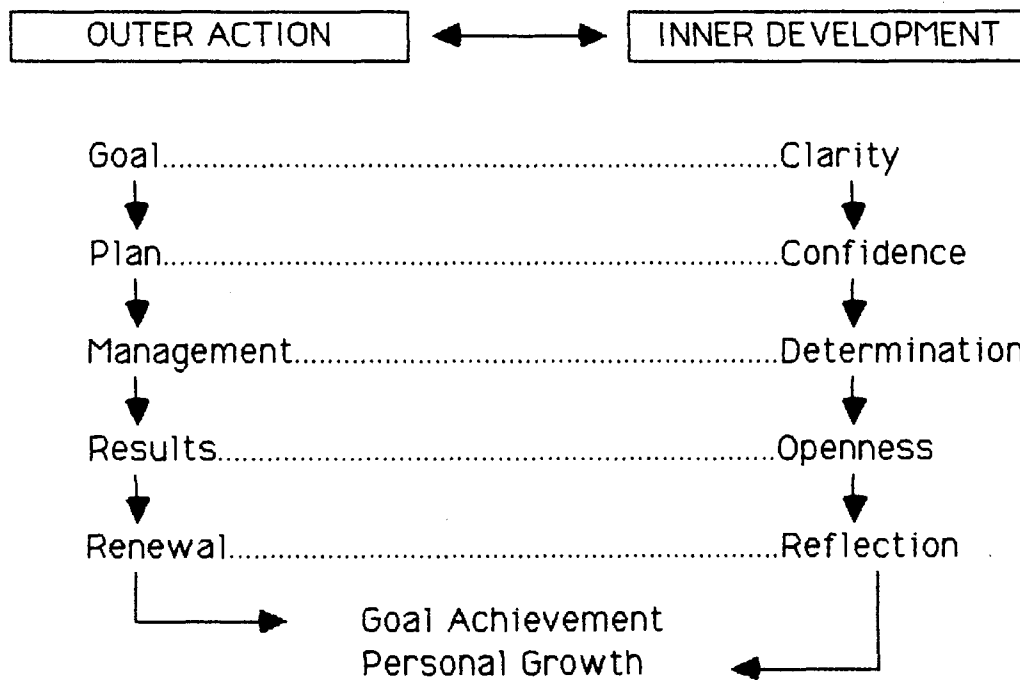


Figure 4.4: Outer and Inner Development

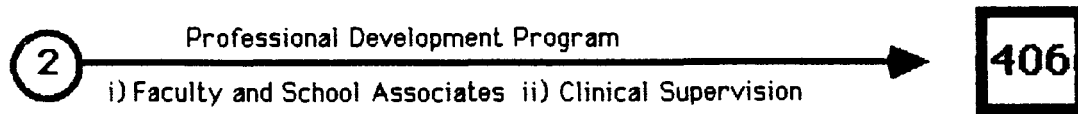
(2) The Professional Development Program (Figure 4.5)

Figure 4.5: The Professional Development Program
(Influences on Education 406)

The Professional Development Program (PDP), the pre-service teacher education program at Simon Fraser University, is noted for its innovative approach to teacher education (Ellis, 1967; Tuinman, 1985). The PDP is heavily field-based, with student-teachers spending one half of their professional training year in classroom settings. The Faculty of Education has developed a number of ways to support both student-teachers and School Associates. Two features -- the supervisory role played by the Faculty Associates and School Associates and the model of supervision adopted by the PDP -- were borrowed and adapted to Education 406.

Faculty Associates and School Associates

Faculty Associates are exemplary teachers seconded from school districts by the Faculty of Education to assist in the PDP. School Associates is the name used for sponsor teachers who, given the extended practicum requirements of the Program, play a major role in the student-teachers' development. On one level, both Faculty and School Associates are support persons for the classroom work of student-teachers. With a twenty year history, this differentiated staffing model is a proven system for providing systematic observation, feedback

and support in the classroom settings (Tuinman, 1985). The position of In-Service Associate in Education 406 is an attempt to transfer the support role from the pre-service context to the in-service context. The use of the term In-Service Associate is intended to capture the nuance of the supervisory role in PDP and establish a parallel tradition. Building in a positive connotation to the label was one way of providing incentives for In-Service Associates to view their role as "...meaningful participation in teacher education as defined by status recognition, input, and control in the process..." (Whaley & Wolfe, 1984).

Clinical Supervision

In 1974, the PDP initiated supervisory training programs for both Faculty Associates and School Associates based on methods developed by Morris Cogan, Robert Goldhammer and others (Cogan, 1973). Since that time, the Faculty of Education has developed a comprehensive system to orient and train supervisory personnel. The original Cogan model has been augmented by subsequent research and literature in the area. *Looking in Classrooms* (Good & Brophy, 1978) and *Clinical Supervision of Teachers* (Acheson & Gall, 1980) have been particularly strong influences, with the latter being standard issue for Faculty Associates. The extensive use of clinical supervision in the PDP has embedded the basic principles into the cultural norms of the Faculty of Education. Hence a systematic supervision component was relatively easy to incorporate into the design of Education 406.

An underlying theme of clinical supervision connects it directly to the self-education line of development. As Cogan (1973) notes: "A central objective of the entire clinical process is the development of the

professionally responsible teacher who is analytical of his own performance, open to help from others, and withal self-directing" (p. 12).

(3) Conferences and Summer Institutes on In-Service (Figure 4.6)

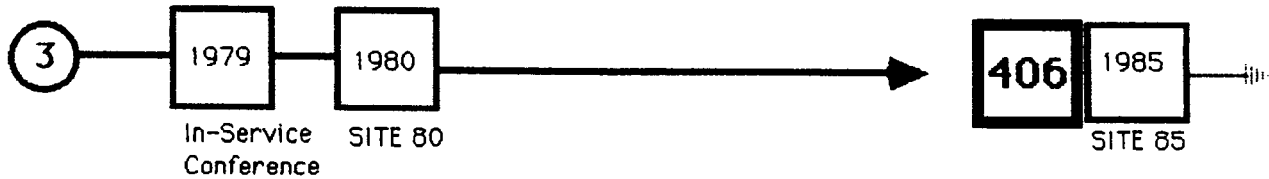


Figure 4.6: Conferences and Summer Institutes on In-Service (Influences on Education 406)

In recent years, the Faculty of Education has sponsored a number of events, conferences and Summer Institute in Teacher Education (SITE) programs on the continuing education of teachers. Three recent examples and resultant publications are particularly relevant.

1979: In-Service Conference

The May 1979 Conference, "In-service: A Means of Progress in Tough Times", included presentations by Bruce Joyce, Ray Bolam, Lou Rubin and Michael Fullan (Wideen, Hopkins & Pye, 1979).

1980: SITE 80

The following year, the SITE program concerned "Strategies for School Improvement" and brought together another international group of educators including Ted Aoki, Lawrence Stenhouse, Jean Ruddick, Richard Schmuck, Phillip Runkel, and return visits by Bruce Joyce and Michael Fullan (Hopkins & Wideen, 1984)

1985: SITE 85

The third entry, the 1985 SITE "Quality Education through Staff

Development" was being planned during the design and implementation of Education 406. The program included presentations by Robert Stake, Walter Doyle, Lou Rubin, Michael Fullan, Maurice Gibbons and David Hopkins (Andrews & Wideen, in press).

The presenters/authors in the above programs helped create a common knowledge base and a climate in the Faculty of Education conducive to the development of field-based courses like Education 406.

(4) Undergraduate Program "Probes" (Figure 4.7)

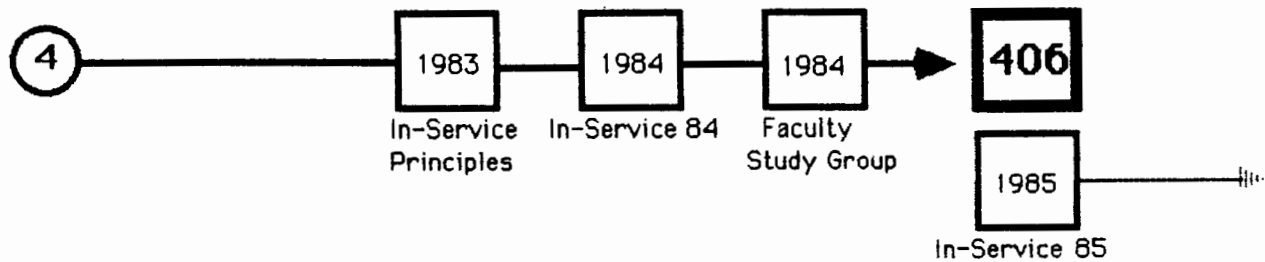


Figure 4.7: Undergraduate Program "Probes"
(Influences on Education 406)

1983: In-Service Principles

Education 406 is one of many in-service programs designed and implemented through the Undergraduate Program Office from September 1983 to August 1986. During that time, the Faculty of Education sought to re-define its role in in-service education. A review of previous in-service programming resulted in a set of in-service operating principles to guide program development (Faculty of Education Document: FE84-6).

Operating Principles for In-Service Program Development

- i. that we concentrate on developing programs for practising TEACHERS (e.g., those with a desire to upgrade, retrain, etc. because of changing needs in the school)
- ii. that we actively encourage COLLABORATIVE PROGRAMMING with teachers, other district personnel and other agencies to meet in-service needs
- iii. that we maximize the use of EXISTING PROGRAMS AND STRUCTURES (e.g., DISC, KNOW) and seek creative combinations to increase their attractiveness for in-service
- iv. that we monitor programs for their IMPACT on the client (Do they make an observable difference in increasing teacher/school effectiveness?)
- v. that we take an active role in advancing effective in-service, relating theory and practice consistently
- vi. that we encourage school-based development projects in conjunction with in-service programming
- vii. that we emphasize the long term COST EFFECTIVENESS of in-service

1984: In-Service 84

In the Spring of 1984, the Faculty sponsored In-Service '84, a lecture/seminar series to explore and advance in-service practice. The series covered such topics as "Educational Excellence", "The Culture of the School", "Self-Directed Action", and "School-Based In-Service". The issues identified by the speakers and participants fed into the development of

Education 406. Especially relevant was the re-affirmation that university sponsored in-service needed to find ways to validate, build on and enhance the classroom experience of teachers.

