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by

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A THESIS SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF ARTS (EDUCATION)
in the Faculty
of
Education

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June 28th, 1979

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ABSTRACT

The practicum is an important and integral component of most preservice teacher preparation programs. Studies of student-teachers' teaching anxiety and self-concepts during the practicum have attempted to assess the worth of the practicum and strengthen its theoretical and practical foundations. Studies before 1969 claimed that the practicum was associated with lowered professional self-concept and self-concept and undesirably high levels of teaching anxiety. Since 1969, studies have reversed these findings for programs which prepare student-teachers adequately, offer them a gradual introduction to the classroom, and provide skilled support throughout the experience.

In all such research little attention has been focussed on the duration of the practicum or on patterns of change that may occur in student-teachers' teaching anxiety, professional self-concept and self-concept during the practicum. The present study examined the magnitude and direction of change in these variables as reported by student-teachers during the Spring 1979 ED. 405 extended practicum at Simon Fraser University.

It was hypothesized that significant decreases in teaching anxiety would occur after 9 and 12 weeks, that actual professional self-concept and actual self-concept would increase significantly after 12 weeks, that ideal professional self-concept and ideal self-concept would be stable, and that the professional self-concepts and self-concepts discrepancy scores would decrease significantly after 12 weeks.

The Parsons Teaching Anxiety Scale measured teaching anxiety and the Elsworth-Coulter Semantic Differential provided scores on seven dimensions and the total scale of each of four components of self-concept. Respondents also provided open-ended descriptions of dominant incidents that had

occurred during the practicum.

Pretests were administered during the first 2 days of the practicum. The 195 respondents were assigned randomly to one of four posttest groups, established as homogeneous by analysis of variance, for testing at the end of week 3, 6, 9 and 12 respectively. Posttest groups' results were tested for significant interaction and, where appropriate, subjected to analyses of covariance, Tukey HSD Tests and matched group t Tests. Results were considered to be significant at the .05 level of confidence.

Significant desirable changes included declines in teaching anxiety (pretest to weeks 3, 9 and 12; week 6 to 9; week 6 to 12), rises in actual professional self-concept "orderliness" (pretest to week 12; week 3 to 12), declines in professional discrepancy "creativity" (pretest to week 12; week 9 to 12) and "orderliness" (pretest to week 12; week 3 to 12), and declines in self-discrepancy "orderliness" (pretest to week 12; week 3 to 12). Clear desirable trends were established in the two actual self-concept scales by week 12, and ideal self-concepts remained constant. In contrast, undesirable increases in professional discrepancy "creativity" (pretest to week 9) and self discrepancy "orderliness" (pretest to week 3) were revealed.

The value of the present study's design was substantiated by the detection of pretest-posttest and intermediate changes in the practicum, the latter changes indicative of potentially serious mid-practicum stress, and the former changes endorsing the beneficial nature of the extended practicum.

The inner and outer pressures are so dominant that at any one vulnerable moment (and they are all vulnerable moments) you shall succumb to it all. Your worst fears are magnified by the innocence of the pupils, your resources are depleted by recess, your strengths are depleted by lunchtime, and by three o'clock you are dumbfounded. Somehow you manage to gather up enough energy to scold Billy for calling a girl with new braces METAL MOUTH. You're a teacher.

No dinner and you are searching your soul for a remnant of an idea (hopefully for a miracle of an idea) which will stimulate your pupils to exhaustion! But to no avail. You cry, you scream, you sweat and you strain until the morning hours; only then do you have the priceless lesson plans.

You've made it through one more day.

(SFU student-teacher, 1979)

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CHAPTER 1

Introduction, Definitions, and Terminology

Teacher training has long been recognised as an area attracting spirited political conflict and considerable controversy around the world (Cremin, 1965). From very humble and insignificant beginnings teacher training has developed into a massive public and private industry, consuming huge resources, drawing to it extensive government involvement and attracting the attention of myriads of individuals and pressure groups.

During the last two decades international, national and local organisations have given greatly increased attention to various aspects of preservice teacher training. In many countries training institutions have been amalgamated or expanded to meet the demands for better qualified, more liberally educated teachers. Programs have been restructured and substantially increased in content and length. In 1974 an international symposium on teacher training was hosted by the Organisation for Economic Cooperation and Development. From what appeared to be a confused and diverse collection of training programs emerged a number of common factors that suggested a substantial degree of international concensus (Organisation for Economic Cooperation and Development, 1974). The experts agreed that "training itself could be seen as a causal factor of change" (Eggleston, 1974, p. 11), that student-teachers must be given opportunities to undertake a personal capital restructuring, that rapid change was breaking down the protective barriers that had long surrounded the teacher and, finally, that professional training demanded the close involvement of practicing teachers (Eggleston, 1974, pp. 13-14).

The practicum in teacher training programs has received close attention. It has been claimed that "the one indisputably essential element in professional education is practice teaching" (Conant, 1963, p. 142). The practicum's importance has been stressed by teacher educators and teachers alike. An international survey of teachers revealed that over three-quarters of those responding prized the practicum and saw it as the critical component in teacher training (Hilliard, 1968). But the practicum is not without its critics. The "James Report" stressed both the importance and the inadequacy of the practicum (Teacher Education and Training, 1972), a view shared by numerous writers. Oestreich (1974) considered the practicum to be the most significant component in training programs, whilst Horton and Horton (1974) and Peck and Tucker (1973) decried the lack of research designed to discover and structure appropriate practices.

Substantial research funding is now being directed at the practicum in an attempt to place it on sound theoretical and practical foundations. An important problem appears to relate to the role clarification, preparation and training of participants in the practicum. It is generally accepted that the student-teacher, the cooperating teacher and the university supervisor form the "teaching triad" (Yee, 1968), a critical grouping of people whose relationships can promote or destroy the professional training of the student-teacher. Harmonious and positive relationships are seen to be essential and are thought to influence career decisions made by student-teachers (Campbell and Williamson, 1973; Overbeck and Quisenberry, 1976) as they move from "super-vision to self-vision assuming increased responsibility for further personal/professional growth" (Warner, Houston and Cooper, 1977, p. 16).

Only minimal research has been directed at the length of practica. The general acceptance of the practicum as a vital component in teacher training has led to substantially longer periods of initial and subsequent practica (Channon, 1971). Unfortunately, some increases have been justified as "obviously valuable" (Morrison and McIntyre, 1973, p. 69) and little attempt has been made to demonstrate specific advantages associated with particular time periods. Rather, decisions on the length of practica have been influenced by institutional calendars and time-tables. As emphasised by Oestreich (1974): "If the length of time is indeed a valid consideration, it ought to be based on something other than an arbitrary hunch or upon a convenient way of scheduling college students" (p. 336).

The present study was designed to provide evidence about the appropriateness of different lengths of practica by examining changes in selected concepts and identifying pressure points during a practicum. Elsworth and Coulter (1977) saw great merit in conceptualizing teacher preparation as a form of resocialization. This approach enabled researchers to study changes "in reference groups . . . values, attitudes and level of commitment to teaching . . . level of professional aspirations, self-esteem and the acquisition of new knowledge and skills" (p. 1). Evaluation of a program then became a matter of seeking information on the magnitude and direction of change on one, or a combination of these characteristics.

A literature search indicates that an examination of patterns of change in student-teachers' professional self-concept, personal self-concept and teaching anxieties during a practicum is an important exercise. Elsworth and Coulter (1977) believed that the measurement of the discrepancy

between the ideal and actual professional self-concept provided "an index of professional adjustment . . .. To the extent that student-teachers saw themselves as competent, effective and as realizing their aspirations programs might be judged effective" (Elsworth and Coulter, 1977, p. 54).

A substantial number of studies has been undertaken in the related areas of self-concept and teaching anxiety. A variety of anxieties has been identified, anxieties that may elicit relevant or irrelevant responses to the teaching task. Considerable evidence has been reported (Coates and Thoreson, 1976; Parsons, 1973a and 1973b) that suggests high-anxiety could impair performance. Gaudry and Spielberger (1971) concluded that "high anxious persons tend to be self-disparaging and lacking in self-confidence" (p. 78) and that universities should attempt to identify such people in order to provide appropriate support and counselling.

Further substantial links between these concepts have been established by other researchers including Lantz (1964), Garvey (1970), Gaudry and Spielberger (1971), Gregory (1976), and Walberg (1967a and 1967b). Wright and Tuska (1968) reported "anxious and guilty" (p. 267) feelings in student-teachers, and associated such feelings with teaching behavior and images of self. Self-concept, "a complex and dynamic system of beliefs which an individual holds true about . . . self, each belief with a corresponding value" (Purkey, 1970, p. 7) may be both global (personal) and situationally specific. Student-teachers, therefore, hold beliefs about themselves that relate to their actual performance as a teacher or their desired (ideal, or aspirational) performance (Elsworth and Coulter, 1977).

Measurements of student-teachers' teaching anxiety, professional self-concept and self-concept have been made by many researchers, but with

conflicting results. Studies by Gaudry and Spielberger (1971), Purpel (1967), Parsons (1971) and Sinclair (1971) have portrayed the practicum as a continuously anxiety-ridden experience, whereas recent studies (Gregory, 1976; Poole and Gaudry, 1974) have reported declines in teaching anxiety during a practica. Similarly conflicting results have been reported from self-concept studies. By 1969 it seemed that the practicum was associated inevitably with declines in professional self-perception (Lantz, 1964; Nagle, 1959; Newsome, Gentry, and Stephens, 1965; Walberg, 1967a, 1967b, and 1968; Walberg, Metzner, Todd, and Henry, 1968; Wright and Tuska, 1968) and self-perception (Walberg, 1968; Wright and Tuska, 1968). However, more recent studies by Coulter (1976), Dumas (1969), Gregory (1976), Smith and Adams (1972), and Soares and Soares (1972) have reversed this trend and have suggested that program factors make a significant contribution. Practica that incorporate a gradual introduction to teaching, systematic preparation of teaching triad members, extended time in classrooms and positive student-teacher support have been associated, to varying degrees, with stable or improved professional self-concept and self-concept, and reduced teaching anxiety.

The present study was designed to measure changes in these concepts as a practicum progressed. The selected practicum was the final practicum in the Simon Fraser University Professional Development Program, a one-year intensive teacher preparation program. The program is divided into three thirteen-week semesters. In the first semester teams of student-teachers are placed in classrooms for the initial six-week practicum (ED. 401) to be followed by a program of educational seminars and workshops (ED. 402). Extensive support is provided by the university supervisor (Faculty

Associate) and the cooperating teacher (School Associate). The second and third semesters, which may be taken in reverse order, comprise a 13-week practicum (ED. 405, the independent variable in this study), and a campus-based academic program (ED. 404). Close support continues to be provided during the extensive practicum.

The Simon Fraser program contains a number of features not found in more traditional programs (Channon, 1971; Gregory, 1976; Tittle, 1974) and which may guard against decriments in professional self-concept and self-concept, or damaging increases in teaching anxiety. The program's practica are unusually long and have been designed to achieve a gradual introduction of the student-teacher to the classroom. Both the cooperating teacher and the university supervisor have been selected and prepared for their roles. The supervisors are experienced classroom teachers on leave from their schools for one or two years, thereby eliminating many of the problems that beset programs where the permanent faculty have to act as supervisors.

Procedures

Teaching anxiety was measured by the Parsons Teaching Anxiety Scale (Parsons, 1973a; 1973b). Professional self-concept (actual and ideal) and self-concept (actual and ideal) were measured by the Elsworth-Coulter semantic differential, a scale specifically designed to be used with student-teachers undergoing a practicum experience. The four scales, identical in all respects except the titles ("Myself as a teacher; The teacher I would like to be; Myself; Myself as I would like to be" - Elsworth and Coulter, 1977), contain 32 adjectival pairs selected to describe teaching behaviors. Each scale provides scores on seven dimensions (creativity, orderliness, warmth-supportiveness, satisfaction, clarity,

energy-enthusiasm, and non-conformity) and a scale total.