1985: In-Service '85

A year later, In-Service '85 profiled the three pilot groups of Education 406 which were then in operation and previewed the upcoming SITE 85 on "Quality Schooling through Staff Development". Again, the school-based participants voiced strong support for the idea of extending university coursework into classroom settings.

1984: Faculty Study Group

The "In-Service Operating Principles" were later ratified by a Faculty Study Group and approved by Faculty (May 28, 1986). The Study Group, chaired by the Director of Undergraduate Programs, was charged with recommending approaches for continuing teacher education and was one of several groups convened by the Dean in the Spring of 1984. At that time, the university faced relatively severe budget cut-backs and the Study Groups were intended to re-focus Faculty of Education priorities. In a document to the faculty-at-large, the study group reported:

The Undergraduate Program study group has focussed its discussions on analyzing both credit and non-credit in-service program possibilities for practising teachers. As we all know, the needs of teachers and school districts are changing. Our immediate concern is to develop approaches which incorporate field-based components to follow-up our university-based coursework (Study Group Planning Document: EX84-21)

The report identified three program components (Figure 4.8) and emphasized the extension of traditional university coursework into field settings.

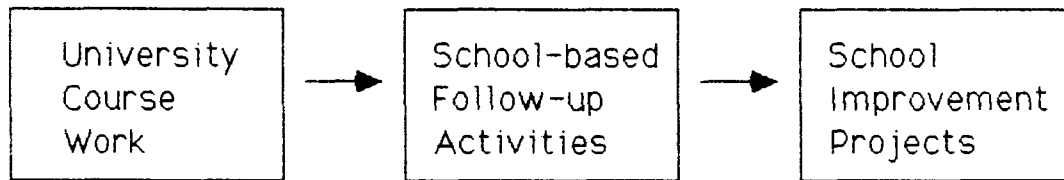


Figure 4.8: Proposed Program Components
(Faculty Task Force Recommendation)

Education 406, then, was a direct response to the Study Group recommendation and, in many ways, represents a full expression of the seven "In-Service Operating Principles".

Freedom and Constraint

Education 406 evolved from a number of long-standing programs and conditions within and around the Faculty of Education. The "In-Service Operating Principles", established links with the field and extant programs all contributed to the development (and the speed of development) of Education 406. It is also worth noting that the organizational climate of the Faculty of Education encourages innovation and risk-taking. Education 406 was one of many 'probes' to explore and advance in-service practice. The freedom to experiment and introduce new combinations of existing programs was a key factor.

However, the freedom to experiment was counterbalanced by some constraining forces.

Program planning is invariably a pragmatic enterprise based on compromise. There are always conflicts between what is valued and what specific limitations there are on the time, energy, money, resources, and skills of the persons and institutions involved. Attention must be paid to the consequences of any trade-off (Brundage & Mackerracher, 1980, p. 79).

Education 406 was introduced at a time when restraint measures were felt within the university and, indeed, the province (Kilian, 1985). Decisions about Education 406 were influenced by factors more economic than educational. For example, the university had put a moratorium on new courses forcing the concepts of the program to be plugged into an already existing slot. Education 406 therefore became a section of an already existing course numbered 406 whose purpose was quite different from that of the Education 406 under discussion (this explains why, as the careful reader will have noted, all the sections of Education 406 begin with Group 2; Group 1 having been designated for a different purpose administered in a different program area). A second factor, allocating resources, also presented a problem in that the supervisory component of Education 406 is somewhat labour intensive. Strategies to identify and/or re-deploy personnel to provide classroom supervision without going too far beyond the FTE (Full Time Equivalent) norms for Instructors were needed. These and other constraints sometimes meant that decisions were based as much on pragmatism as they were on principles. The point provides a reminder that "design is finding the optimum in a particular set of circumstances" (Hanks, Belliston & Edwards, 1977).

The above background information, then, sets the stage for an analysis of the antecedents, transactions and outcomes of the first three groups of Education 406.

Antecedents, Transactions, Outcomes

An *antecedent* is any condition existing prior to teaching and learning which may relate to outcomes... *Transactions* are the countless encounters of students with teacher, student with student, author with reader...; the succession of engagements which comprise the process of education... *Outcomes* to be considered in evaluation include not only those that are evident, or even existant, as learning sessions end, but include applications, transfer, and re-learning effects which may not be available for measurement until long after... in short, outcomes are the consequences of educating -- immediate and long range, cognitive and conative, personal and community-wide (Stake 1973, p. 95-96).

Following a brief overview, the antecedents, transactions and outcomes of the three pilot groups are described. Group 2: Implementation was also the subject of a thorough study, *Problem-Focussed Coursework as a Model for In-service Education: Case Studies of Teacher Initiated Change* (Wideen, Carlman & Strachan, 1986). Group 3: Special Needs took place in Kamloops, the site of one of the Faculty of Education off-campus centres. Group 4: Language Arts was the largest group with 31 students and 14 In-Service Associates. Five students in Group 4: Language Arts were studied in depth by In-Service Associate Barbara McLeod and highlights of the McLeod study (1986) are reported in the following sections.

Education 406 (Overview)

Drawing on the background information reviewed above and the immediate experience of the summer 1984 Surrey course, Education 406 took shape from September to November 1985. A draft course description was used to brief the key players and an expanded Development Team articulated the relationship of the pilot groups to other activities like the Wideen, Carlman and Strachan research project, the upcoming SITE program on Staff Development and In-Service 85. Steve Olliver was identified as the Instructor for Group 2: Implementation of Education 406. As well, Olliver played a support role in the other Education 406 groups and Rob Wood was hired as Education 406 Teaching Assistant.

During the Spring Semester, all three Education 406 programs were carefully monitored. Weekly meetings were held and materials and insights were shared as the programs proceeded. Insofar as Group 3: Special Needs was conducted in Kamloops, some 300 miles from the campus, a special effort was made to keep in touch with the instructor through phone conferences and material exchanges. As well, members of the campus Development Team visited the Kamloops group and conducted guest seminars. In all, 45 students were enrolled in the three sections: seven in Kamloops, seven on the Campus and 31 in the Surrey group. For the most part, the students in the course were elementary teachers interested in completing their undergraduate degree.

Most of the projects undertaken by the 45 students during Education 406 included elements of both curriculum and instructional issues. All 45 students passed. Overall the program was very well received with 41

(N=42) of the participants indicating that they would "recommend Education 406 to [their] colleagues". When asked to "rate Education 406 as an overall professional development experience", 34 students indicated *excellent* with no responses below *average*. Clearly, customer satisfaction was high. Student projects are further detailed in the descriptions of specific Education 406 groups.

Education 406 also received favourable comments from instructors, In-Service Associates and school district personnel. Four more sections of Education 406 were developed and implemented in the Spring of 1986 and the program was officially adopted into the university calendar receiving its own course number, Education 407. As noted in Chapter 2, three more groups of Education 407 are projected for the Spring 1987 semester.

Group 2: Implementation (and Planned Change)

Antecedents: In October 1984, the Development Team began planning the specific details of each component. Group 2: Implementation had the benefit, and added complication, of drawing from a number of resources. The Team had to link Education 406 Group 2: Implementation, the research project on problem-focussed coursework and an overlapping concurrent course, Education 361 Contemporary Issues and New Developments in Teaching. Research project personnel were eager to identify volunteers so they could observe each subject teaching in order to collect baseline data. As well, time was short for advertising the relationship between the Education 406 and Education 361.

Information was added to the general description of Education 406 (Appendix A), to cross reference the Education 361 course. Under the "Theory and Practice of Implementation Component" was added "Participants will attend 4-5 special Wednesday evening sessions of Education 361 on the theory and practice of implementation". The course description for Education 361 advertised:

...four to six sessions will be specific training in implementation and action research designed to provide the teacher with competence to identify problems in her/his teaching and take steps to solve them...it is expected that many who enrol in the course will also be taking Educ.406...to which many of the topics will be related.

The two courses were scheduled back to back to allow the Instructors, Wideen (Education 361) and Olliver (Education 406) to work out their joint and separate timetables.

The common sessions were described as follows:

The central focus around which this training revolves is the problem or problems related to instruction identified by the individual teacher.

These sessions will focus on:

TOPIC 1. Identifying Problems in Teaching.
How does one begin?

TOPIC 2. Action Planning.
How does one do action research?

TOPIC 3. Models of Classroom Change.
What approaches have worked in the past?

TOPIC 4. Implementing Changes in the Classroom and the School.
How does one put good ideas into place?

TOPIC 5. Judging Effects.
How does one know when one has succeeded?

It was decided to front-end load these Wednesday evening sessions with TOPICS 1-4 in the first four weeks of the semester (January 16, 23, 30 and February 6, 1985) leaving TOPIC 5 to be addressed after students were well into their class-room based projects (March 6, 1985).

Armed with the course descriptions and information about the research project, the Development Team was ready to inform students in Fall classes about the Spring options. In retrospect, the Education 406 concept seems relatively clear and simple. Initially, however, much time was spent in clarifying descriptions of the components and their interrelationship. Even then, the Teaching Assistant reported that he was not convinced his brief information visit to classes was enough time to

adequately explain the options. In any event, Education 406 Group 2: Implementation ended up with an enrollment of seven students, five of whom volunteered to be subjects in the problem-focussed coursework research project. Two students also elected to enrol in Education 361.

Six of the seven students taught at the elementary level (one secondary) in classroom settings (one was an itinerant Intermediate Special Education teacher). Three of them held bachelor degrees in Education or General Studies with the remaining four working on the final year of degree completion. Their teaching experience ranged from 2-18 years, the average being 9.5.

The Group 2 Instructor, Olliver, was an experienced Faculty Associate with training in supervision. He had spent the previous year and a half working with student-teachers in both classroom and workshop settings. In a later interview, Olliver commented, "I think having had the background as a Faculty Associate was really important because I knew how to collect information, how to be non-threatening." (Wideen, Strachan, & Carlman, 1986, p. 167).

Transactions: Through the sessions in theory and practice of implementation, and in consultation with Olliver all the students in Group 2 formulated an individual project. The "Action Research Contract" (Appendix G) was adapted from the self-directed learning contract format (Hopkins & Norman, 1982). Most students saw their projects as having both a curricular and instructional focus. Examples of projects include:

- introducing a grade 1 science unit using discovery learning techniques

- implementing a section of a new Grade 3 social studies curriculum
- developing a personalized system for kindergarten children to learn the alphabet
- refining questioning techniques
- designing procedures for teaching drawing to senior high school students

The "Action Research Contract" worked well for the students and, as one expressed it, "...was an important aspect as it provided me with a sense of direction, and forced me to maintain my focus". The Group 2: Implementation Project Summary forms, and the assessment of Olliver, indicates that the projects were well conceptualized.