The subjects were volunteers from the spring 1979 ED. 405 course who agreed to participate in the study on receipt of the pretest materials. Approximately 60% of the population agreed to be involved, which gave a usable pretest sample of 211. All subjects were randomly assigned to one of four groups for posttesting. The posttest was administered after the completion of three weeks (group 1), six weeks (group 2), nine weeks (group 3) and 12 weeks (group 4) of the practicum. Analyses of the data were undertaken using analyses of variance, ANCOVA , Tukey HSD and t tests.

A number of predictions were advanced:

1. Teaching anxiety should decline by the end of the practicum. In light of the apparent supportive program design and the timing of the interim evaluation (week 7), this decline should be evident by week nine.

2. Professional self-concept actual should increase by the end of the practicum. This increase would reflect the supportive nature of the program, in particular the opportunity for student-teachers to be introduced gradually to the role and responsibilities of a full-time classroom teacher. It should also reflect general success of the teaching venture and the completion of the practicum.

3. Professional self-concept ideal should not change. Substantial literature indicated that this concept would be resistant to change.

4. Professional self-concept discrepancy scores should not change. The predicted rise in the professional self-concept actual scores were not expected to be sufficiently substantial to produce a significant rise in discrepancy scores.

5. Self-concept actual should increase by the end of the practicum. See 2., above.

6. Self-concept ideal is also thought to be resistant to change and should not alter during the practicum.

7. Self-concept discrepancy scores should not change. See 4., above.

Changes would be considered significant at the $p < .05$ level of confidence (two-tailed tests, except where noted).

This chapter has provided a broad introduction to teacher training and has presented a succinct outline of the present study. Chapter 2 reviews a range of issues pertaining to the practicum, describes the Simon Fraser University Professional Development Program, and surveys studies that have investigated teaching anxiety, professional self-concept and self-concept in the practicum, and the length of the practicum. A full statement of the study's hypotheses and supporting rational is presented in chapter 3. Details of the subjects, variables and procedures appear in Chapter 4, with the results from the study forming Chapter 5. A detailed discussion of the results appears in Chapter 6. This chapter also considers some of the limitations of the study and recommends areas for further research. The instruments used in the study are reproduced in the appendices, with supplementary results and other supporting material.

Definitions and Terminology

Important concepts in this study are defined below. Terms used in this study and elsewhere are also clarified, and alternative terms are identified. The list is not exhaustive.

Self-concept

The study accepts the definition proposed by Purkey (1970) that self-concept is "a complex and dynamic system of beliefs which an individual holds true about . . . self, each belief with a corresponding value" (p. 7). Alternative terms include self-perception, self-attitude, self-esteem, self-image, and self-evaluation. It is believed that self-concept may be global and situationally specific. Persons, therefore, may perceive themselves in personal and professional roles and evaluate themselves in these contexts (Elsworth and Coulter, 1977).

Professional Self-concept Actual

A measure of actual professional self-concept is provided by an individual's total score on the Elsworth-Coulter semantic differential for the concept "Myself as a teacher" (Elsworth and Coulter, 1977, pp. 66-67). The scale identifies seven dimensions of actual professional self-concept (creativity, orderliness, warmth-supportiveness, satisfaction, clarity, energy-enthusiasm and non-conformity) and provides individual scores for each dimension.

Professional Self-concept Ideal

A measure of ideal professional self-concept (also known as aspirational professional self-concept) is provided by an individual's total score on the Elsworth-Coulter semantic differential for the concept "The teacher I would like to be" (Elsworth and Coulter, 1977, pp. 66 and 68).

An individual's score on each of the seven dimensions of the concept, as identified above, may also be obtained.

Self-concept Actual

A measure of personal or global self-concept is provided by an individual's total score on the Elsworth-Coulter semantic differential for the concept "Myself" (Elsworth and Coulter, 1977, p. 53). An individual's score on each of the seven dimensions of the concept, as identified above, may also be obtained.

Self-concept Ideal

A measure of personal or global ideal self-concept (also known as aspirational self-concept) is provided by an individual's total score on the Elsworth-Coulter semantic differential for the concept "Myself as I would like to be" (Elsworth and Coulter, 1977, p. 53). An individual's score on each of the seven dimensions of the concept as identified above, may also be obtained.

Professional Self-concept Discrepancy Score

An individual's discrepancy score on the professional self-concepts is the difference between the level of professional aspiration ("The teacher I would like to be") and perceived attainment ("Myself as a teacher") for the total scale and the seven dimensions. Each score "may be interpreted as an index of the student-teacher's adjustment to the professional role" (Elsworth and Coulter, 1977, p. 3).

Self-concept Discrepancy Score

An individual's discrepancy score on self-concepts is the difference between the level of global aspiration ("Myself as I would like to be") and perceived attainment ("Myself") for the total scale and the seven dimensions.

Each score may be interpreted as an index of personal adjustment (Elsworth and Coulter, 1977, p. 54).

Practicum

A period of observation and teaching undertaken by student-teachers in a school classroom. One or more periods may be included in programs of teacher training. Student-teachers generally are expected to accept greater levels of responsibility as their experience increases. The experience is also known as practice teaching or field experiences.

Simon Fraser University Professional Development Program

A one-year, three-semester program of intensive teacher training requiring a prerequisite of at least two years of approved post-secondary academic experience (elementary program) or a Baccalaureate (secondary program). The course components are:

ED. 401 (half-semester): initial practicum of six weeks;

ED. 402 (half-semester): educational seminars and workshops, held on campus or in interior sites;

ED. 405 (one semester): final practicum;

ED. 404 (one semester): academic program.

Cooperating Teacher

A cooperating teacher is a classroom teacher who accepts varying degrees of responsibility for the preservice teaching experiences of one or more student-teachers appointed to the teacher's classroom. The teacher is also a member of the teaching triad. Alternative or similar titles include, extended faculty, supervising teacher, teacher education clinician, school supervisor, and school associate. The latter term is used in the Simon Fraser University Professional Development Program.

Student Teacher

A university or college student enrolled in a recognised program of concurrent or consecutive teacher training. A member of the teaching triad.

Teaching Triad

A group of three people (cooperating teacher, student-teacher and university supervisor) who are expected to form a close working relationship during the practicum.

University (or college) supervisor

A person who is attached to, or is a faculty member of a university or college, with overall responsibility for the practicum program of student-teachers. The person is also responsible for liaison between the university or college and the schools accepting student-teachers for practica. Alternative titles include tutor, clinical professor, coordinator and faculty associate. The latter title is used by the Simon Fraser University Professional Development Program to describe its supervisors who, generally, are experienced teachers on short-term university contracts.

CHAPTER 2

Review of the Literature

This chapter undertakes a detailed examination of specific studies that directly impinge upon the present study. The practicum is identified as an essential element in teacher training, and a number of key problems are discussed, including the teaching triad membership and operation, and future control of the practicum. Subsequent sections review the Simon Fraser University Professional Development Program, previous studies of teaching anxiety and self-concept of pre-service teacher education students, and the importance of the length of the practicum.

The Practicum - Selected Issues

A meeting of educational experts hosted by the Organisation for Economic Cooperation and Development (OECD) in 1974 reviewed world-wide trends and issues in the training of teachers. From what appeared to be a confused, rapidly changing, and diverse collection of programs and developments, emerged a picture of common underlying principles that suggested a far greater degree of consensus than the experts had at first imagined possible.

Four common factors were identified. Firstly, it was agreed that "training itself could be seen as a causal factor of change" (Eggleston, 1974, p. 11). Experts reported that training institutions did not just respond to changes in the schools and community, but initiated change, clearly accepting a role "as an integral part of the total complex of educational change" (Eggleston, 1974, p. 12). Secondly, the importance of providing the teacher or student-teacher with opportunities to undertake a personal restructuring demanded by developments in curricula and

changes in patterns of responsibility and role emphasised the importance of professional training.

> Initial training became visible as a period in which an initial build-up of relevant professional capital could be undertaken - along with the achievement of appropriate skills of adaptability and flexibility that would enable the teacher to use it to the best advantage in changing situations (Eggleston, 1974, p. 12).

The experts also agreed that teachers were being faced with rapid change that tended to break down the protective mechanisms that had long surrounded the role of teacher. It was necessary, therefore, to introduce training programs that would foster a belief in the professional desirability and willing reception of change. Finally, it was generally accepted that practicing teachers should be closely involved with, and participate in, preservice and inservice training programs. "Indeed, such participation by teachers and by students was seen to be a central feature of new forms of professional training . . . of new and beginning teachers" (Eggleston, 1974, pp. 13-14).

The initial training period provides the student-teacher with the opportunity to undertake academic and professional studies, and to experience a period or periods of professional practice. These components, whether consecutive or concurrent, enable the student-teacher to experience elements of a teacher's role (resocialization), commence the integration of educational practice and theory, demonstrate practical competencies and decide, finally, whether to pursue a teaching career (Corrigan, 1974, p. 104).

It was the firm conclusion of Conant (1963) in his review of teacher education in America that "the one indisputably essential element in professional education is practice teaching" (p. 142). Many writers

have expressed similar sentiments (Krajewski and Cate, 1974; Purpel, 1967; Wingard, 1974). Hilliard (1968) surveyed teachers in five countries and found that 76% of respondents in England, Scotland, Wales, Rhodesia and South Africa prized the practical aspects of their course. This compared dramatically to the low positive responses, ranging from .01% to 6% that the same sample reported when questioned about the value of educational theory (p. 38).

Although the period of student teaching (practicum) has generally been regarded as a critical component in teacher training, many authors have reported associated concern and dissatisfaction. The "James Report" was scathing about aspects of the practicum:

> We have been impressed by the volume of comment stressing at once the importance and inadequacy of teaching practice . . . Many students are vehement in asserting that teaching practice is one of the worst conducted parts of their training (Teacher Education and Training, 1972, paras. 3.8 and 3.7).

Lomax (1971) reported that although some students found much in their teacher training to be irrelevant, "the young teachers approached teaching practice with added enthusiasm" (p. 38).. Morrison and McIntyre (1973) recognised that "school practice is usually justified as being 'obviously valuable'", (p. 69) whilst Oestreich (1974) considered the practicum to be "the most significant step in the sequence of professional courses leading to initial certification" (p. 335).

It can be seen that there was not only agreement about the importance of the practicum, but that problems existed in the practicum that needed to be researched. Peck and Tucker (1973) concluded that before the late 1960's there had been "almost no research to find out how, why or what specific kinds of practice actually do have demonstratively good effects"

(p. 940). Writing in 1974 Horton and Horton remarked:

> Of the many sacred cows of education, student teaching is the most sacrosanct, questioned only by the few heretics found in every college of education. Little research exists that validates the wide acceptance of this nearly universally endorsed aspect of teacher education (p. 6).

It is somewhat reassuring that since those comments were made, substantial research funding in many parts of the world has produced studies on the practicum and on such related aspects as microteaching, classroom interaction, in-service teacher education, processes in teacher education, behaviour modification techniques and self-directed learning. What specifically, then, are some of the concerns of teacher educators? In their model of teaching Dunkin and Biddle (1970) consider the practicum to be a presage variable, an important formative experience that will impinge upon the process and product variables to follow. Yet, to some, the practicum is full of problems, mismanaged, and in the wrong hands (Parry, 1972, p. 51). This hints at what may be seen as one of the key problems, the personnel in the practicum, their selection, training and role.

The Teaching Triad

As has been indicated, the practicum serves a number of purposes. It is a powerful agent of socialization for student teachers, providing them with the opportunity to develop and explore new roles, face the related successes and frustrations, try out individual teaching styles, develop curricula, implement and examine theories presented at university or college - in short, to be introduced to the profession (Purpel, 1967, pp. 21-22). To provide these experiences requires the provision and interaction of human resources, accompanied by serious attempts to coordinate

them in order to eliminate or reduce potential role conflicts, misunderstandings and disagreements that could irreparably damage the student-teacher. The analogy drawn by the Coordinators of the Professional Development Program at Simon Fraser University is an appropriate one.

> (You are) a novice actor preparing for a part in a play. You will be supported by a production staff who will make sure that all of the environmental factors are in place to help you play your role convincingly. You will work with some highly skilled teachers . . . You must have total commitment to your role (Denos, Note 1, p. 4).

The leading actors in this play, the student-teacher, the university or college supervisor and the cooperating teacher form the "student-teaching triad" (Yee, 1968, p. 98) which must "perform, evaluate, act, react and adapt (to) relationships" (Yee, 1968, p. 97) within the classroom setting. In a key article Yee described these relationships in depth, emphasising that the critical relationships were those between the adults in the immediate situation (see Figure 1). Each person had obligations that were

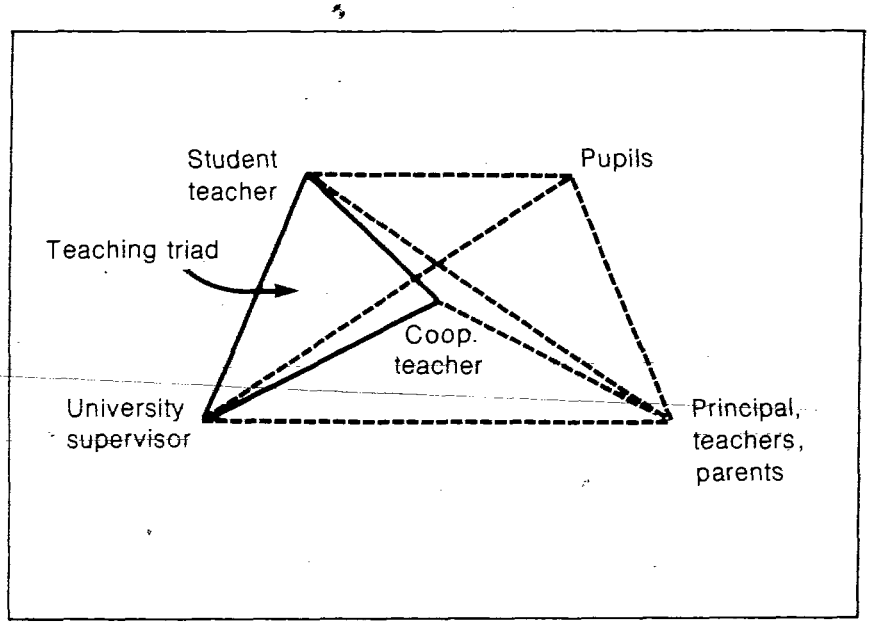


Figure 1. The teaching triad. (Adapted from Yee, 1968, p. 99)

both independent of and interdependent with other members of the triad. Often the triads were forced arrangements, its members being thrown together by circumstances and schedules. It means then, that give and take must occur. Eye (1974) saw these relationships forming a three-way stretch in which all consumers must be carefully identified:

> The student-teacher is not the only consumer involved. The pupils registered in the cooperating school constitute a very important group of consumers. The potential employers of school districts are potential consumers and are interested in the three-way stretch operational outcomes (p. 165).

Each person in the triad must have freedom of communication with the other two. If this did not occur, a situation could develop in which suspicion and mistrust thwarted the purposes of the practicum. Yee highlighted the importance of recognising each relationship within the triad, studying not only the three-way relationship but also the three dyad relationships: student-teacher and cooperating teacher, university supervisor and student-teacher, and cooperating teacher and university supervisor. In his study he attempted to examine the changes in these relationships over a practicum period by measuring the attitudes of each member of the triad toward the other two members. Each triad relationship was made up of three negative or positive dyad relationships, thereby creating clusters of eight different triads. This concept is critical and merits further detailed examination.

Firstly, Yee examined each dyad deciding whether relationships were positive or negative. In the university supervisor (U) - student-teacher (S) relationship four alternatives may be identified.

(i) U has a negative attitude to S, but S is positive to U. The relationship is (- +).

(ii) U and S have mutual negative attitudes. The relationship is (- -).

(iii) U has a positive attitude to S, but S is negative to U. The relationship is (+ -).

(iv) U and S have mutual positive attitudes. The relationship is (+ +).

Of these four alternatives, the first three are potentially negative and the fourth potentially positive, giving two possible dyad forms, (-) or (+). The same analysis applies to the university supervisor - cooperating teacher (U-T) dyad, and the cooperating teacher - student-teacher (T-S) dyads.

Eight possible triad relationships were then identified, each made up of three individual dyadic relationships, positive or negative. This can be shown as:

TABLE 1: Dyad Components of Teaching Triads

	Dyad relationships in the triad		
	(U-S)	(T-S)	(U-T)
Triad Relationships	+	+	+
	+	-	+
	+	-	-
	+	+	-
	-	-	-
	-	-	+
	-	+	+
	-	+	-

A closer examination reveals an important characteristic of triads. In any one of the eight triad relationships exists a multitude of different

dyad relationships, relationships that may result in significantly different, yet identically-labelled triads. Consider the triad (+ - -) in Table 1. This triad portrays the following dyad relationships:

(U-S) University supervisor and student-teacher: (+)

(T-S) Cooperating teacher and student-teacher: (-)

(U-T) University supervisor and cooperating teacher: (-).

Yee appeared to assume that this (+ - -) triad was very much like any other (+ - -). This assumption may be inappropriate as the original definitions of the (+) and (-) dyadic relationships allowed for seven attitude combinations in the (+ - -) triad, namely

(U-S) positive: 1. mutual positive attitudes;

(T-S) negative: 2. teacher negative - student positive,

or 3. teacher positive - student negative,

or 4. mutually negative attitudes;

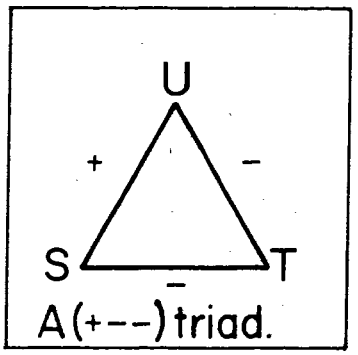
(U-T) negative: 5. university supervisor negative - teacher positive,

or 6. university supervisor positive - teacher negative,

or 7. mutually negative attitudes;

The (+ - -) triad should not be considered as one fixed combination of dyadic relationships, but could be any one of up to nine different combinations (as illustrated in Figure 2), portraying a variety of behaviour patterns, pressures and degrees of cooperation.

Yee employed his triadic concept to examine triads on a pretest-posttest basis, concluding that the triads degenerated over time as relationships tended to become negative. He also claimed that the



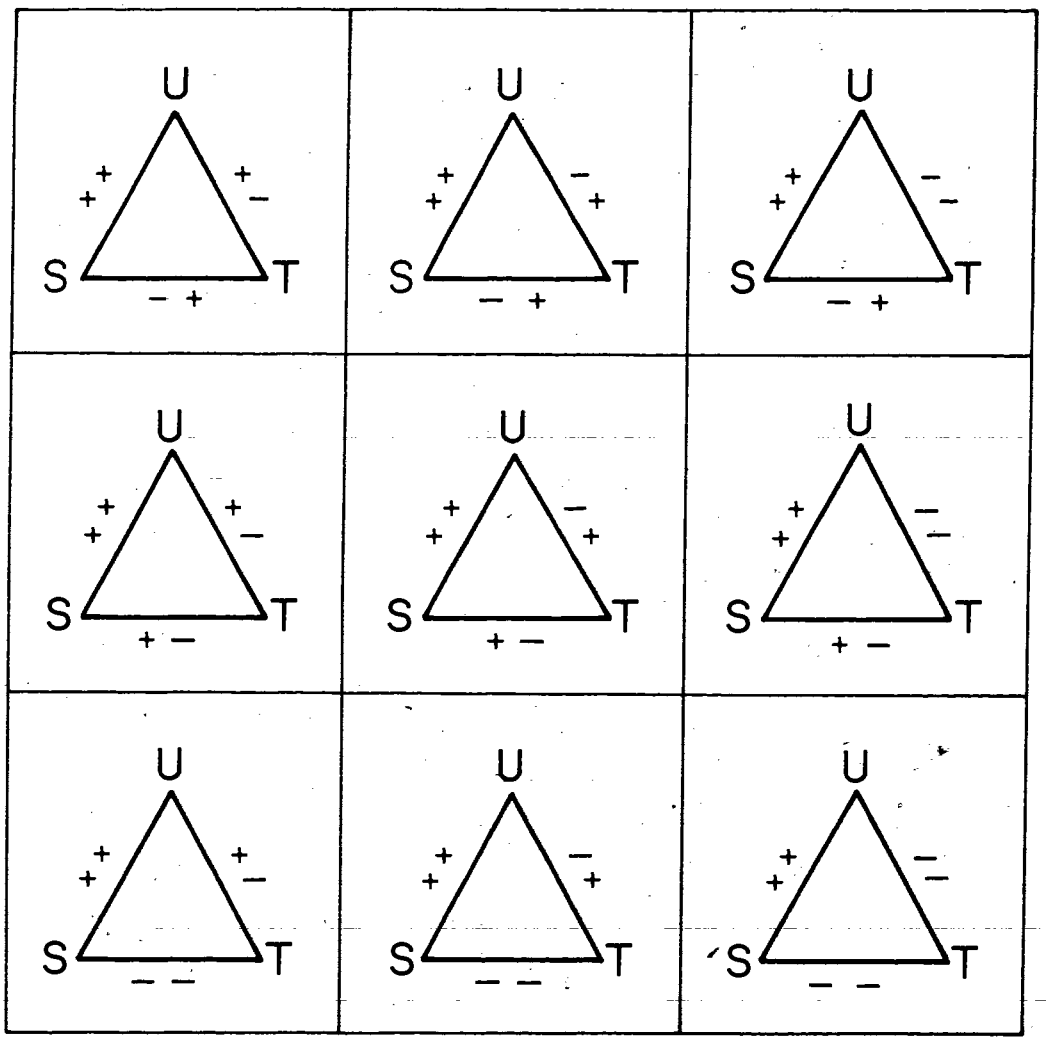


Figure 2. Possible dyad combinations within a (+--) triad.

university supervisor - cooperating teacher dyads remained the most stable of the three (p. 103). He attempted to show that there "are negative dyadic relations between leaders and student-teachers . . . presumably based upon common interest" (p. 104). A subsequent analysis of positive and negative shifts in dyad relationships from pretest to post-test showed no statistically significant results for any combination of dyads (Sign Test), thereby casting some suspicion on Dr. Yee's claim that negative relationships between the leaders and student-teachers were present to a significantly greater degree than in other relationships.

Disturbing trends were detected in the study, suggesting that the triad was subject to breakdowns that could threaten the practicum. Yee's study may have acted as a catalyst for other researchers. Olmo (1973) studied the desirability of coordinating all personnel involved in the practicum, and concluded that the practicum had not achieved its goals "when problems of communication have occurred because the methods instructor, university supervisor, cooperating teacher and (student-teacher) view the program without a common frame of reference" (p. 88). These views were echoed by Campbell and Williamson (1973) who emphasised that "harmonious compatible relationship(s) . . . should be the goal of everyone concerned" (p. 169). Following a survey of 120 institutions affiliated to the American Association of Colleges for Teacher Education, Overbeck and Quisenberry (1976) claimed that success in the practicum, and wise career decisions by student-teachers, demanded clear role descriptions for all participants and open communications between them (pp. 36-39). Similar beliefs were reflected in the program devised by Davis and Davis (1977) in which conferences and performance contracts were devised to

improve supervisory relationships, establish basic guidelines and facilitate the performance of the student-teacher.