During the semester, Olliver observed each student in their classroom between six and eight times for approximately 1-2 hours on each occasion. Using a clinical supervision model, he worked with students to jointly decide on the focus of the observations and later discussed the implications of the data in a post-observation conference. As Olliver described it:

In most cases I gave them feedback and encouragement. I helped them clarify their thinking. Sometimes I did it through leading questions...I coached a lot. That is, I gave some ideas: "You can do this, you can do that. Why don't you read this? It'll give you a better understanding." With a lot of them, I had to give a lot of encouragement...They were doing something totally new, and when you're doing something totally new, you're going to make mistakes." (Wideen, Strachan & Carlman, 1986, p. 164).

The role of the In-Service Associate was perceived by the students as very important. All seven participants "strongly agreed" that the role was

"necessary to the success of Educ. 406" and also indicated strongly that the feedback provided helped them to monitor their progress. Example comments from students include:

"His comments regarding my project were vital. These helped me establish areas of change..."

"Extremely valuable -- associate would have to be chosen very carefully. Steve was excellent"

"I don't think it [classroom support] can be improved because it was individualized and flexible."

Confirming Olliver's sense that the In-service Associate must be supportive and non-threatening, all students commented on the importance of the support they received. Support was derived from other sources as well and the importance of this aspect of Education 406 cannot be overstated. In the concurrent study by Wideen, Strachan and Carlman (1986), they note that "...in no situation did we observe a change [of teacher behaviours] where some type of supporting structure was not in evidence" (p. 188).

Altogether, the Group 2: Implementation students met together as a group on ten occasions, five of them devoted to the structured topics on the theory and practice of implementation. The remaining five seminar sessions emphasized more open-ended and informal sharing among students. In general, the seminar component was not valued as highly by the students as the time spent with Olliver in individual consultation or supervision, although the seminars were not viewed negatively.

Outcomes: Student ratings of Group 2: Implementation were extremely high. All seven indicated that they would recommend the course to a

colleague. When asked to identify the most valuable aspect of the course, six students highlighted the opportunity to work with an In-Service Associate in their classrooms and all commented on the individual project component.

The least valuable aspect for four of the students was the seminar component. Three felt the number of seminar sessions was about right. All students perceived the five theory and practice sessions to be useful either in formulating their projects or as "generally interesting". It should be noted that although the Questionnaire (Appendix C and D) addressed the separate components of Education 406, students often qualified their response with reference to other components. It appears that students viewed Education 406 quite holistically.

Six of the students rated Education 406 excellent "as a professional development experience". When asked to compare "the classroom-based emphasis to other university credit courses", all seven commented favourably.

"Extremely worthwhile. Much more sensible and practical than most coursework I've taken"

"Projects in most courses have no immediate impact on the classroom...NOT SO WITH 406"

"Extremely valuable"

"More Education classes should have in-class components"

"A very practical, useful experience that stimulates professional growth."

"Far superior to the normal 'theory-based' emphasis of most Educ courses"

"Very highly. It is one thing to take courses, write papers and do well in theory. To put into practice is another matter."

All seven students indicated yes to the question, "Has Educ 406 prompted any changes which you feel will continue in the future?" and most commented that they intended to continue the initiatives they began in the course.

Obviously, the students in Group 2: Implementation liked it. It was practical and many of the questionnaire and interview responses indicated that students appreciated the amount of responsibility they had in determining the substance of the course. Did it actually contribute to significant change in their performance? The concurrent study by Wideen, Strachan and Carlman (1986b) focusses directly on this question and fills in some of the answers not obtainable from the questionnaire self-report data. *The Problem-Focussed Coursework* study, although tentative, finds that changes in classroom practice could be attributed to the university coursework undertaken by the subjects in the study. It should be pointed out that the subjects were also observed ten times each by the members of the research team. It is difficult to separate the impact of those interventions from the influence of Education 406. Nonetheless, the study does demonstrate that coursework can lead to observable changes, although the "changes varied among the people and the settings involved." (p.7)

Group 3: Special Needs

Antecedents: Kamloops is a small city located 300 miles from the SFU campus. Since 1975, the Faculty of Education has operated a "store-front" teacher training site in Kamloops and other areas of the province. In some ways the off-campus sites are unique and idiosyncratic, although the basic structures of the pre-service program are the same as those on campus, including the emphasis on the clinical supervision and the use of Faculty Associates and School Associates.

The Faculty of Education traditionally schedules undergraduate courses at these off-campus locations. In the Fall of 1986, for example, Education 361: Contemporary Issues in Educational Practices, with an emphasis on special education, was taught in Kamloops by Cheryl Hearn, a former Faculty Associate. These off-campus courses attract teachers and prospective teachers for various reasons. The main client, however, are those who seek to complete undergraduate degree requirements. Ministry of Education statistics for 1983 indicated that Kamloops school district had 66 teachers trained at Simon Fraser University who had need of degree completion.

As stated in Chapter 1, a main thrust of Education 406 is to more closely align university coursework with the professional development needs of teachers. The large population of potential degree completion clients and other factors made Kamloops a convenient location for a second group of Education 406. Hearn was contracted to coordinate the Kamloops course and a small pilot group was drawn from students in her Fall course. For the students, it was an opportunity to implement some

aspect of their study from the Education 361: Contemporary Issues course. The course attracted seven students, five from the Fall course and two additional students admitted "by permission of the instructor". Hearn played a variety of roles in the Kamloops group. Besides Instructor and In-Service Associate, she was also the interpreter of the program to the students and school district personnel.

Most of the planning for Group 3: Special Needs was conducted by telephone between Hearn in Kamloops and Norman on campus, although links were purposefully established between Hearn and other members of the Development Team, with the Education 406 Teaching Assistant responsible for collecting and distributing materials from the various groups. Steve Olliver consulted with Hearn and later travelled to Kamloops to do a guest seminar.

Transactions: Over the first few weeks of course, students in Group 3: Special Needs developed individual projects using the self-directed learning contract (Appendix H) from *Professional Development: A Self-Directed Study Course*, which was used as the course text. The Special Needs theme of Group 3 ended up more in name than in reality and only two of the projects incorporated elements of working with special needs children. The majority of projects involved an implementation in "regular" classroom settings. Most students classified their projects as a combination of curriculum and instructional concerns, and most involved the planning and implementation of a unit of instruction.

The focus of the projects were:

- a creative drama unit with grades 1 and 2 children

- integrating three classes (Grades 2 and 7) for selected units
- initiating self-directed learning among grade eight students
- a computer/logo unit with grade three children
- a speech arts unit with kindergarten children
- a mini-walkabout at the grade seven level
- a "drawing on the right side of the brain" unit with grade seven students

Two of the above projects emphasized teaching pupils how to learn, a theme also evident in other projects. This focus arose for a number of reasons: the use of the *Professional Development: A Self-Directed Study Course*; a guest lecture from Maurice Gibbons during coursework in the previous semester and; the philosophy of the instructor.

Hearn supervised each student in their classroom between three and eight times (average = 4.8) spending an average of 6.3 hours total with each student (range = 3 to 15 hours). In comparison to Education 406: Group 2: Implementation, students received significantly less supervision time although all reported that they felt "the number of visits and amount of time spent [was] adequate given [their] specific project". The difference in supervisory time between Hearn and Olliver resulted in part from different contractual agreements with the university. Olliver was on a full-time contract to instruct in Group 2 and help pilot the Education 406 concept whereas Hearn was hired as a Sessional Instructor to teach Group 3, a load normally designated as half-time.

Hearn, like Olliver, had been trained in the clinical model of

supervision and used the basic format of sandwiching her observations between a pre- and post-conference. Student comments indicate strong appreciation for the classroom visits and particularly her supportive style. Example comments include:

"Cheryl was most supportive and helpful to me. The role I believe is absolutely vital to the success of such a course"

"Cheryl was a tremendous source of support."

"All of Cheryl's time spent in the classroom was positively reinforcing and motivational for both the students and myself"

One student alluded to the 'ugly stepsister' dimension of the In-Service Associate role ("Someone has to evaluate your work and give feedback. Most people cannot work in isolation") while another noted the accountability factor by commenting, "...an associate is necessary to ensure that the course is not abused by those merely seeking credit". In response to the questionnaire statement "The role of In-service Associate is necessary to the success of Educ 406.", six of the students "strongly agreed".

The students in Group 3: Special Needs met as a group eight times. The distinction between the theory and practice of implementation component and the seminar component was not as clear as in Group 2: Implementation. The two components were more or less integrated with informal discussion of readings, implementation issues and student contracts being the normal seminar format. In February, Olliver visited the Kamloops group followed by a second guest speaker, Norman, on March 12, 1985. Both those sessions served to link the Kamloops group with the other two

groups of Education 406 on campus and had multiple purposes. Besides enhancing the seminars, the visits were seen as a way of supporting Hearn and sharing progress reports.

Olliver's seminar with the students described the the five 'formal' sessions on implementation used in Group 2: Implementation, the concurrent research project being conducted by Wideen and associates, his perception of the role he was playing as In-service Associate and general models of implementation. Discussion focussed around comparing the students projects between the two groups. The March visit by Norman focussed on three "sets of lenses" through which to view Education 406: the skills and attitudes of self-directed learning as summarized in the Group 3 text (Hopkins & Norman, 1982); the teacher-as-researcher perspective of Stenhouse (1984) and; the research on coaching and transfer by Joyce and Showers (1980, 1984).

In general, the students in Group 3 identified the seminar sessions as playing a role in helping to solve problems and monitoring and evaluating their progress. Like the students in Group 2: Implementation, they viewed the project component and the classroom visits by Hearn as relatively more significant than the seminar component.

Outcomes: Ratings from the Kamloops group were very high. All seven indicated that they would recommend the course to a colleague for reasons like:

"A practical and useful way of learning something new"

"...an ideal opportunity to try out the new teaching strategies or curriculum you want to implement"

"...a chance to grow professionally with the added attraction of being helped, guided and encouraged by an In-Service Associate"

"...practical, educational, hands on, useful"

Strongest features of the course identified by students included the satisfaction of implementing the project and, as with Group 2, the support from the In-Service Associate and fellow students. One student "especially appreciated the creditability [sic] given to pursuing my interests". Only two students responded to a query about the "least valuable" aspect of the course, both identifying some of the seminars. However, both responses qualified that the seminars were useful, just not as valuable as other aspects of the course.