The areas of cooperation, role concensus and role conflict appear to be of paramount importance to the practicum. Unless all participants are aware of each other's expectations, rights and responsibilities, the practicum could be ineffective and potentially damaging to all parties. The potential danger was illustrated by Cohen (1969) in his study of 80 student-teachers' classroom behaviour during the practicum and "their perception of the expectations for their behaviour held by" (p. 52) the college supervisor and cooperating teacher. The eight-item questionnaire employed a five-point scale and dealt with aspects of classroom discipline and "appropriate personal relationships to be established with children" (Cohen, 1969 , p. 53). He reported that first-year student-teachers' own behaviour differed significantly from the expectations they attributed to the college supervisor on four of the eight items and from the expectations they attributed to the cooperating teacher on six of the eight items. Significant differences for the third year student-teachers were reported for six and seven of the items respectively. The author did not report differences between the expectations student-teachers attributed to the college supervisor and the cooperating teacher. A subsequent analysis (t tests for correlated data) of data contained in the report revealed significant differences ($p \leq .05$) on six of the eight items for first and third year student-teachers. In the majority of the cases the differences that student-teachers believed existed between their college supervisors and cooperating teachers were statistically more significant than the differences student-teachers believed existed between themselves and either

the college supervisors or cooperating teachers. Such results highlight the fragile nature of the teaching triad and suggest that a closer examination of individuals in the triad would be justified.

The university or college supervisor. Conant (1963) in his commentary on teacher education, strongly recommended that teacher training institutions appoint clinical professors, "the only really legitimate professor of education, a polymath who somehow combines theory and practice as nobody else is able to do" (Broudy, 1964, p. 209). Conant proposed specifically that

> Every institution awarding a special certificate for secondary school teachers should have on the staff a clinical professor for each field or combination of closely related fields" (p. 213) . . .. The professor from the college or university who is to supervise and assess the practice teaching should have had practical experience. His status should be analogous to that of a clinical professor in certain medical schools (p. 214).

This suggestion received a mixed response from institutions, but may have prompted the development of some innovative approaches. In a national survey of 879 institutions, conducted in 1973, Kazlov (1976) attempted to discover if institutions had clinical professors. Institutions with such people were asked to name the position and provide a role description. She found 163 of 545 responding institutions (30%) believed they had clinical professors. She also found a strong emphasis on the traditional supervisory roles, heavy recruiting from within the universities and salary structures based on the university schedules (p. 340). Few clinical professors spent significant time teaching in school classrooms. They therefore felt out of touch with the university and complained at the "lack of clarity about the role of the clinical professor" (p. 341).

This concern has pervaded many papers written in the past decade. Purpel (1967) considered that institutions should be offering systematic instruction in student-teaching and "should not be involved with a student-teaching program that amounts simply to a placement bureau" (p. 22). In his view, aspects of student-teaching were little less than a national scandal . . . (with a severe shortage of sensitive and knowledgeable supervisors who are experts in the teaching process and who have at their disposal the enormous amount of time required to help a student learn about teaching" (p. 22). Earlier, Perrodin (1961) had undertaken research that indicated, if increased scores by student-teachers on the Minnesota Teacher Attitude Inventory were considered valuable, that "student-teachers tended to make greater increases when placed with supervising teachers who had completed the supervising teacher preparation program" (Perrodin, 1961, p. 38). Parry (1972), in his critique of the "James Report" (Teacher Education and Training, 1972) concurred with many of Purpel's views, suggesting that the college supervisors were 'outsiders', holding other professional associations and ties that were strongest "not with schools but with universities" (p. 51). As has already been indicated, Lord James expressed concerns at what he saw as serious deficiencies in the practicum, adding specific reservations about the system of supervision.

> as the number of students has increased and their placements become more distant, (supervisors) have spent more time in travelling to and from schools and less in supervising students. They may find themselves trying to help students in a school situation with which they are themselves unfamiliar. The result is sometimes that students may receive little detailed professional guidance (Teacher Education and Training, 1972, para. 3.7).

This was echoed by Morrison and McIntyre (1973) who reported that the

supervisor was sometimes seen as "an unrealistic visitor into the school situation" (p. 70) and emphasised by Oestreich (1974) who saw the supervisor as the "weakest link" (p. 337).

It is obvious that widespread dissatisfaction with many supervisory arrangements has existed for some time. The concept of a clinical professor who could "bridge the chasm between pre-service education courses" (Tom, 1974, p. 250) had received limited acceptance (Kazlov, 1976) a finding confirmed by Tom (1974). He identified various problems including multiplicity of tasks and setting, inadequate training, conflicts between institutional orientations, school-university reciprocity, career structures, financial restraints and administrative authority (pp. 252-254).

What are the alternatives? Should university and college faculty be "in the school as frequently as (they) are in (their) office and campus classroom?" (Krajewski and Cate, 1974, p. 76). Research seems to suggest at least three possible approaches to this dilemma.

The first solution requires that the institutions clearly describe the roles that have to be fulfilled in order to meet institutional needs. It may then be possible to share these roles between a number of appropriate people. Neal, Kraft and Kracht (1967) asked university and school personnel, associated with a practicum program, to identify the roles that should be accepted by university supervisors. Their free responses placed heavy emphasis on the liaison role (41%, rank 1; p. 27). Additionally, the authors stressed that no group of respondents (university supervisors, student-teachers, school administrators and cooperating teachers) identified the "critical evaluation of the student-teacher" (p. 27) as an appropriate role for the university supervisor. "They point(ed) out that this part of

the work actually belongs to the local cooperating teacher" (p. 27). Perhaps this critical evaluative role could be assigned to another person or group of people.

A second possible solution could be the appointment of teacher-tutors. Such a move was recommended by Evans (1971) who called for greater participation by schools in the training program of student-teachers. He saw teacher-tutors as classroom teachers who would have part-time responsibilities in their classrooms and part-time responsibility for the coordination of teaching practice in their schools. The tutor would

> be directly responsible for the introduction of the student (teachers) in his charge to the practical realities of the classroom . . .. In such circumstances the college lecturer would visit the school not to observe his students 'performing in front of a class' . . . (but) to obtain school experience (p. 106).

Final assessment of the student-teacher would rely heavily upon the teacher-tutor judgement.

A second teacher-tutor model would involve a teacher in a joint school-college appointment in which the teacher would spend some time teaching in a school classroom. The remainder of the time would be committed to the supervision of the practicum and teaching in college or university courses. A variation of this model has been devised for the Simon Fraser University program with the short-term appointment of experienced classroom teachers as faculty associates, who provide both critical evaluation and links between the theory and practical components of the Professional Development Program (Allen, Note 2).

Appointments of teacher-tutors, in various guises, have been made in a number of places including Australia, Canada and the United Kingdom. Both

the "James Report" (Teacher Education and Training, 1972) and the Scottish "Brunton Report" (The Training of Graduates for Secondary Education, 1972) recommended such appointments. The latter Report said:

> 21(b) The schools must be intimately associated with teacher training, not incidentally but of set purpose and on the basis of a formal system of cooperation understood by the profession and the colleges alike and worked out in harmony with the employing authorities. Inside the schools where teacher training is taking place there will require to be someone whose duties include responsibility for the students in training and the newly appointed recruits to the profession. It will be his task inter alia to see that continuous, meaningful assessment of progress in actual teaching marches step by step with the college's internal assessment of the course . . .
>
> (c) While it may be confidently expected that the profession, if invited to share this responsibility, will accept the invitation, it must be fully understood that a good teacher is not automatically a good teacher of teachers, and that the system of cooperation envisaged above also envisages a great deal of training ad hoc. The pump in fact must be primed (p. 11, paragraphs 21b and 21c).

A variation on this scheme has been suggested by Warner, Houston and Cooper (1977). They noted the trend to extend the role of someone in the school from cooperating teacher to "Teacher Education Clinician" (p. 15) and, in recognising the "significant occupational socialization impact" (p. 16) of cooperating teachers, suggested that:

> Bridging the traditional dichotomy between preservice and inservice teacher education, the school-based teacher educator is a classification of specialists in instructional improvement: teachers of teachers . . . who fulfill their roles in elementary and secondary schools (Warner et al., 1977, p. 15).

The authors emphasised that the goal of the clinical supervision process was to produce teachers and student-teachers who moved from "super-vision to self-vision, assuming increasing responsibility for further personal/

professional growth, and basing that growth process on data rather than on intuition or emotion" (p. 16).

This philosophy is reflected in the Simon Fraser University Professional Development Program and appears to have gained acceptance elsewhere. The term "extended faculty" has been coined by Wiles and Brooks (1978, p. 75) in the last few months to describe the wider role of cooperating teachers. For these authors the extended faculty adopt such duties as coordinators of early experiences, participants in courses at university, school district advisors, participants in the development of evaluation instruments, consultants for the training of other extended faculty and members of advisory boards (Wiles and Brooks, 1978, p. 76).

The above solutions seem to support the premise that a permanent university supervisor is not appreciated or is not seen to be capable of carrying out the traditional evaluative role.

A third alternative is suggested by the Brunton Report's remark "a great deal of training" (The Training of Graduates for Secondary Education, 1972, paragraph 21c). A number of writers have pointed to the absence of training as a deficiency. Oestreich (1974) noted that college supervisors have had little training or experience in the acquisition of supervisory skills or competencies" (p. 337). Morrison and McIntyre (1973) reported that supervisors rarely agree on important areas of advice for student-teachers (p. 68). Diamonti (1977) believed that student-teachers and cooperating teachers expect the supervisor to bring to the relationship a fund of knowledge (p. 484) whilst Kachur and Lang (1975) called for the "development of guidelines for the qualifications of . . . coordinators of student-teachers" (p. 202).

What evidence is there to suggest that the university supervisor may have an evaluative role to play? Lantz (1967) suggested that such persons were likely to give more valid teaching assessments than were the cooperating teachers. Soares and Soares (1968) reported that "there is a greater correspondence between the college senior's self-concept and his judgement of his (university) supervisor's rating of him as a teacher, than between his self-concept and his judgement of his cooperating teacher's rating" (p. 189). Cicirelli (1969) undertook a content analysis of reports written by university supervisors and concluded that

> More creative supervisors (as measured on the Torrance Tests of Creative Thinking) will be aware of a greater number of factors in a student teacher's performance, will tend to use broad general factors in assessing a student teacher's performance rather than specific detailed ones, and will be more sensitive to factors involving teacher-pupil relationships than will their less creative colleagues (p. 375).

Morris (1974) concluded that although "there was no significant difference between the classroom performance of student teachers who received supervision from the university supervisor and those who did not" (p. 361) some students who received the supervision felt better prepared. She also found that some "student teachers perceived themselves to perform better when the university supervisor took an active role in their experience" (p. 360). It may be that the supervisors can overcome many of the apparent negative feelings about their work by demanding and undertaking appropriate training and preparation.

> They (the institutions) must professionalize supervision. To do less is to insult the supervisors, and what is worse, cheat the student teachers (Purpel, 1967, p. 23).

Hopefully, the development of suitable programs for supervisors would end Maden's vision of "frightened, inadequate and apologetic college lecturers

unable to 'save' rampaging classes" (1971, p. 112). As a member of the teaching triad the supervisor must have sufficient skills to ensure that the relationships within the triad act as a potent developmental force.

The cooperating teacher. The second person in the triad, seen by many researchers as the most important element in the practicum, is the cooperating teacher. Campbell and Williamson (1973) are quite dogmatic - success in student-teaching is not contingent upon the school placement or upon the subject area taught; "simply, the most important variable is the relationship between the student-teacher and the cooperating teacher" (p. 168). Yee agreed (1969), as did Diamonti (1977), noting that "the cooperating teacher is the only individual who can realistically be expected to have the kind of contact necessary to give any kind of meaningful help and guidance to the student-teacher" (p. 485). This view still appears to be current as evidenced by Church (1976), and Mott (1976) who considered "the influence of the cooperating teacher . . . (to be) profound and lasting upon the ideals and attitudes of the student teacher" (p. 6).

Although there seems little doubt that the cooperating teacher has an important role to play and that student-teachers should have access to 'live' classes, has everything been done by the universities and colleges that could be done to facilitate the work of the cooperating teacher? As was concluded in relation to the first member of the triad, the answer appears to be in the negative.