Students in Group 3: Special Needs rated Education 406 very highly in comparison with other university coursework mainly citing "practicality" as the reason. The student emphasis on practicality is echoed in the results from Group 2 and Group 4 and reinforces what Doyle and Ponder refer to as the "practicality ethic" (cited in Wideen, Carlman & Strachan, 1986, p. 183). This perceived dichotomy between theory and practice is addressed by others (Stake, 1984; Cochrane, 1986) and seems to be a key reason for the students' enthusiasm for Education 406.

All seven students gave an "excellent" response when asked to "rate Educ 406 as an overall professional development experience" and all indicated that they felt the course had prompted changes that "will continue in the future".

An analysis of the Project Report Forms (Appendix J), supported by the observations of Hearn, indicates that the Group 3 projects were well thought out and demanding of time and, in some cases, substantial risks.

As with Group 2, questionnaire responses and other data indicated a high degree of satisfaction with Education 406. Several comments alluded to their appreciation that the university was making a conscious effort to experiment with coursework that better met their needs, a theme that appears in comments from students in other groups. A statement by Hearn (personal communication) sums up the the tone and feeling of Group 3: "...people can plan and act autonomously, that action breeds confidence, that their is dignity in risk".

Group 4: Language Arts

Antecedents: Group 4: Language Arts was based in Surrey, a large school district (83 schools) about one hour drive from Simon Fraser University, and grew directly out of the collaboration between the Faculty of Education and Surrey on the Summer 1984 course. Relationships between key university and school district personnel were extremely good. As with Kamloops, part of the rationale for targetting Surrey was the presence of a large number of SFU Professional Development Program graduates who were working towards degree completion. Ministry statistics set the number at 144.

Another important condition that contributed to the decision to establish Group 4: Language Arts was the availability of a flexible and creative Instructor, Meguido Zola, with expertise in Language Arts and an interest in In-Service. One of Zola's approaches to the professional development of teachers emphasized collegial dialogue, a process he calls "Teacher Talk" (Zola, 1981).

Teacher Talk is not a course, not a training program, not a teaching, management, or evaluation system. It is not another prescriptive package. In fact, it is not a product at all.

Rather, Teacher Talk is a process. It is an open-ended, flexible, individualized forum for reflection and dialogue. It provides its participants with a psychologically "safe," non-evaluative framework in which to think about, analyze, and articulate their educational beliefs, understandings, and practices.

The focus of Teacher Talk is twofold: first, to engage participating teachers in systematic analysis of their purposes and intentions in teaching, their classroom practices, and their daily teaching experiences; second, to provide them with mutual support and sharing of understanding, insights and ideas. (p.143-144).

The approach advocated by Zola was very much in tune with the seminar and theory and practice of implementation components of Education 406. Zola was assigned to teach the Surrey-based Education 406 and another course, Education 472-4 Designs for Learning Language Arts. The outline for Education 406 included optional sections of Education 472, which was "modularized" into discreet workshops. The plan so far accounted for three of the Education 406 components. The Seminar and Implementation components were to be addressed by 4-6 teacher talk sessions. The related coursework or content was delivered through modules of Education 472 and Zola as a Language Arts resource person.

It was hoped that Surrey would play a role in providing the other component, classroom supervision, in that quite independent from the clinical supervision initiatives of the Faculty of Education, Surrey school district had adopted the clinical model to mount a systematic training program in instructional supervision for administrators, helping teachers and teachers. Terry McBurney, Deputy Superintendent of Surrey, was

called and a meeting arranged for November 7, 1984.

The Surrey school district personnel were very supportive of the Education 406 concept. In fact, they envisioned that the program could serve another purpose if the supervisory team was culled from people who had recently undertaken district sponsored supervisory training. In that way, they suggested, the Education 406 students would get the benefit of supervision by a colleague and the supervisors would get the opportunity to practise and refine their supervisory skills.

The meeting was characterized by a genuine cooperation and it is worth noting that after reaching basic agreement, all items in the discussion were treated as interesting problems to solve rather than stumbling blocks that might jeopardize the project. Both school district and university personnel realized that given the tight timelines, extraordinary procedures would have to be used. It was decided to jointly host an information meeting for prospective students at the Surrey school district Curriculum Resource Centre. The meeting was set for December 3, 1984.

Based on the Ministry list of SFU teacher training graduates without first degrees, Surrey school district mailed an invitation to teachers to attend the information meeting. The package sent out included the draft course outline and a covering letter from the Deputy Superintendent. At the meeting, McBurney welcomed the approximately 35 attendees and affirmed the District support for the project. Norman explained the basic concept of Education 406 and Zola outlined the specific themes and procedures proposed for Group 4. Prospective students had an opportunity to ask questions and those interested were 'walked' through admissions

and registration procedures (by this time, it was too late for normal registration procedures and the paperwork for the 31 students who enrolled in the class had to be specially handled by undergraduate program staff).

All the students enrolled in Group 4 taught elementary grades with 25 at the kindergarten or primary level. The Surrey students had an average of 9.3 years of teaching experience (range 2 to 17 years). All but six were degree completion candidates and all but one had done their original teaching training at Simon Fraser University. Six of the Group 4: Implementation students also enrolled in Education 472. The first group meeting was scheduled for January 17, 1985 at Simon Cunningham School, chosen as it was relatively central in the geographically large district.

Five of the students enrolled in Group 4: Language Arts formed a unique satellite group with a different emphasis. The five students were all from the same school and made the request to work on "teaching for thinking" skills. Barbara McLeod, a former Faculty Associate at Simon Fraser University who was currently a Surrey school district Helping Teacher, volunteered to conduct seminars and provide supervision. A detailed picture of this sub-group is provided by McLeod (1985) in a Masters Project, *A Case Study of a School-Based In-Service Training Program in Teaching for Thinking: Design, Implementation and Analysis*. The transactions of this discreet group are treated separately in the next section along with further information about McLeod's study.

Transactions: The initial meeting of Group 4: Language Arts was held on January 17, 1985 at 4:00 pm and, in addition to the 31 students, was attended by university and school district personnel and 15 potential

In-Service Associates. The In-service Associate group was composed of administrators, Helping Teachers and other Surrey teachers who had received some training in supervision. They had been contacted through McBurney's office and asked to attend the meeting to decide if they wished to become involved. The university was represented by Norman, Zola and Olliver. McBurney and Surrey principal Dave McLeod officially represented the school district. This first meeting, then, brought together all the major players in Group 4: Language Arts for the first time. At this point, although the 45 plus people gathered in the library of Simon Cunningham School had some vague notion of what constituted Education 406, details of the course, especially the supervision component, were very sketchy.

McBurney opened the meeting and voiced the district's strong support for the Education 406 program and collaboration with the university in general. He reviewed the history and background of events and explained that this meeting was largely devoted to sorting out procedures and defining roles. Norman outlined the rationale and philosophy of Education 406, explaining that it was not a normal "course" but a set of structures intended to support the individual initiatives of teachers. Rather than think in terms like 'student' and 'instructor', Norman suggested it would be more productive if all personnel thought of themselves as 'participants' in Education 406 with various people providing different roles. This "we're all in this together and let's figure out how to make it work" became the *modus operandi* of the meeting and in fact characterized many of the transactions in Group 4: Language Arts.

Zola then introduced the Language Arts theme, and invited students

to discuss individual project plans. When the students broke into small groups, the potential In-service Associates met separately to discuss the role. Olliver acted as a resource person to the Surrey In-Service Associates and he explained the function of the In-Service Associate. Again, the support of the district, through the presence of McBurney and McLeod, was very evident. It was emphasized that release time for supervision was very limited so that the In-service Associates would generally have to find ways to provide supervision without calling in a paid substitute. Members of the group were asked to consider their involvement and inform Dave McLeod, who offered to coordinate the match-up between In-Service Associates and students. Fourteen of the group volunteered their services.

The match-up process was more complicated than anticipated and was not completed until February 5, 1985. The criteria used to match students and associates was a combination of individual requests, grade level/subject area compatibility and/or geographical convenience. As McLeod noted in correspondence to all participants, he

...tried to meet all individual requests with special attention to those made by the students...Our district, the University, and I believe all of the participants, are quite excited about the possibilities of this project. To that end please feel free to call Terry McBurney..., Mequido, or myself if you have any qualms, questions or hesitations...Good luck.

McLeod also instructed students to take the initiative in making contact with their In-service Associate to arrange the first meeting. In most cases (ten), the In-Service Associates were responsible for supervising only one student, with a maximum load of seven. The seven kindergarten

teachers were supervised by the primary Helping Teacher, who was also a student in the course.

As might be expected, the supervision component was much more hit and miss than in the other two Education 406 groups. Students in Group 4: Language Arts had an average of 2.2 classroom observations (range 0 - 5) for an average total of 2.5 hours (range 0 - 5). In addition, some student/In-Service Associate teams met outside classroom visits to discuss the projects. Although this is far less than the supervision afforded to students in the other groups, only two students indicated that "the number of visits and amount of time spent given [their] specific project" was inadequate. One student in this category, who had four observations, felt the supervision component was so valuable that she would have liked weekly visits. The other student stated that her "...associate had no background knowledge in the area of [her] project..." and seemed antagonistic about this element as for some reason her original request for a particular In-Service Associate had not been met. Four of the students disagreed or disagreed strongly with the statement that "the role of the In-service Associate is necessary to the success of Education 406".

All five students in the satellite "Teaching for Thinking" group and the seven students in the kindergarten group were laudatory about their In-Service Associate and seemed to have formed a strong affiliation within their respective sub-groups. From the kindergarten sub-group, typical student comments include:

"Our Supervisor was available to give demonstration lessons, help in class & suggest schools to visit"

"My In-Service Associate worked as an equal within the Kindergarten group. I feel this was beneficial"

"Lynn provided us with a great deal of resource material as well as information and support"

All five students in the "Thinking" group were extremely positive about their In-Service Associate.

It should be noted that many students found or created support structures other than their In-Service Associate. Most cited that the collegial support derived from other students in the course was an important factor. In the "Thinking" group, the active involvement of the principal was seen as extremely valuable by the students.