Infrequently it is recognised that the classroom teachers have to balance competing influences for their time, or that they encounter ambiguous and anxiety provoking situations from day to day. In their interaction with thirty pupils

> they are responsible for transmitting certain facts, ideas and processes to all of these children, even though they have different personalities, attitudes, interests and abilities. In the face of all this diversity, the teachers must find a way to get their student (teachers) interested in, and learning about, the curriculum . . . it creates a difficult burden (Diamonti, 1977, p. 481).

The difficulties are compounded if the training institution has failed to prepare supervisors and, with an indulgent smile, gives the cooperating teacher " the de facto responsibility for supervision" (Purpel, 1967, p.22).

As indicated by Oestreich (1974) limited research has been undertaken on the necessary skills, competencies and characteristics of the cooperating teacher (p. 336). Often student-teachers are exposed to the "professional osmosis phenomenon" (p. 335) in which it is assumed that they will absorb appropriate teaching styles and develop positive teacher characteristics with little guidance or preplanning by the institution or cooperating teacher. Unfortunately the experience may be disastrous. The student-teachers may be exposed to unsystematic periods of induction, fail to receive informational material and find that teachers have no plans to undertake structured observations, conduct analyses, or gradually introduce them to complex teaching activities and responsibilities.

In an effort to ensure that the cooperating teacher "has reached a level of expertise and has a fund of knowledge that enables (the teacher) to help solve problems, give guidance, evaluate, and express opinions and judgements" (Diamonti, 1977, p. 482) some institutions have provided inservice courses, seminars and workshops, accompanied by close cooperation between all parties. An example of such arrangements may be seen in the Simon Fraser University Professional Development Program in which supervisors and cooperating teachers undergo substantial periods of preparation.

As Ellis (1967) noted, the role of the cooperating teacher has traditionally been minor. The Simon Fraser University program has consciously attempted to involve the teaching progression in "a much more equal partnership with the university in the preparation of teachers" (p. 425). To this end the preparation provided by Simon Fraser University has sought to clarify roles and responsibilities, develop observation skills, and provide classroom process analysis techniques. It has also provided workshops covering a wide range of curriculum related topics (Reed , Note 3).

A further example was reported by Boyan and Copeland (1974) at the University of California at Santa Barbara. Over a three-year period, they developed a self-contained "Instructional Supervision Training Program" (ISTP), subjecting the materials to constant review, and field testing the program in nine United States sites. Assumptions underlying the development of the ISTP included:

> 1. that instructional supervision must focus on a teacher's instructional concerns, particularly with respect to the effort of the teacher's behaviour on pupils; (2) that a systematic and objective approach to instructional supervision will aid supervisor and supervisee, together, to identify and resolve the latter's specific instructional problems; (3) that instructional supervision operates best when it takes the form of a nonthreatening, supportive, and helping relationship between supervisor and supervisee; and, (4) that instructional supervision operates most effectively when the strengths of a systematic problem-solving approach are combined with a nonthreatening, supportive, and helpful relationship between supervisee and supervisor (p. 101).

An extensive study of the effectiveness of the program revealed that of the sixty different scores available in the analysis of the ISTP, 53 scores were in the appropriate direction and 45 were statistically significant at the $p < .05$ level (p. 100). Cooperating teachers undergoing

the program were shown to be capable of such activities as the identification of successful performance, the recognition of negative and positive behaviour patterns and the development of alternative strategies for producing desired change (p. 107).

Institutions may be well advised to provide some assistance to their cooperating teachers. It has been emphasised that, if the education (of student-teachers) provided both within the schools and the colleges is to meet with success, problems of professional dissonance must be overcome" (Evans, 1971, p. 108).

The teaching triad in operation. This brief review of elements in the triad has served to highlight the multiplicity of pressures that may be placed upon the structure. Whether the triad will prove to be a negative or positive experience for each student-teacher may depend to a significant extent on the level of mutual understanding, respect and cooperation that can be generated and maintained.

Recent comments have indicated that the triad should not come together by chance, but should be formed after careful selection and screening procedures. Krajewski and Cate described procedures used at the University of Tennessee in which all student-teachers are placed in schools following selection interviews with the school principal and university coordinator (1974, pp. 76-77). Campbell and Williamson (1973) believed that the development of harmonious relationships had such a profound effect on the success or failure of the practicum that

> some criterion in addition to a desire to student-teach in a particular school must be considered in the assignment of student-teachers . . . Likewise, . . . some criterion in addition to a willingness to work with student-teachers must be employed in the selection of cooperating teachers (p. 169).

Some research has examined the influence of cooperating teachers upon student-teachers. Over a five-year period McConnell (1960) asked 120 student-teachers to identify actions of cooperating teachers found to be helpful and to identify aspects that were considered to be deficient. The positive patterns of responses were placed into six groupings:

> Personal influence of supervisor and her relations with the student;
> Aid and encouragement with initial planning and teaching;
> Initiation into teaching;
> Help in assuming additional responsibility for class;
> Suggestions for improving plans, sources of materials, etc.;
> Guidance with child study, classroom management (and professional growth (McConnell, 1960, p. 86).

Five groupings were formed to report the areas of deficiency identified by the student-teachers:

> More conferences; more specific suggestions;
> Need for security; defining role of student-teacher;
> Her duties and responsibilities;
> Guidance in child study, classroom management, teaching;
> Desire for more responsibility and opportunity for initiative (McConnell, 1960, p. 86).

Using a limited sample of six student-teachers and three cooperating teachers McAulay observed influences that cooperating teachers appeared to wield over student-teachers during a 12-week practicum. He concluded that "generally, student-teachers seem to be greatly influenced by their co-operating teachers in methods of teaching, techniques of classroom house-keeping and relationships with children . . .. Student-teaching experiences seem to have more influence on the methods, techniques and materials used by a . . . (student-teacher) than do college methods courses" (McAulay, 1960, pp. 82-83). In a more sophisticated study Price (1961) compared Minnesota Teacher Attitude Inventory (MTAI) scores before and after the practicum for 45 student-teachers and 45 cooperating teachers, split into

three sub-groups of 15 and further split on the basis of low, middle and high MTAI scores on pretest. He found that, overall, student-teachers' MTAI scores changed significantly in the direction of the cooperating teachers' scores on the same test ($p < .05$) mainly as a result of the regression of extreme scores toward the mean, and concluded that the "trend here . . . did indicate that student-teachers' attitudes were altered in the direction of those held by their supervising teachers" (Price, 1961, pp. 473-474). This result was claimed to have implications "for the more discriminating selection of supervising teachers" (Price, 1961, p. 474).

The studies undertaken by McAulay (1961) and Price (1961) were referred to by Yee (1969) in a further examination of attitudinal changes among student-teachers. He saw a necessity to check influences in both directions in the student-teacher and cooperating teacher dyad (see also Yee, 1968) as these persons "mutually determine the nature and outcome of the interpersonal behaviour event in student-teaching" (Yee, 1969, p. 328). Using a sample of 124 student-teachers and 124 cooperating teachers during a 16-week practicum, he found that "dyads showing influence by the cooperating teacher toward congruity or incongruity are more frequent than those showing student-teacher influence" (Yee, 1969, p. 330). Further, he reported that as the cooperating teachers' influence was strongest in the congruent direction, "the attitudes of student-teachers toward young people generally reflect the predominant influence of their cooperating teachers" (Yee, 1969, p. 331).

Such research appears to add credence to Kachur and Lang's (1975) call for the development of guidelines for the selection and qualifications of coordinators, reported earlier in this chapter (1975, p. 202). If selection

is successful, regular conferences between all members of the triad should be rewarding. Eye (1974) sees the triad as a "functioning set" (p. 165) in which each member has freedom of communication with the other two, but where there has been a clear definition of the power and role of each member and their respective institution (p. 167). Davis and Davis (1977) formalise the relationship by requiring that a supervisory agreement be drawn up covering such aspects as content, teaching style, pupil evaluation, classroom management and student-teacher evaluation (p. 195). Soares and Soares (1968) agree that there should be attempts to define clearly roles, responsibilities and relationships of triad members and that regular conferences are essential. One would hope that such conferences and training sessions should improve on past attempts seen by Tom (1975) as "nothing more than bull sessions or dull homilies delivered by an ossified director of student-teaching" (p. 84).

The future? This chapter began by recognising the importance of the practicum and by identifying some concerns of teacher educators in the mid-to-late 1960's. A new set of problems is now emerging associated with the teaching professions' participation in teacher education, problems that are, to some degree, a legacy of many institutions' "ivory tower" attitudes.

Purpel's reference to competing influences on the teacher (1967, p. 23) can be seen as a warning to teacher educators. If involvement in the practicum does not produce "substantial and tangible benefits" (p. 23) for the participants, teachers may decide to withdraw or seek control of the program. This view had been cogently presented by Pomeroy (1975) who recognised that the "organised profession makes no bones about its goals and the political clout it wields" (p. 196). He identified the central

issue as governance of teacher education, but also identified accreditation, collaboration, professional development and program innovation as related and important issues. He believed that teacher educators have already lost control of the practicum and, unless the pace of development quickens, will see the teaching profession "soon outpoint us in designing and controlling inservice programs" (p. 200).

This view was reinforced by Kachur and Lang (1975). They noted that professional organisations (National Education Association and the American Federation of Teachers) were pushing for the substantial involvement of teachers in teacher education, a move that had flowed through to school board contracts with some local teacher associations. They cited agreements specifying evaluation procedures, roles and responsibilities of teachers, cooperating teacher qualifications and experience levels, and the number of student-teachers in each school (p. 202). The authors remarked that, in some instances, there was no indication that "the university was a third party signatory to (these) agreements" (p. 203). Further, they reported that agreements between school boards and universities covering the practicum arrangements were in conflict with more recent school board-teacher associates agreements. They believed that the latter contracts would prevail (Kachur and Lang, 1975, p. 203). Such contracts did not recognize the role of the university as a policy-making institution and interfered with the ability of the university "to design and implement programs" (p. 203). Clauses cited as examples included:

> "No teacher shall have more than one student-teacher per year. (Thomaston Public Schools, Connecticut)".
> "There shall be no more than one student-teacher in any one department in the High School, no more than three student-teachers in the Middle School and no more than one student-

> teacher on any grade level in the Elementary School. (Mt Pleasant Union Free School District #9, Mount Pleasant, New York" (p. 203).

Limitations by schools upon student-teacher numbers was seen by Pacacha (1977) as a move by teachers' unions to "seek an alternate form of governance" (p. 106) of teacher education. He saw the action as "unreasonable, unjust and unprofessional . . . . (as it) tampers with the free market system" (p. 196).

It would appear that institutions which do not examine closely their policies, procedures and levels of participation in the profession or take the initiative in negotiations with teacher organisations could be at risk. They could be forced to "abandon responsibility for the clinical preparation of teachers . . . (and) permit the major responsibility for policy determination to become the preregoative of the public schools and local teacher associations" (Kachur and Lang, 1975, p. 205).

The Simon Fraser University Professional Development Program

Simon Fraser University opened in the Fall of 1965 at a time when many of the problems faced by pre-service teacher education institutions, identified in the previous section, were being researched. The first head of the Department of Professional Foundations, Dr. John Ellis, noted that the Faculty planners considered it "essential . . . to avoid some of the problems being faced by many . . . sister institutions" (1967, p. 423) in the development of programs and "sought to remove from (the) curriculum the irrelevancies and redundancies so frequently observed in universities" (1967, p. 423).

The underlying principles developed for the program in 1965 have continued to underpin the program. The early planners were convinced that

1. The student who desires to teach should receive from the earliest moment a fairly lengthy, intense and realistic exposure to life in the classroom . . .
2. The curriculum of teacher training requires the judicious mixing of theory and practice . . .
3. The training of professionals calls for a partnership between the University and the school system . . .
4. Professionals should not be trained at the expense of their clients . . .
5. Not all those who express a desire to become teachers should be recommended for a teaching certificate . . .
6. The similarities between teaching different subjects and levels are greater than the differences between them (Kaser-Cannon and Marsh, Note b, pp. 3-4).