The project component in Group 4: Language Arts, was formalized through an "Individual Study Plan for In-Service Professional Development" (Appendix I) and most projects focussed on Language Arts. Examples include:

- implementing sections of a new provincial Kindergarten Curriculum
- developing an independent writing program for Grade 1
- introducing an individualized reading program

Besides the five students who were enrolled in the Education 472: Designs for Learning Language Arts, 14 students attended modules of the Language Arts course, with nine of those attending four or more times.

The six Education 406 seminar sessions, all held in Surrey, mainly emphasized project planning and implementation utilizing the techniques associated with Zola's teacher talk process. Unlike, say, Group 2: Implementation there was no formal input on the theory and practice of implementation but rather an emphasis on individual reflection (students

were encouraged to keep a journal) and small group sharing. Again, many students in Group 4 met in small support groups over and above the official requirements of the course, most notably the Kindergarten cluster who met under the leadership of their In-Service Associate and the "Thinking" group who met on 10 occasions with their In-service Associate (and often the principal).

The dynamic of Group 4: Language Arts is difficult to track, with students making use of different combinations of resources and personnel to plan and implement their projects. It seems that what was lacking through not having consistent supervision by a single, university appointed In-service Associate, as in Groups 2 and 3, was made up in part by student initiative. For one student, the experience of the various components of Education 406 and Education 472 became inseparable: "...they were so closely interwoven, so much so that by the end of the two courses it was hard for me to discern what I did...I was also learning a lot of it through the sharing sessions..."

On February 18, 1986 the University hosted a dinner meeting for Surrey personnel and In-service Associates. At that meeting McBurney outlined the School district's reasons for their involvement. Surrey wished to:

- promote effective models of In-service
- encourage innovation and reward the energy of it's teachers
- provide support for teachers
- assist with the integration of theory and practice
- re-inforce collaboration with the university.

Most of the meeting, organized and chaired by Olliver, was spent exploring

how the In-Service Associates might best assist their colleagues, i.e., the students in Group 4. A final meeting with the Surrey In-Service Associates was held on May 8, 1985.

Outcomes: As in Group 2 and Group 3, students in Group 4 rated Education 406 very highly. All respondents to the questionnaire (n = 28) indicated they would recommend Education 406 to colleagues, citing "practicality", the individualized project and the support component as strong features. All 28 felt that the course had "prompted...changes" they felt would continue in the future. In response to "Please rate Education 406 as an overall professional development experience", 21 indicated "excellent", four said "good" and one "average".

Most students indicated that school district involvement was significant to them, although two said it was unimportant. Several students commented that they appreciated the district interest in their professional growth. Not surprisingly, all students preferred that the course was located in Surrey, rather than on campus, citing the time saved in travel and their energy level at the end of a teaching day.

The items most frequently mentioned when students were asked to identify the most valuable aspect of the course were the support/sharing component followed by the individual project. Elements of support in many dimensions of Group 4-- student/student, student/instructor, student/In-Service Associate, student/university, and student/school district -- was evident in all feedback about the program.

Feedback was also gathered from an afternoon focus group meeting with the In-Service Associates held on May 8, 1986. In-service Associates were asked individually to respond to four questions and then

discuss and report their views in small groups of three to five. The anecdotal comments of the three groups are summarized under each of the focus questions.

1) From your general observations, how would you rate the value of Educ. 406 in terms of professional development?

All three groups were unanimous in their enthusiasm for the program citing the support aspect as the key factor. The terms "support", "network", "trust" and "ownership" were used by all three groups and they noted that the support element extended beyond the core group of students and In-service Associates. Other teachers and principals were "pulled in" through staffroom meetings between students and In-service Associates. One group observed that students seemed to feel "better about their teaching" through their involvement in the program. Another group stressed the "trust" factor and felt the strength of the program was that it "...allows freedom from the students' perspective -- enables them to take risks & try new programs".

All groups also noted that they were initially unclear about the In-service Associate role and the Education 406 "model". Many of them felt they were just beginning to understand the program as the pilot was ending.

2) How did you feel about your ability to help the person(s) with whom you were associated in Educ. 406?

All groups felt that in spite of initial confusion about the "philosophy" of Education 406 and the expectations of the In-service Associate that they were of assistance to the students they supervised. One group stressed that the relationship also resulted in professional growth for themselves. Most In-service Associates described their role in terms of informal

support rather than "supervisor" in the sense of formally using the supervision cycle (results from the student questionnaire confirmed this impression).

3) In what ways could your role as In-Service Associate have been further supported by SFU? by Surrey District?

All the groups emphasized that the role definition and expectations of the In-Service Associates needed to be more clearly defined. Other items, like the match-up procedures and the need for release time for supervision were also recorded by all three groups.

4) Other information.

Many of the comments in this section echoed the above points with the support element re-emphasized. In the plenary discussion that followed the small groups, Education 406 was viewed very favorably and all of the In-Services Associates (n=14) indicated that they would again become involved.

The concurrent study by McLeod, *A Case Study of a School-Based In-Service Training Program in Teaching for Thinking: Design, Implementation and Analysis*, offers a detailed analysis of five of the students enrolled in the Surrey Education 406. The experiences of this sub-group were quite different from the rest of the students in Group 4 although some of McLeod's findings are relevant to Education 406 in general. This group experienced a more rigorous approach to the practice, feedback and coaching elements of supervision, a factor McLeod identifies as the most important element in the students successful application of teaching for thinking skills. The other key factor was that all five students were from the same school and had the active involvement and

support of the principal. As McLeod notes, the mutual and outside support of the students was "...alive everyday in staffroom discussion".

McLeod's study identified the following elements as important to the "...transfer of new learnings to classroom practice" (p. 104):

Components of effective in-service programs

- a) voluntary participation in the in-service program
- b) a long-term program including a series of presentation and classroom practice sessions to allow individual needs and concerns to surface and to be addressed
- c) a resource person who is skilled in the content and processes being presented
- d) a feedback component to classroom practice tasks including both self-analysis and observation
- e) built in school-based support systems for both feedback and coaching purposes
- f) active support from the principal

5. DISCUSSION and RECOMMENDATIONS

Time is the secret.

Joseph Pintauro

Discussion

This chapter reviews highlights from the data, evaluates the effectiveness of Education 406 and identifies five key strengths of the program.

In many ways, the McLeod study (1985) re-inforces the findings of Wideen, Carlman and Strachan (1986). Both studies document evidence of change in classroom performance in circumstances where students received significantly more classroom supervision than the majority of Education 406 students. Both studies note the importance of support, in various forms, and especially the role played by a skilled In-service Associate. Wideen, Carlman and Strachan found that the degree and kinds of changes varied greatly among subjects. They emphasize five influences that account for the differences (paraphrased):

1) Conceptual framework: Teachers successful at implementing change seemed to be informed by a coherent view of the subject matter, how children learned it and how it should be taught.

2) Motives: For significant change to occur, teachers need to recognize the discrepancy between what is currently happening in their classroom and what could exist if they implemented alternative strategies. This level of motivation goes beyond seeking credit and hinges on touching the meaning system of the teacher.

3) Support structures: In order for teachers to accomplish changes in their classrooms, a significant level of support is needed.

4) Process of change: Teachers who understand the processes of change that they experience are more likely to change. These processes are often idiosyncratic and need to be understood as developmental and individual.

5) Reflection: Teachers who realistically reflect on their teaching have an advantage in introducing change.

Obviously, there is no 'quick fix' if change is the goal. Time is needed to work through the inter-related processes inherent in the above influences and/or the elements previously identified by McLeod. One of the key strengths of Education 406, as professional development, is that it provides a three month time-span for teachers to implement their projects. The extended time factor overcomes a major drawback identified in the professional development techniques used in, say, *The Self-Directing Professional* (Morton, 1981). Time, however, is not enough.

We do not have conclusive evidence of change in teaching performance in Education 406 students beyond the clusters reported in the two concurrent studies. Although every Education 406 student completed an individual classroom-based project and all 42 respondents reported that the changes they initiated in Education 406 would continue into the future, we have no hard data to confirm this. Just as time is not enough, it is likely that the structures of Education 406 are *necessary* although not *sufficient* conditions to produce desirable changes. Put another way, the premises -- student-directed, classroom-based, process-oriented -- and structures, as expressed by the Education 406 components, provide a framework that increases the probability, but does

not guarantee, that change will occur.

The self-report data from the questionnaires attests to the popularity of Education 406. The following comments review the highlights from the questionnaires and other sources of information.

All 42 respondents indicated that they would "recommend Educ 406 to [their] colleagues" (Q20). When asked how they would "describe Education 406 to a colleague interested in taking it", comments emphasized three main attributes: the practicality of the course, often described as "hands-on" and "useful"; the student-centredness usually expressed as a chance to pursue a personal interest in their own classroom; the support provided by the In-service Associate, peers and others. The language used in the anecdotal comments indicated high levels of satisfaction. Examples include "exciting way to grow", "inspirational", and "an opportunity to explore something new".

The same attributes -- practical, student-centred, supportive -- emerge from the the question "How would you compare the classroom-based emphasis of Educ 406 to other credit courses you have taken?" (Q17). All 42 responses indicate satisfaction with Education 406, most often expressed in extremely positive terms. The same pattern is repeated in comments which identify "the most valuable aspect of Educ 406?"(Q18). Group 4: Language Arts respondents stressed the support element (16 responses) and the individual projects (14 responses) as highlights of the program.

It is interesting to note the vocabulary used by the different groups in answer to the question about the most valuable aspect. Group 2: Implementation (n=7), for example, used words and phrases --

"implementation", "integration of theory and practice", "coaching", "establishing a baseline" -- that reflected the emphasis of the model of change presented in the seminars. The other groups' use of descriptors reflect a different emphasis. Group 3: Special Needs often referred to teaching a new "unit" of instruction and Group 4: Language Arts talked about doing a "project" and "sharing" information in "support" groups.

Far fewer responses were prompted by "the least valuable aspect of Educ 406" with the seminars or group sessions mentioned three times in Group 2: Implementation (n=7) and twice in Group 3: Special Needs (n=7). In Group 4: Language Arts (n=28), four comments pointed to the whole group sessions as least valuable, three mentioned filling out the evaluation or Project Report Forms (Appendix J) and four students focussed on the part played by their In-Service Associate.

Questionnaire data on the role of the In-Service Associate was consistent between Group 2: Implementation and Group 3: Special Needs where all respondents "agree" or "strongly agree" that the In-Service Associate "provided [them] with valuable feedback and helped [them] monitor [their] progress" (Q13). The same unanimous response appears in the question that "the role of In-service Associate is necessary to the success of Educ 406" (Q14). In Group 4: Language Arts, twenty students indicated "agree" or "strongly agree". Four students in this group "disagree" or "strongly disagree" with the proposition that the In-service Associate was "necessary to..success", citing a mismatch of interests between themselves and their In-service Associate or the In-service Associate's lack of knowledge in the content area of their project.

In addressing whether or not their project "had a significant impact

on [their] classroom teaching" (Q3a), the majority in all three groups (37 out of 42) "agree" or "strongly agree". The majority disagreed with the proposition that their project impacted on their school (Q3b) except for the five students from "Thinking" sub-group who, as noted earlier, were from the same school.

Responses to "Please rate Educ 406 as an overall professional development experience" (Q24) were 34 "excellent", 6 "good", 1 "average" and 1 no comment. The tape recorded interviews of the five students in Group 4: Language Arts confirm the questionnaire results on student ratings of Education 406 as a professional development experience, as do the case studies of the five Group 2: Implementation subjects.

The teachers in both versions of Education 406 were appreciative of the opportunity to work on projects which were relevant to their classes and to their styles of teaching. They liked having non-evaluative feedback and the chance to discuss what they were doing with other educators. In addition, some teachers in both versions of Education 406 volunteered information that the courses gave them an impetus to reflect on their teaching and judge techniques and ideas on the basis of how well they fit in with their beliefs about teaching and their philosophies of education (Wideen, Carlman & Strachan, 1986, p. 170).

Other methods of data collection -- observations and field-notes, document examination, informal feedback from participants -- reinforce the results of the questionnaire and the findings of the concurrent studies. As well, various informants -- Instructors, In-service Associates, school district personnel -- confirm the overall impression that Education 406

succeeded in more closely aligning university coursework with the professional development needs of teachers.

Besides alignment, the other traits and accompanying questions identified in Chapter 2 are also addressed in the analysis of the data. The overall view of Education 406 indicates high levels of satisfaction among the various participants. Student survey data and discussion with the Instructors and developers indicate that the components of Education 406 fit together and complement one another (integration). The issue of integrity, or how well Education 406 expresses the principles of self-education and the other fields upon which it is founded, is best dealt with by returning briefly to the template provided by Stake's matrix.

Chapter 4 and the relatively full description of the antecedent, transaction and outcome stages establishes the congruence between logical and empirical contingencies. The concurrent studies of McLeod, and Wideen, Carlman and Strachan, supply an in-depth view of sub-sets of Education 406 students and demonstrate that change in teaching does not come easy. The second part of Stake's model demands that we judge Education 406 against the relative standards of other programs and the absolute standards established in the literature.

Relative to other university coursework, Education 406 compares very favorably, both in terms of student satisfaction and in terms of establishing the necessary conditions for change at the classroom level. The practical nature of Education 406, although important in student perceptions, is not the only factor that accounts for this popularity. Wideen, Carlman and Strachan (1986), note that a sampling of 70 teachers taking university coursework indicate that teachers are primarily

interested in "practical ideas for the classroom" (p. 180), a finding reinforced by Question Q16 ("What do you expect university coursework to do for you?") on the Education 406 questionnaire. And yet, interviews with Education 406 students reveal that they also recognize the need to understand what they were doing at a conceptual level. One explanation is that students "...begin to understand the importance of the fit between any method and their philosophies of education" (Wideen, Carlman & Strachan, 1986, p. 180)

McLeod's study stresses the effectiveness of the "Thinking" sub-group of Education 406 compared to other models of professional development, with particular attention to: the length of the professional development program; classroom practice and diagnostic feedback; the school as the unit of change; cost effectiveness; components of effective in-service programs (outlined in Chapter 4).

From both the university coursework point of view (Wideen, Carlman & Strachan, 1986) and the school point of view (McLeod, 1985), then, Education 406 has been identified as very effective.

On an absolute standard, Education 406 can be judged against the literature in a variety of areas. For example, feedback, coaching and the transfer of training (Joyce & Showers, 1980, 1984), the emphasis on autonomy and understanding advocated by Stenhouse and others (1984; Ruddick, 1984), and the self-education principles and assumptions (Gibbons, 1980; Knowles, 1973, 1975, 1984; Tough, 1967, 1971, 1982) described in Chapter 2. In each instance, the first three pilot groups of Education 406 contain examples where the guidelines established in the literature were operationalized (e.g., the feedback and coaching style of

McLeod, the emphasis on understanding promoted in the Group 2 seminars and in the teacher talk approach used in Group 4, and the self-directed learning contracts employed in Group 3). As noted earlier, however, the conditions established by Education 406 do not guarantee the operationalization of exemplary and effective practices. On the other hand, available evidence from this and other studies indicates that Education 406, even at its worst, maintains its integrity.

Recommendations

The evaluation data suggest ways in which Education 406 could be improved. Some of them are remedial and arise from discovering weak points in the implementation of the program. For example, the In-service Associates in Group 4: Language Arts, although very supportive of the program, clearly identified the need for longer timelines, more information and a clearer role definition. Those perceptions, re-inforced by the other data, highlight the necessity for orientation and training for In-Service Associates. Likewise some student questionnaires indicate areas for improvement, most often specific to the circumstances of the group rather than Education 406 in general. These have been acted on in subsequent implementations of Education 406 and, of course, the program continues to be refined.

The following recommendations, however, attempt to build on the apparent strengths of the Education 406 model. They arise from the data of this study, are consistent with the literature on self-education and selected aspects of in-service education. For the most part, the suggestions confirm the findings of the concurrent studies (Wideen,

Carlman & Strachan, 1986; McLeod, 1985).

1) Don't Panic. It works. Part of the strength of the program is in its simplicity -- four interrelated components with specifically defined functions and an invitation for the participants, be they students, Instructors, In-service Associates or others, to make it their own. The strength of the program is that the learner must take the ultimate responsibility for success (or failure). Tough (1982b) says of the self-directed approach that it "...unleashes a surprising amount of energy, enthusiasm, creativity and diversity" (p. 47). That comment is borne out in all the data from the range of participants in Education 406. On the process of educational implementation, Fullan (1982) warns:

One of the great problems in educational reform is that there is too much well-intentioned "ad hoc-ism" -- the use of single, segmented solutions unconnected or unintegrated with their systematic realities. The result is more participation here, more material production there, more in-service training everywhere -- more, more, more. Well, when it comes to implementation, more is less (p. 66).

2) Provide and encourage support: Support is the most often mentioned aspect of the Education 406 experience. The questionnaire results from all three pilot groups emphasize the importance of support. Although those comments largely focus on the role of In-service Associate, other supporting structures are also documented. Students in Group 4: Language Arts often mention peer support as a significant element and this finding is confirmed in the concurrent studies. Wideen, Carlman and Strachan report that the role of In-service Associate "...is particularly effective"

(p. 189) although students also made use of peers and, in some instances, the principal of the school. To re-emphasize a point made earlier, "...in no situation did [Wideen et al] observe a change where some type of supporting structure was not in evidence" (p. 188). McLeod's study re-inforces the importance of support and demonstrates that the power of support is greatly enhanced when Education 406 students are clustered in the same school.

Fullan (1982) confirms the impact of supporting structures and notes that although teachers say they learn best from other teachers, they seldom interact with one another. Education 406 provides a forum to encourage such interaction and, judging from the informal support groups that emerged in Group 4: Language Arts, teachers eagerly took advantage of the opportunity. Besides the direct support, 21 students in Group 4 also appreciated the indirect support provided by the school district (4Q6). Support is also an important theme in the literature on self-education and shows up in the informal learning of adults (Tough, 1971) and in the structured assistance provided for teachers in designing and directing their own professional development (Gibbons, Norman & Phillips, 1980; Gibbons & Norman, 1982, in-press; Hopkins & Norman, 1983). The centrality of support in teacher education is aptly summarized by Stenhouse (1984).

Good teachers are necessarily autonomous in professional judgement. They do not need to be told what to do. They are not professionally the dependents of researchers or superintendents, of innovators or supervisors. This does not mean that they do not welcome access to ideas created by other people at other places or at other times. Nor do they reject advice, consultancy or support. But they do know that ideas

and people are not of much real use until they are digested to the point where they are subject to the teacher's own judgement. In short, it is the task of all educationalists outside the classroom to serve the teachers; for only teachers are in a position to create good teaching (p. 69)

3) Arrange students in relatively small groups. In the instances where significant change was documented, small groups were used. Group 2: Implementation was composed of seven students, five of whom were involved in the problem-focussed coursework study. The sub-group of "Thinking" students was a group of five and McLeod, citing Sparks, notes the importance of keeping support groups small -- eight or fewer. This does not, of course, mean that change did not take place in larger groups, just that evidence is available only where small group formats were used. Students in Group 3: Special Needs (n=7) and in another informal sub-group in Group 4: Language Arts, seven Kindergarten teachers with the same In-service Associates, seemed to feel a sense of affiliation as witnessed by their responses to the question as to whether the role of In-Service Associate was necessary to the success of Education 406. Students in smaller units unanimously indicated that they strongly agreed with that proposition whereas responses from students working with other In-service Associates were much more erratic. Of course, other factors could account for the differences in responses (a coincidental level of supervisory competence of In-service Associates, for example). Nonetheless, the data and common sense dictates that attention be given to structuring smaller groups even if the overall class size is relatively large.

The size of the group and the previous emphasis on support combine in the further recommendation that, where possible, Education 406 be clustered in schools. McLeod's study, and the later experience of other Education 406 groups, confirm the utility of cadres of teachers working on projects in the same school, especially when the principal is involved.

4) Promote reflection. Throughout this study of Education 406, the notion of reflecting on teaching has recurred. In the planning phases, for example, the Development Team often referred to the necessity for teachers to reflect on their actions. Background literature and programs in self-education also emphasize the importance of reflection as a parallel activity to action (Gibbons & Norman, 1983; Barnard, 1982). Changes in behavior are often seen in tandem with changes in the meaning system of individuals (Flanders, 1980; Frankl, 1963; Fullan, 1982). Several of the elements and techniques in the Education 406 pilot groups were aimed at providing a medium for teachers to reflect on and understand their day-to-day actions: seminars; self-designed contracts; explications of the change process; teacher talk; formal and informal support groups; journals; the clinical supervision model; classroom research strategies; to name a few.