A number of these principles represented a major shift by a university away from the traditional elements of preservice programs, namely, short teaching periods of a general nature presented in a haphazard fashion

(Channon, 1971, pp. 69-70), with little meaningful involvement in the program by classroom teachers. Although it was recognised that, at best, a preparatory program could "only provide a basis for beginning to teach - ~~for~~ continuing growth" (Ellis, 1968, p. 59), the Simon Fraser program set out to prepare a teacher of the future who would be a comprehensive generalist with a broad background, some depth, considerable skills in independent inquiry that encouraged an examination of the "why's?", and the ability to operate as a member of an educational team (Ellis, 1968, p. 61). By the mid-1970's it was being claimed the "co-operative attack on teacher education by (the) university and the local systems buttressed by a variety of academic and other social service programs . . . (had developed into) the best teacher education program in the Americas" (De Nevi, 1974, p. 17).

Features of the Program

To allow this study to be placed in perspective, a number of the special features encapsulated in the program principles should be examined more closely.

Length of classroom experiences. A total of approximately twenty weeks is spent in the classroom by student-teachers undertaking the one-year program. This is a considerably longer period than is offered in many programs, and reflects the Faculty's willingness to reduce the time allocated to on-campus courses in order to provide extensive classroom experiences. The length of the practica exceeds the minimum recommended by the recent British Columbia Commission (The Education and Training of Teachers in British Columbia, 1978, pp. 13-14).

University-school liaison and supervision of student teaching. As noted in the principles underlying the program, the Faculty has placed great

emphasis on the development of partnerships between the university and the teaching profession. Whereas some programs have restricted student teaching as faculties were unable or unwilling to provide extensive liaison and supervision, or were "reluctant to rely too heavily on classroom teachers whose knowledge of curriculum design and instructional psychology are sometimes considered inadequate" (Gregory and Allen, 1978, p. 53), the Simon Fraser program has highlighted active co-operation with the teaching profession. It has been claimed that "the university is not using the schools merely as a training ground for its teachers, but . . . is working with the schools to improve the quality of education from its beginning to end" (De Nevi, 1974, p. 20). The appropriateness of this belief is substantiated by a recent report which suggested that "the universities by themselves do not and cannot produce consummate teachers" (The Education and Training of Teachers in British Columbia, 1978, p. 6).

These attitudes appear to be reflected in the Faculty's staffing of the program based on the extensive involvement, on limited term contracts, of current or recent teachers. The Director is a member of Faculty, appointed by the Dean of Education for a specific period, usually three years. Coordinators, also appointed by the Dean following appropriate consultation, lead teams of Program Consultants, Faculty Associates and School Associates. The latter are current classroom teachers who become responsible for aspects of school-based practica, whilst the former are usually recent ex-teachers or teachers on-leave. There are no permanent appointments to any position in the Professional Development Program. Members of the Faculty are encouraged to act as consultants to student-teachers, coordinators and schools, and to participate in induction and in-service

programs for school districts in British Columbia.

The Faculty has made extensive efforts to avoid the conflicts often associated with the supervisory triad, as detailed elsewhere in this chapter. Rather than require Faculty members to undertake school liaison duties, the Faculty, in conjunction with School Boards, appoints well-qualified proven teachers as Faculty Associates for one year with the possibility of a renewal for a further year. The Faculty Associates are grouped with a Coordinator and Consultants in either the lower mainland or one of the 11 sites operated by the Faculty in the interior of British Columbia.

The use of Faculty Associates reflects the feeling that school staff are more likely to listen to colleagues than to "a professor whom they perceive as having only momentarily left the inner recesses of his ivory tower" (Ellis, 1967, p. 426). This view is supported by Allen who reported that although the Faculty Associates were still considered to be teachers their knowledge of the program "seemed to give them credibility in the schools to a degree that would have been difficult for the professors to achieve" (Note 2, p. 13). Further, such appointees are most able to assist student-teachers "to integrate experience gained in the schools with the best professional ideas available on the campus or in the literature" (Ellis, 1967, p. 426). The regular infusion of new Faculty Associates each year avoids stagnation in the program and uses available resources. The scheme also provides the opportunity to a number of classroom teachers to leave their classrooms, have contact with scholars and rethink their role as a teacher. Ellis claimed that there is just cause to be optimistic about the effects the flow of 30 to 40 teachers from school to university to school will have on the education system, and saw it as "an expression of

our deep conviction that we must be ever more alert to the problems of continuing education for teachers" (1967, p. 426). This supported De Nevi's claim that the University works with the schools (1974, p. 20). Additionally, it suggests that the Simon Fraser program already meets the recommendation of the McGregor Committee, that "the supervisor (faculty associate) must be an experienced classroom teacher, familiar with the schools, the provincial curriculum and the school system" (The Education and Training of Teachers in British Columbia, 1978, p. 18).

The Faculty Associate's duties include supervision, two-way liaison between the schools and the university, the interpretation of university policy relating to the practica in particular and the Professional Development Program in general, and participation as instructor and seminar leader in course ED. 402. In the latter role, the Faculty Associate supports, listens, counsels and plans; as instructor the Faculty Associate plans, teaches, demonstrates, and stimulates; while as a supervisor the Faculty Associate supports, analyzes, clarifies, mediates, observes, judges and communicates. Emphasis is placed on the goal of helping the student-teacher to develop individual solutions to individual problems thereby encouraging each student-teacher to "try to understand the other points of view, to see what value there is in them, and to exercise freedom to adapt, change, accept, or reject them" (Dobbs, O'Sullivan and Tomsich, Note 7, p. 5).

Prior to the practicum, student-teachers are briefed by the Faculty Associate on school expectations and appropriate university and school regulations in the belief that early and thorough clarification and communication of roles can eliminate potential problems. Regular visits are

made to the student-teachers' classroom during the practicum to establish and maintain a working relationship between triad members and to implement a cyclical method of clinical supervision. The cycle has four phases:

(i) pre-observation meeting between the student-teacher and the Faculty or School Associate to agree upon aspects to be observed during a teaching segment;

(ii) observation, focussing on selected teaching behaviours related to the selected teaching skill or skills and incorporating the recording of objective and descriptive data, in code or verbatim;

(iii) independent analysis of data by participants;

(iv) post-observation meeting involving guided self-analysis by the student-teacher, comments and suggestions by the Associate(s) and subsequent planning and restructuring of future teaching (Dobbs et al., Note 7, pp. 10-13).

Communication throughout the practicum must be open, continuous and honest as the Associates and the student-teacher "must make a critical judgement as to whether the student-teacher has demonstrated adequate competence and inclination to continue to grow professionally to be recommended for certification as a teacher" (Dobbs et al., Note 7, p. 7).

The traditionally minor role of the School Associate (supervising or cooperating teacher) has been greatly expanded in the Simon Fraser program, reflecting the University's belief in an equal partnership of the teaching profession in teacher preparation. It is considered to be "safe and advantageous to transfer considerable responsibility from the campus to the school" (Ellis, 1967, p. 425). The relationship and interaction between the School Associate and the student-teacher is critical to the success of

the program. The School Associate has a major role in the guidance and counselling of a student-teacher and accepts the responsibility for methodology instruction during the practicum. Supervision is on a regular day-to-day basis, incorporating the cycle of supervision outlined above. In addition to formative, non-judgemental evaluation the School Associate participates in the triad's summative evaluation and submits an independent summative report for inclusion in the student-teacher's permanent personal record file.

The McGregor Committee's recommendation that "the task of preparing the sponsoring teacher (school associate) must be undertaken far more seriously than is contemporary practice" (The Education and Training of Teachers in British Columbia, 1978, p. 18) may be aimed more at other teacher preparation programs in the Province than at the Simon Fraser program. In 1974 a pilot supervision training program was introduced in which the main components were

> information about the program and clarification of the roles of those involved in it; consideration of common problem areas such as assessment, giving and receiving feedback, and communication (Allen, Note 2, p. 12).

The program was received enthusiastically, expanded in 1975-6, and supported by the creation and appointment of program consultants, ensuring that "training in supervision (became) part of rather than an adjunct to the normal pattern of supervision" (Allen, Note 2, p. 12). In addition to the introduction of the supervision cycle, Associates participated in workshops and follow-up sessions, role plays, simulations, analyses of videotaped lessons, discussions on methods and settings, expectations of program participants and an examination of program objectives (Allen,

Note 2; O'Sullivan, Dobbs, Andrews, Hay, Kaser-Cannon and Snively, Notes 8 and 9; Reed, Note 3).

It would appear that the staffing of the Professional Development Program has been designed to provide intense and appropriate support to student-teachers and is likely to avoid many of the dyad, triad and role conflicts that have so beset other programs. In particular, the arrangements recognise the important roles that can be carried out by the teaching profession, meeting the British Columbia Teachers' Federation policy that "the profession [. . . have major responsibility in the training of recruits to the profession" (Vogt, 1969, p. 112).

External Programs

A number of two-year Colleges have been established in regional areas of British Columbia offering a variety of 2-year pre-university programs. It is possible for students to be admitted to the Simon Fraser University Professional Development Program on the basis of an approved minimum of 60 credit hours gained at a regional college. In 1973 a decision was made to establish a pilot external Professional Development Program at Vernon, approximately 255 miles from Burnaby, "primarily as a service to students in the area" (Allen, Note 2, p. 6) who might wish to undertake eight of the 12 months' program off-campus. Rented facilities were obtained in the area and a resident Faculty Associate was employed as student supervisor and program coordinator. The success of the pilot program resulted in the establishment, in subsequent years, of centers at Chilliwack, Cranbrook, Dawson Creek, Enderby, Kamloops, Kelowna, Nelson, Penticton, Prince George and Salmon Arm , plus alternative programs in the metropolitan area of Vancouver.

Workshops for student-teachers are held at the centers, thereby integrating in-service and pre-service education and using the talents of visiting Simon Fraser University Faculty. "In most districts . . . teachers are given a limited amount of release time to attend workshops . . . (allowing student-teachers) and supervising teachers to work together on applications of ideas" (Allen, Note 2, p. 7).

Program Sequence

Admission and withdrawal procedures and objectives. Applications for admission to the Professional Development Program are received from interested persons during the semester preceding the semester for which the program is sought. Candidates must satisfy the Faculty of Education that they have a basic command of English. Additionally they must meet an academic prerequisite of either 60 semester hours of university/college academic credit if seeking to teach in elementary schools, or hold an undergraduate degree if seeking to teach at the secondary level.

Student teachers who are unable to complete a specific course in the program are able to withdraw without this affecting their grade point averages. Such withdrawals may be voluntary or recommended by the Faculty Associate, School Associate and Program Coordinator. (See Appendix A).

Course ED, 401: Introduction to classroom teaching (7 credits). The first course in the 12-months program (see Figure 3) immediately introduces student-teachers to the school for half a semester of observation and varied classroom activities. The first of seven weeks is spent on campus for a program orientation by the student-teacher's Faculty Associate and Program Coordinators and a visit may be made to the school to meet the School Associate.