Although this study was not designed to probe this aspect of Education 406, the soft data tends to re-affirm the advantages of some form of reflection. What form is most effective is open to speculation. A small number of students in Group 4: Language Arts indicated that a journal was an effective means to monitor their individual projects, although the subjects in the McLeod study found journals to be relatively ineffective.

The role of journals in promoting reflection was not successful from the participants point of view. This could be attributed to the reflective processes already in place through the coding and analysis of lessons. The school-based support group may also have served a reflective function for the teachers. The busy daily schedule of the classroom teacher seems to contribute to a resistance to written tasks. The teachers saw journal writing in this light (p. 100).

Whatever the medium, reflection-in-action is an important element of implementation and change. Wideen, Carlman, and Strachan (1986), although unclear on the mechanisms of effective reflection, found that "...teachers who reflected realistically upon their teaching and learned from that reflection appeared to have a great advantage" (p. 191) in introducing change into their classroom practice.

5) Explain and explore the assumptions behind Education 406.

Education 406 is built on a set of assumptions that may not be immediately apparent to the students and other players. Participants need to understand the paradigm so as to increase their ability to construct a personal framework. Wideen, Carlman and Strachan emphasize that students be initiated into the process(es) of change, both as seen in the literature and as personally experienced by the student. Knowles (1975) and other self-directed learning advocates (Tough, 1971; Hopkins & Norman, 1982) suggest that Instructors articulate the assumptions behind the program design. Stenhouse makes an eloquent plea that teaching and learning is ultimately about understanding, which brings us full circle...

...It is the teachers who, in the end, will change the world of school by understanding it.

APPENDIX

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FACULTY OF EDUCATION

General Information

EDUCATION 406-5

PROFESSIONAL IN-SERVICE PRACTICUM

Calendar Description: [EDUC 406-5]... "for practising teachers who wish to implement new curriculum or instructional techniques in their own classroom, a supervised practicum is offered in conjunction with other university coursework."
Grading : Pass/Withdraw.

EDUC 406-5 provides a structure for teachers to play an active role in defining the content of their studies using their own classrooms as the setting for professional development. EDUC 406-5 includes the following components: classroom work; seminars; and instruction in the theory and practice of implementation.

i) Classroom work : This component recognizes that feedback, coaching, consultation and other aspects of on-site supervision are important features of successful implementation. EDUC 406-5 includes visits by a trained supervisor for observation and support. (approx.30 hours)

ii) Seminars : This component provides a forum for teachers to learn from one another. The seminar is scheduled on a regular basis to monitor progress, discuss common concerns and solve problems. (10-20 hours)

iii) Theory and practice of implementation : This component allows teachers to systematically explore school-based implementation and planned change through scheduled activities like guest speakers, demonstrations and attendance at related events. (10-20 hours)

Related coursework : EDUC 406-5 is usually taken in partnership with some other educational study. It emphasizes the process of implementation and encourages teachers to identify relevant content unique to their needs. A fourth component is thus implied; systematic educational study like recent or concurrent university coursework.

SIMON FRASER UNIVERSITY

FACULTY OF EDUCATION

General Information

EDUCATION 407-5**Field Based In-Service: Theory and Practice of Implementation**

Calendar Description: (EDUC 407-5)....."for practicing teachers to implement new curriculum or instructional techniques in their own classroom."

Grading: Pass/Withdraw

EDUC 407-5 provides a structure for teachers to use their own classrooms as the setting for systematically implementing new curriculum or instructional techniques. The course includes the following components: instruction in the theory and practice of implementation; classroom work; and seminars.

a) Theory and Practice of Implementation: This component allows teachers to systematically study theories, issues and practices in school based implementation and planned change. (10 - 20 hours)

b) Classroom Work: This component recognizes that feedback, coaching, consultation and other aspects of on-site supervision are important features of successful implementation. EDUC 407-5 includes visits by a trained supervisor for observation, feedback and coaching. (approximately 30 hours)

c) Seminars: This component provides a forum for teachers to learn from one another. The seminar is scheduled on a regular basis to monitor progress, discuss concerns and solve implementation problems. (10 - 20 hours)

Related Coursework: EDUC 407-5 emphasizes the process of implementation and encourages teachers to identify relevant content unique to their professional needs. A fourth component, usually recent or concurrent education coursework, provides the academic and professional background on which to base the implementation projects.

Note: This course is normally scheduled during the Spring Semester (January - April). The content for implementation will vary depending on available faculty personnel.

PROGRAM EVALUATION

The content and dynamics of Education 406 are largely determined through the development and implementation of individual, classroom-based projects. In order to evaluate and improve the Educ 406 program, we need your feedback. This questionnaire addresses the components of Educ 406 and your thoughts on the overall impact of the program. Your responses are for the purpose of program improvement and will not be used for instructor evaluation.

Thanks for your cooperation.

Education 406 Section: 406 #2 (Olliver)
 406 #3 (Hearn)
 406 #4 (Zola)

Name: _____ Telephone: _____

Address: _____

_____ Postal Code: _____

Current Teaching Assignment/Grade Level: _____

Number of Years Teaching Experience: _____

Teacher Training Institution(s): _____

Post-Secondary Educational Background Years: _____ Degree(s): _____

When did you last register in a credit course? _____

INDIVIDUAL PROJECT (Project Component):

Q1 Did your project mainly involve:
 an instructional focus a curriculum focus both neither

Q2 Would you have carried out this project if you had not registered
 in Educ 406? Yes No Not Sure
 If 'yes', did Educ 406 make a difference to the way you implemented
 the project? Yes No Not Sure

Comment: _____

Q3 Please indicate your level of agreement with the following statements.
 5=STRONGLY AGREE 4=AGREE 3=NEUTRAL 2=DISAGREE 1=STRONGLY DISAGREE

Your Educ 406 project had a significant impact on:

- | | | | | | |
|----------------------------|---|---|---|---|---|
| a) your classroom teaching | 5 | 4 | 3 | 2 | 1 |
| b) your school | 5 | 4 | 3 | 2 | 1 |

Comment: _____

Q4 Please comment further on the project component of Educ 406
 (e.g., how might the project component of Educ 406 be improved?):

GROUP SESSIONS (Instruction and Seminar Component):

Q5 How many group sessions did you attend? _____

Q6 Did the group sessions mainly focus on: discussion and problem-solving
 theory and practice of implementation both neither

Comment: _____

Q7 Please indicate your level of agreement with the following statements.
 5=STRONGLY AGREE 4=AGREE 3=NEUTRAL 2=DISAGREE 1=STRONGLY DISAGREE

The group sessions were effective in helping you:

- | | | | | | |
|--|---|---|---|---|---|
| a) identify and define your project proposal | 5 | 4 | 3 | 2 | 1 |
| b) implement your project and solve problems | 5 | 4 | 3 | 2 | 1 |
| c) monitor and evaluate your progress | 5 | 4 | 3 | 2 | 1 |

Comment: _____

Q8 Please comment further on the instruction/seminar component of Educ 406
 (e.g., how might this component of Educ 406 be improved?):

IN-SERVICE ASSOCIATE (Classroom Support Component):

Q9 How many times did your In-Service Associate visit your classroom? _____

Q10 How many hours did the In-Service spend in your classroom? _____

Q11 Was the number of visits and amount of time spent adequate given your specific project? Yes No

Comment: _____

Q12 Please indicate your level of agreement with the following statements.
 5=STRONGLY AGREE 4=AGREE 3=NEUTRAL 2=DISAGREE 1=STRONGLY DISAGREE

Your In-Service Associate was effective in helping you to:

- | | | | | | |
|-------------------------------------|---|---|---|---|---|
| a) identify and define your project | 5 | 4 | 3 | 2 | 1 |
| b) establish a baseline | 5 | 4 | 3 | 2 | 1 |
| c) implement your project | 5 | 4 | 3 | 2 | 1 |

Comment: _____

Q13 Your In-Service Associate provided you with valuable feedback and helped you to monitor your progress.

5 4 3 2 1

Comment: _____

Q14 The role of In-Service Associate is necessary to the success of Educ 406.

5 4 3 2 1

Comment: _____

Q15 Please comment further on the classroom support component of Educ 406 (e.g., how might this component of Educ 406 be improved?):

EDUCATION 406

We are interested in your feelings about the quality of Education 406; please comment on the following aspects of your experience. If additional space is required, use the reverse side of this page.

Q16 What do you expect university coursework to do for you?

Q17 How would you compare the classroom-based emphasis of Educ 406 to other university credit courses you have taken?

Q18 What, for you, was the most valuable aspect of Educ 406?

Q19 What, for you, was the least valuable aspect of Educ 406?

Q20 Would you recommend Educ 406 to your colleagues? Yes No
How would you describe Educ 406 to a colleague interested in taking it?

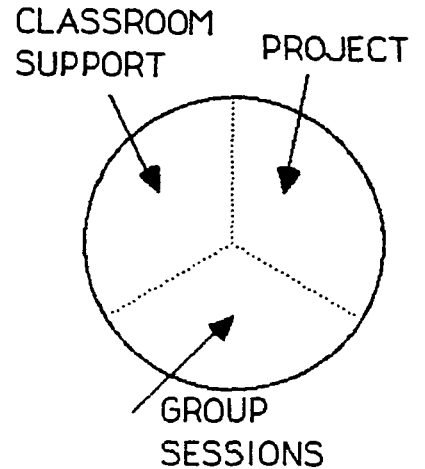
Q21 Is 5 credits appropriate for Educ 406? Yes No Not sure

Q22 Has Educ 406 prompted any changes for you which you feel will continue in the future? Yes No Not sure Please explain.

EDUCATION 406

Q23 Please re-draw the sections of the circle to indicate your view of the relative significance of the components of Educ 406.

Comment: _____



Q24 Please rate Educ 406 as an overall professional development experience.

Excellent	Good	Average	Fair	Poor
5	4	3	2	1

Q25 Please comment further on any aspect of Education 406 which you consider important.

F1 What form(s) of follow-up to Educ 406 would be valuable to you?

F2 Would you be interested in participating in a classroom-based action and research network in association with SFU? Yes No Not sure

EDUCATION 406 - GROUP 2

INSTRUCTOR: Steve Olliver

This section applies only to Group 2 of Education 406. As with the previous questions, responses are solely for the purpose of program improvement.