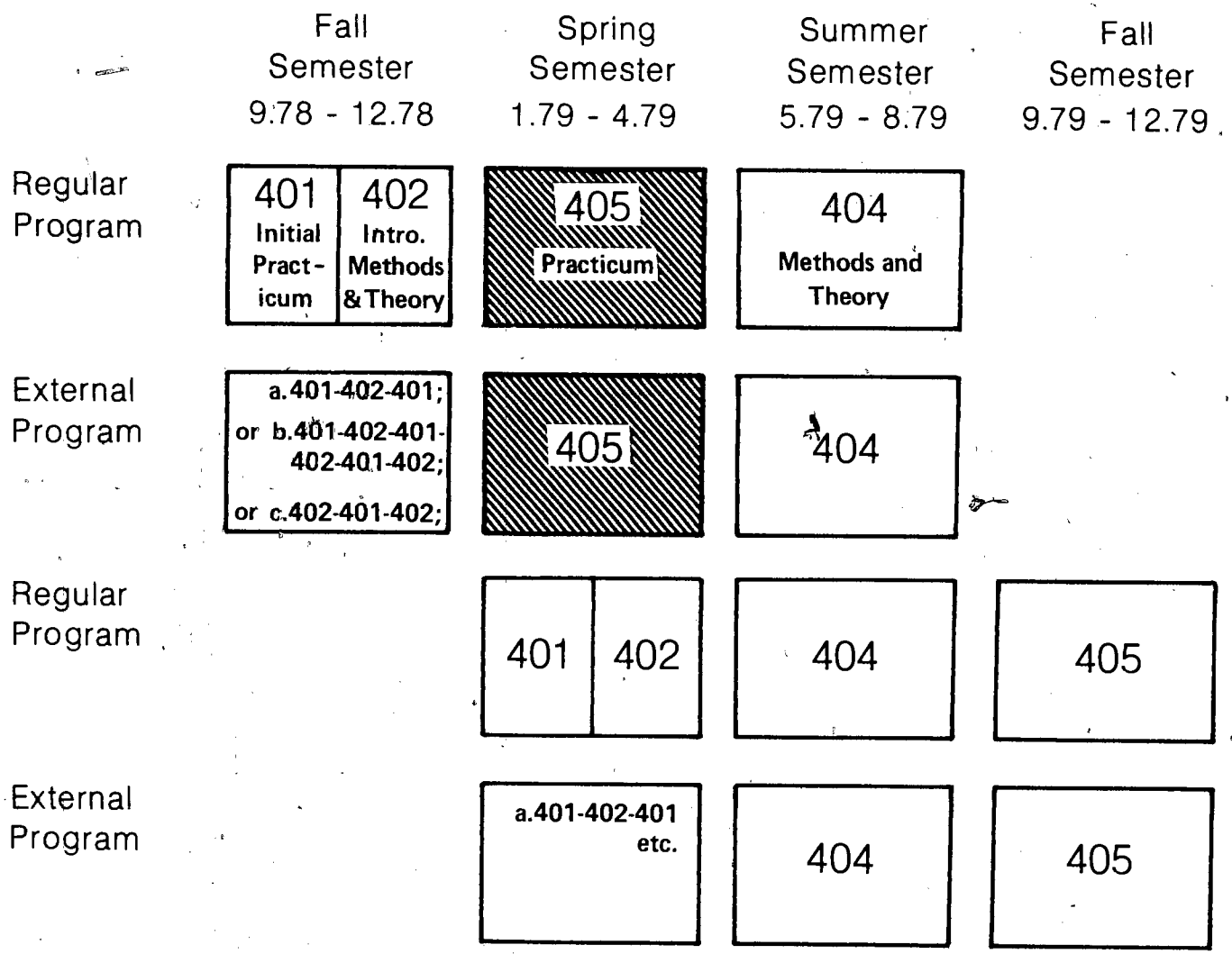


Figure 3. Simon Fraser University: Professional Development Program course sequence, 1978-79.

Over the next six weeks student-teachers are immersed gradually into the role of the teacher but, through the involvement of the School Associate, Faculty Associate and peers, are prevented from drowning (Birch, 1971, p. 3). Initial teaching activities may involve tutoring individual pupils, with a gradual expansion to small group work, isolated class lessons with the whole class and, ultimately, the preparation and presentation of a teaching sequence in a chosen curriculum area.

At the end of this course each student-teacher, School Associate and Faculty Associate meet to decide if the student-teacher seems likely to "be successful in ED. 402 and ED. 405 and ultimately in the teaching profession" (Denos, Note 1, p. 11). They will also discuss the degree to which the student-teacher has been able to meet the course objectives (reproduced in Appendix A), involving the ability to observe and critically discuss lessons, plan teaching and learning objectives for subsequent courses in the program.

Course ED. 402: Studies of educational theory and practice (8 credits). Student-teachers return to the campus for the second half of their first semester, to reflect on their classroom experiences, develop selected teaching skills and study a variety of teaching concepts. Program components for each student-teacher include program weekly previews, curriculum workshops (minimum two, maximum four), a study group, Faculty Associate seminars, an independent project, and noon-hour enrichment sessions examining aspects not covered in other sessions. The latter component is optional. Common objective (see Appendix A) are expected to be met by student-teachers successfully completing each curriculum workshop and each study group.

Courses ED. 401-2: Variation (15 credits). Student-teachers may undertake an integrated ED. 401-2 semester (see Figure 3) through an external program located in a number of British Columbian communities. Alternate weeks are spent teaching in schools and working in educational theory at university sites. It is claimed that this program is "characterized by . . . a close sense of community between student-teachers, School Associates and Faculty Associates" (Kaser-Cannon and Marsh, Note 6, p. 6).

Course ED. 404: Semester on campus (14-18 credits). As indicated by the statement of objectives (see Appendix A), this course is designed to ensure that the student-teacher has the opportunity to undertake those courses that will lead to the completion of all academic, professional and certification requirements. Courses may be selected that meet individual student-teacher needs, as assessed by the student-teacher, Program Director and Faculty Associate.

Course ED. 405: Teaching semester (15 credits). A complete semester of 12 or 13 weeks is spent in one or more schools. The experience is supervised jointly by a Faculty Associate and a School Associate who are responsible for formative and summative evaluations during and at the completion of the semester. The course is designed to provide student-teachers with a gradual immersion into the role of the teacher "slowly build(ing) up an endurance for teaching and progress(ing) from teaching one third of a load to handling a full teaching load" (Denos, Note 1, p. 15) in the final three or four weeks of the semester. The course replaces ED. 403, the original semester of teaching that carried no academic credit.

The formal course objectives are reproduced in Appendix A. Detailed discussions of the Spring 1979 ED. 405 course are to be found in Chapter 4.

Anxiety and Self-Concept of Pre-Service Teacher Education Students

Much of the expanded research in the last ten years into problems associated with the practicum has attempted to identify and measure desirable characteristics of teachers and student-teachers in order that the effectiveness of programs may be evaluated. Two related areas, anxiety and self-concept, have been recognised as important areas of concern to teacher educators and have been subjected to intense investigation. Research suggests that high levels of teaching anxiety or substantial decriments in self-concept may be harmful and undesirable. Many studies have identified areas of considerable strain, anxiety and tension among student-teachers often "characterised . . . by concerns with self" (Coates and Thoreson, 1976, p. 161). Many teacher educators are now placing greater emphasis on the personality and mental health of student-teachers than they are on the levels of knowledge and teaching methods. It has been suggested widely that measures of mental health and personality (for example, warmth, understanding, genuineness, poise and absence of hostility) will be incorporated into test batteries used for the selection of teacher education students (Clarke and Coutts, 1971).

Anxiety, Teachers and Student-Teachers

A number of studies have examined anxiety, "defined simply as a summary description of a variety of overt and covert actions" (Coates and Thoreson, 1976, p. 160) in teachers and student-teachers. This concept has been examined by Sinclair (1971) who claims that

> The stimulus situation which evokes the anxiety reaction is assumed to be such that the individual anticipates a strong threat to his self-esteem . . . anxiety acts as a cue to elicit

> both responses that are relevant . . . and irrelevant to the learning or performance task . . .. Task-relevant responses are observed in an increase in effort, concentration, and in procedural strategies previously found to facilitate learning and reduce anxiety. Task-irrelevant responses may be observed in the intrusion of thoughts concerning the consequences of failure, or self-depreciating ruminations and by ego-defensive avoidant responses designed to protect the individual from loss of esteem. These task-irrelevant responses compete with responses relevant to the task and typically have an interfering effect on learning and performance (pp. 97-98).

The author goes on to note that attempts to motivate the student-teacher by emphasising the importance of the performance may be harmful to all but low-anxiety student-teachers (Sinclair, 1971, p. 103), a claim that may have implications for the role performance of the university supervisor and cooperating teacher during the practicum.

In a general study of anxiety and educational achievement Gaudry and Spielberger (1971) concluded that as "high-anxious persons tend to be self-disparaging and lacking in self-confidence . . . (they are) more vulnerable to failure experiences and to negative evaluations by their parents, their teachers and their peers" (pp. 78 and 75). The authors also believed that universities and colleges should give high priority consideration to the early identification of highly anxious students in order to reverse a trend they had noted of high dropout rates and lower grades in this group (Gaudry and Spielberger, 1971, p. 79).

Coates and Thoreson (1976), in their review of early studies, made particular reference to surveys conducted by the National Education Association which revealed that large numbers of teachers believed they were working under considerable strain and tension, with possible negative and potentially serious effects on pupils (pp. 160-1). Parsons (1973b) reported that considerable evidence existed that anxiety could impair

performance in a variety of tasks. She therefore developed an instrument (see Chapter 5) "for the assessment of anxiety specific to the teaching situation" (p. 1). In an article criticizing the effectiveness of student-teaching programs, Purpel (1967) made reference to the frustrating and emotionally disturbing practica experienced by some student-teachers and made an appeal for a greater "understanding of the complexities and subtleties of student-teaching" (p. 20).

Many studies have attempted to identify changes in levels of anxiety experienced by student-teachers. Travers, Rabinowitz and Nemovicher (1952) employed a sample of 120 female elementary school student-teachers in a pretest-posttest sentence completion exercise. Although the authors claimed that the results after the one-semester experience showed no statistical differences, the study design did not allow an actual measurement of the degree of anxiety exhibited to be determined (Travers, et al., 1952, pp. 373-374). Iannaccone and Button (1964) detected a decline in measured anxiety in a group of elementary student-teachers, again on a self-report pretest-posttest design (p. 24). Effects of teaching practice were studied by Poole and Gaudry (1974) using an extensive battery of tests with 95 Diploma of Education students enrolled in their initial three-week practicum at Melbourne University, Australia. In addition to the "State-Trait Anxiety Inventory" (Spielberger, Gorsuch and Lushene, 1970) student-teachers completed questionnaires on punishment of children, teacher dogmatism, pupil control ideology, general aspects of teaching practice and career intentions. A statistically significant fall in reported anxiety occurred, the only significant change found from pretest to posttest ($p < .001$). In a pretest-posttest study, conducted with Simon

Fraser University students, Gregory (1976) reported significant declines in anxiety (Parsons Teaching Anxiety Scale, 1973 and 1973b) for student-teachers in their initial teaching experiences (N=83 and 205; $p < .01$) and final extensive practicum (N=66 and 68; $p < .05$) (p. 150).

Many attempts have been made to identify sources of anxiety in student-teaching. Walberg (1967b) and Walberg, et al. (1968) considered that reality shock and role conflict contributed to anxiety. They suggested that "neophytes suppress personality needs resulting (in) behaviour (that is) in conflict with new role demands" (1968, p. 85). In his "ABC of student teaching for cooperating teachers Palmer (1975) began with:

> A is for Anxiety. Direct initial efforts toward reducing the high anxiety level a student-teacher brings to the experience (p. 22).

It is widely recognised that student-teachers' induction to the practicum can be a period of role conflict, reality shock and extreme anxiety.

> They walk into their first classes with expectations of freeing the students from their bondage to inhumane teachers and moving them to erudite discussions of philosophy. When the students do not respond, the impact on the ego can range anywhere from disappointing to demolishing (Davis, 1977, p. 50).

Campbell and Williamson (1973), Diamonti (1977), Davis (1977), Leslie (1971), McDowell (1971), Oestreich (1974), Poole (1972), Poole and Gaudry (1974), Sorenson (1967), Sorenson and Halpert (1968), Stratton, Slattery and Meschter (1972), and Yee (1969) all reported that the cooperating teacher and student-teacher relationship was a potential or actual source of anxiety. Davis considered this relationship to be critical, as did Oestreich and McDowell. The latter claimed that the practicum "is almost deliberately made into a traumatic experience (and) . . . that the

'successful' student is one who is skillful in presenting the right image" (p. 67). This view is supported by Sorenson's 1967 study in which 158 student-teachers made 800 suggestions in response to the request, "List below the things you would tell your best friend to do in order to get a grade of 'A' from your present training teacher" (p. 174). 59% of respondents mentioned relationships with the school associate, proposing that that person's suggestions be followed without question, that one should "be original . . . in his way" (p. 174), but that one should not "be better than the training teacher" (p. 174). The cynicism and hostility was noted by Sorenson, who commented:

> It is apparent that in a great many cases student teaching is an anxiety-producing and hostility-provoking experience . . . it is my belief that the degree of anxiety engendered in student teaching is frequently excessive and detrimental (p. 176).