2Q1 How valuable were the five Educ 361 sessions in helping you formulate and implement your project?

2Q2 How appropriate were the timing and sequencing of the topics in the Educ 361 sessions?

2Q3 How valuable were the Educ 406 seminar sessions in helping you implement your project?

2Q4 In your opinion, should there have been more or fewer of these seminar sessions? More Fewer Same

2Q5 Do you think that Educ 361 should be a:
a) a prerequisite for Educ 406?
b) a required concurrent course for Educ 406?
c) neither

2Q6 Please comment on the effectiveness of the Educ 361/406 teaching team.

EDUCATION 406 - GROUP 4 (SURREY)

INSTRUCTOR: Mequido Zola

This section applies to Group 4 of Educ 406 (Surrey). As with the previous questions, responses are solely for the purpose of program improvement.

4Q1 How did you first hear about the Surrey section of Educ 406?

4Q2 Did you attend the information meeting? Yes No
If "yes", was it useful to you?

4Q3 Was locating the group meetings in the school district, rather than on the SFU campus, important to you? Yes No Please explain.

4Q4 How many sessions of Educ 472 did you attend? _____

4Q5 Please comment on the process used to "match up" Educ 406 participants and In-Service Associates, and the final results.

4Q6 As you know, Educ 406 is a collaborative project between SFU and Surrey School District. Is the School District involvement significant to you in any way? Yes No Not sure Please explain.

4Q7 In what ways could the School District further support teachers engaged in Educ 406 or similar coursework?

4Q8 Further comments and suggestions.

INTERVIEW QUESTIONS - EDUCATION 406

SPRING 1985

- (1) Briefly describe your project.
- (2) Did you make any changes in your classroom or teaching as a result of Educ. 406?
- (3) If so, would you describe these changes?
- (4) Why did these changes seem to be desirable?
- (5) What impact did these changes have on your pupils?
How did they respond?
- (6) Which aspects of these changes do you feel are worthwhile maintaining?
Why?
- (7) What support would you need to maintain the changes you have made?
- (8) Would you have implemented this project if you had not been enrolled in Educ. 406?
- (9) If so, did Educ. 406 make any difference to the way you went about the project?
- (10) Has Educ. 406 affected your attitudes about professional development?
If so, explain.

Identifying a problem

1. VISION - What do I see as an ideal concerning some aspect of my teaching situation?
2. GOAL - What change do I see in my instructional behaviour which could help me move closer to this ideal? What will I try to achieve?
3. IMPACT - How will reaching my goal be of educational importance to me, to my school, and to my pupils?
4. BASELINE - Where am I now? How can this be measured?

Plan of action

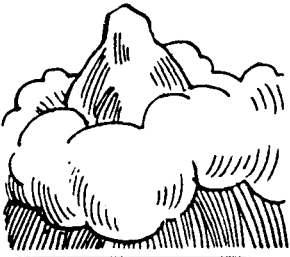
1. PREPARATION - What will I have to know or have in order to get started? What will I have to read? What resources, materials, or people can help?
2. OUTLINE - What steps will I take to reach my goal?
3. TIMELINE - When will I take these steps?

Reflection-in-action

1. SELF-MONITORING - How will I measure and how will I record what I do and what the effects are?
2. REPORTING - How will I inform my in-service associate, on a weekly basis, about my progress?
3. SUPERVISION - How often and when should my in-service associate observe my class?
4. ANTICIPATION - What problems might I encounter and how will I overcome them?

Evaluation

1. FORMATIVE EVALUATION - How will I conduct ongoing evaluation that may mean a change in direction or focus?
2. SUMMATIVE EVALUATION - How will I know how successful my project has been?
3. DEMONSTRATION - How will I prove, to myself and to others, what I have done?



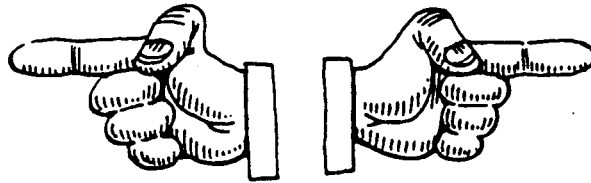
SELF-DIRECTED LEARNING CONTRACT

- 1 Create a VISION
- 2 Identify a GOAL
- 3 Select a CHALLENGE
- 4 Assess your learning style
- 5 Design a PLAN and TIMETABLE
- 6 ANTICIPATE PROBLEMS
- 7 Determine your BASELINE
- 8 Develop EVALUATION criteria
- 9 DEMONSTRATE your results
- 10 CELEBRATE your achievement

Name:

SELF-DIRECTED LEARNING CONTRACT

APPENDIX H



VISION □ The picture in your mind of yourself having achieved excellence in the area of your choice.

GOAL □ The specific achievement you want to make — an achievement that moves you closer to your vision.

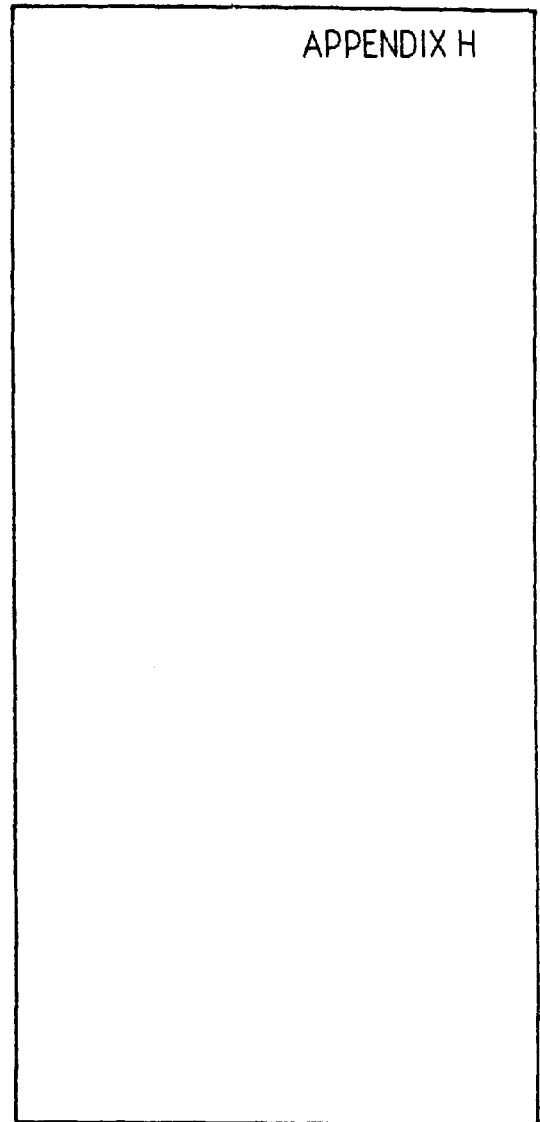
CHALLENGE □ The most rigorous test of your new skills that you think you can manage.

PLAN: An outline of methods, activities, strategies, people and resources you can use to meet your challenge.

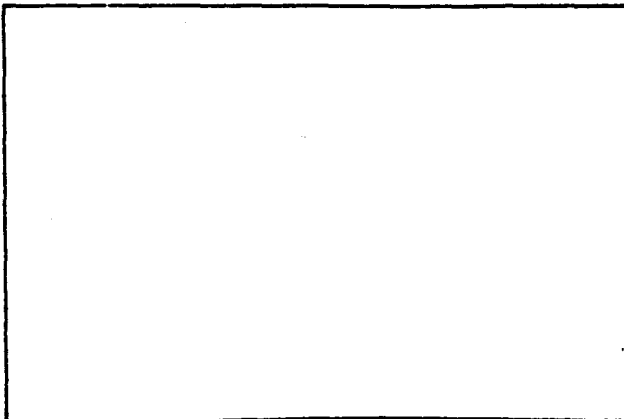
TIMETABLE: The specific dates or times when you will accomplish the steps in your plan.



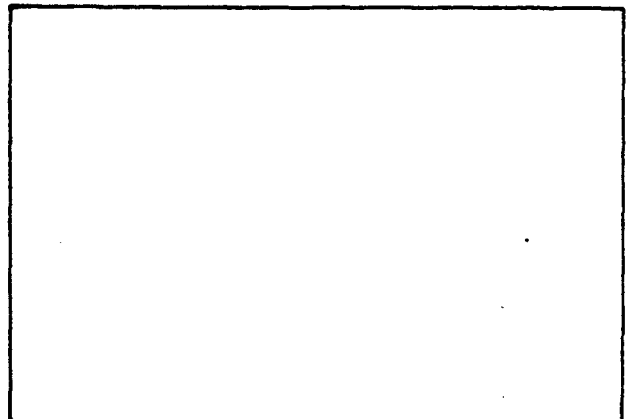
APPENDIX H



PROBLEMS:
A list of things that can go wrong — obstacles, resistant people, personal shortcomings and so on.



PREVENTIONS:
Strategies you can employ to avoid or resolve these anticipated difficulties.



BASELINE: An indication of your present knowledge/skill in the goal area of activity.

EVALUATION

Minimum: The smallest improvement you will accept.

Satisfactory: An acceptable level of improvement/performance.

Excellent: Expertness in your performance.

DEMONSTRATION: Proof (for yourself and others) that you successfully met your challenge and achieved your goal.

CELEBRATION: The most appropriate and pleasurable way of celebrating your achievement. Self-reward.

4. (a) I have committed myself to the following (micro-teaching) practice tasks, to sharpen my skills in this area:

(b) I will undertake the following field trials in my own classroom:

(c) I will undertake the videotaping of the following field trials, for clinical analysis in the seminar:

5. I see the following types of service, by resource personnel, helpful to me in my in-classroom work: (This may include hands-on assistance, demonstration lessons, help with clinical analysis of field trials or practice tasks, consultation, etc.)

6. The criteria and procedures by which I will assess the fulfillment of my growth goals include the following:

Signature

EDUCATION 408 - PROJECT REPORT

FACULTY OF EDUCATION
SPRING 1985

APPENDIX J

NAME: _____ STUDENT NUMBER: _____

INSTRUCTOR: _____ SEMESTER: _____

PROJECT SUMMARY

[include rationale, description and outcomes]

SIGNATURE: _____ INSTRUCTOR SIGNATURE: _____

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