In a 1968 study of 248 elementary and secondary school student-teachers Sorenson and Halpert found that 70% reported psychological discomfort at the beginning of their (unspecified length of) practicum and 20% at the end. The authors identified five factors that were considered to be contributing to this discomfort:

(i) stress, exhibited by irritability and various physical discomforts;

(ii) uncertainty, characterized by feelings of personal inadequacy;

(iii) role disagreement, particularly with cooperating teachers, and reported by 60% of the sample;

(iv) personality differences perceived between the student-teachers and significant others; and

(v) dislike of students, including discipline problems (pp. 30-31).

On a more positive note, Poole (1972) using a sample of 523 Ontario student-teachers reported that a well-organised, supportive situation contributed to the success of the practicum. Special mention was made of good working relationships between the student-teachers and cooperating teachers (p. 162). The significant drop in anxiety reported by Poole and Gaudry (1974) was also attributed to the "experience of a well-organised supportive situation" (p. 262). Similar claims were made by Gregory (1976) who attributed the reported declines in teaching anxiety to the conditions under which the practica were conducted, making special reference to the high degree of support provided to student-teachers by the university's supervisors and cooperating teachers (pp. 177 and 182).

Diamonti (1977) emphasised that the burden faced by the cooperating teacher may be so great that student-teacher anxiety could be generated by the cooperating teacher's attempt to balance competing pressures and resolve role conflicts created by the presence of a student-teacher in the classroom. A group of 325 secondary student-teachers, responding to a 14-point questionnaire about problems in the practicum, added extensive comment at the end of the questionnaire specifying difficulties they had experienced with their cooperating teacher. The authors, Campbell and Williamson (1973) categorized the difficulties into five groups:

1. A wide difference in expectation levels for students.
2. A marked difference in commitment to teaching methodology (teacher-centered versus child-centered).
3. Insistence of cooperating teachers that classes be taught 'exactly as I usually teach them' (methodology, same content and same learning materials).
4. The student-teacher perceived himself as competing with, rather than cooperating with the cooperating teacher.

5. The cooperating teacher was perceived as unwilling to allow the student-teacher to take control of the class (Campbell and Williamson, 1973, p. 168).

Substantial research has centered on the related aspect of cooperating teacher preparation (Boyan and Copeland, 1974; Diamonti, 1977; Ellis, 1967; Oestreich, 1974; Purpel, 1967). Increased efforts have been made to overcome the "professional osmosis phenomenon" identified by Oestreich (1974, p. 335) in the hope that systematic procedures may be developed for the preparation of cooperating teachers. Once implemented, such procedures should reduce anxiety and facilitate a smooth development of the student-teacher's progression to competent novice teacher.

The teaching triad exists primarily for one of its members, the student-teacher, and can assist this member to survive a difficult and threatening period of preparation. Yet, some facets of the triad, discussed earlier, have been shown to be anxiety producing. Yee (1969) suggested that the triad degenerated over time. Campbell and Williamson (1973), Cohen (1969), Davis and Davis (1977), and Overbeck and Quisenberry (1976) all expressed concern that a high level of cooperation and understanding be developed by members of the triad in order to offset or reduce conflict and anxiety for the practicum's participants. The triad could fail in its supportive attempts if student-teachers discovered that "the school speaks with a voice quite different from that . . . used in College or University" (Creber, 1972, p. 163).

Morrison and McIntyre (1973), Parry (1972), Purpel (1967), The James Report (Teacher Education and Training, 1972) and Tittle (1974) are representative of the large number of reports and studies that have highlighted role conflicts and inadequate preparation of practicum members.

Tittle (1974) reported many problems arising from tension between the school and the university (p. 14), an aspect that Morrison and McIntyre (1973) also examined in detail. The latter expressed particular concern that the evaluation procedures could be traumatic for the student-teachers.

> The lack of preparation (of university supervisors) seems particularly foolhardy when the whole of the complex task of teaching is to be evaluated in terms of a single mark . . . it is almost unknown for (university supervisors) to be given any systematic training in . . . observational skills (pp. 54, 56).

Eye (1974) concurred and reported that conflicts over evaluation were frequent. Mott (1976) also noted that evaluation often was seen to be "undesirable and frustrating" (p. 6). In addition, Eye identified student-teacher anxiety caused by conflicting university/college and school expectations, an aspect reported earlier by Ahlering (1963).

It can be seen that the existence of anxiety in the practicum has been clearly established, that it is an important factor and that its sources are multitudinal. Table 2 summarises many of these sources, and identifies studies that have reported them.

Concern has been expressed that high levels of anxiety may impair performances with resultant detrimental effects upon pupils. Although Parsons (1971) did not find a significant relationship between anxiety and teaching competence as rated by supervisors, she devised an instrument to measure teaching-specific anxiety. Other studies have indicated relationships between anxiety and teacher behaviour. Kracht and Casey (1968) correlated anxiety and teacher warmth; Clark (1972) reported that pupils were given lower grades by student-teachers exhibiting high anxiety levels; and pupil ratings of teacher effectiveness were reported to favour low anxiety

Table 2: Some Sources of Anxiety in the Practicum

Source	Authors
1. Pupil control and discipline: including restlessness, student relationships.	Ahlering (1963); Anderson (1960); Poole and Gaudry (1974); Thompson (1963); Travers, et al. (1953); Wey (1951).
2. Individual differences among pupils	Poole and Gaudry (1974); Thompson (1963); Wey (1951).
3. Ability to motivate, stimulate pupils.	Ahlering (1963); Petrusich (1966); Wey (1951).
4. Evaluation of pupils.	Ahlering (1963); Campbell and Williamson (1974); Clark (1972); Mattson (1974).
5. Lesson planning and presentation; timing, learning activities; enrichment activities.	Campbell and Williamson (1974); Davis (1976); Petrusich (1966); Sorenson and Halpert (1968).
6. Knowledge levels	Campbell and Williamson (1974); Erickson and Rudd (1967).
7. Practical/physical problems: school equipment, materials physical conditions.	Campbell and Williamson (1974); Sorenson and Halpert (1968); Wey (1951).
8. Personal adequacy: poise, maintenance of standards, ability to promote learning.	Fuller (1969); Poole and Gaudry (1974); Thompson (1963).
9. Personal adjustment: acceptability to pupils, orientation to school and its services.	Anderson (1960); Campbell and Williamson (1974); Fuller (1969); Thompson (1963); Travers, et al. (1953); Wey (1951).
10. Relationships within the triad and dyad.	Davis (1976); Diamonti (1977); Erickson and Rudd (1967); Eye (1974); Gregory (1976); Gregory and Allen (1978); Kazlov (1976); Leslie (1971); Morrison and McIntyre (1973); Oestreich (1974); Sorenson and Halpert (1968); Thompson (1963); Tittle (1974); Walberg (1967); Yee (1968).
11. Speed of transition into teaching.	Coulter (1974); Davis (1976); Gregory (1976); Gregory and Allen (1978); Lortie (1975).
12. Evaluation of teaching practice.	Erickson and Rudd (1967); Eye (1974); Kazlov (1976); Morrison and McIntyre (1973); Sorenson (1966); Thompson (1963).

teachers (Mattson, 1974). Petrusich (1966) discovered no statistically significant correlation between student-teacher anxiety and classroom behaviour but noted that highly anxious teachers tended to use less 'chatter', gave less verbal support and exhibited more hostile behaviour and speech patterns. "These studies suggest that, at some level, anxiety in classroom teachers may become detrimental both to the teacher themselves and to their pupils . . . and may be correlated with inappropriate student and teacher performance" (Coates and Thoreson, 1976, pp. 169-170).

In an attempt to prevent potentially deleterious results, substantial attention has been given to aspects of the practicum that appear to promote anxiety. However, it has been suggested that some teacher anxieties may be acceptable and that the goal should be

> to teach teachers the skills of managing personal stress and tension that might otherwise interfere with effective teaching (rather than) . . . desensitize to the point of becoming inactive or tolerating unreasonable or unhealthy environments (Coates and Thoreson, 1976, p. 189).

There appears to be no doubt that student-teachers need and appreciate skilled, concerned and professional help. Lantz (1964) suggested that as both quantitative and qualitative change occurred during a practicum, institutions must place student-teachers into schools with great care (p. 203) and be prepared to monitor performances and supply close support during the practicum.

Self-Concept and Student Teachers

Relevance to teacher education. Preservice programs in teacher training have blossomed profusely in the last decade, matched only by the diversity of design detail they have contained. Teacher educators have increasingly turned their attention to the search for criteria by which

programs may be evaluated, in the hope that the effectiveness of programs may be gauged. Elsworth and Coulter (1977) have conceptualized "teacher education as a socialization process in which the student-teacher moves from a lay sub-culture into the professional teacher sub-culture" (p. 1) with attendant changes in attitudes, values, commitments, skills and knowledge. Ultimately the process leads to changes in "self-esteem and other aspects of self-view" (Elsworth and Coulter, 1977, p. 1). They have suggested that this provides the teacher educator with the opportunity to evaluate a program of teacher training by "establishing the desired direction of change on each of these facets and of determining whether it has been attained" (p. 1).

Self-concept has been seen by many authors to be an important and central concept. Fitts identified self-concept by asking the question "Is there some type of vital and relevant data about a person that supercedes other things in importance to the individual and thereby expresses his true raison d'etre?" (Fitts, 1971, p. 2). Combs and Snygg believed that "The key to understanding behaviour, whether it be our own or other people's, lies in large measure in the skill we develop in the exploration and understanding of people's perceptions" (1959, p. 464). Notions of self-consistency and unity were explored by Lecky (1951) and Coopersmith (1967) who believed that personal internal conflict could lead to a self-perceived state of discord and discomfort. Carl Rogers introduced a notion of desirable flexibility that allowed a person to adapt to changing circumstances yet allowed that person to continue to function as a social being (Rogers, 1969).

Specific definitions of self-concept (apparently indistinguishable from self-esteem, self-image, self-perception and self-evaluation) have included Coopersmith's notion of "evaluative attitudes toward the self" (1967, p. 2), Epstein's construct of self-theory that "the individual has unwittingly constructed about himself an experiencing,functioning individual and . . . is part of a broader theory which he holds with respect to his entire range of significant experience" (1973, p. 407) and a definition by Combs, Blume, Newman and Wass (1974) that self-concept is "the organisation of ways of seeing self" (p. 17). For the purposes of this study self-concept will be defined "as a complex and dynamic system of beliefs which an individual holds true about himself, each belief with a corresponding value" (Purkey, 1970, p. 7).

One facet of self-concept, professional self-concept, has been examined closely in the last decade. Professional self-concept is seen by some researchers as one of a group of specific concepts that contribute to a multidimensional self-concept, as opposed to a global or unidimensional self-concept (Torshen, Note 4), and refers to individuals' perceptions of themselves in a professional role.

Such research trends have been applauded by a number of authors, Coombs, et al. (1974) have claimed that

> Of all the perceptions existing for an individual none are so important as those he has about himself . . .. It represents the most important single influence affecting an individual's behaviour . . .. What he believes about himself affects every aspect of his life (pp. 16-17)

They emphasise that

> the maladjusted persons . . . characteristically see themselves as unliked, unacceptable, unable. On the other hand, adequate,

> effective, efficient, self-actualizing, well adjusted citizens are persons whose self-concepts are highly positive. They perceive themselves to be persons who are liked, wanted, acceptable, able. They see themselves as belonging, responsible, effective personalities, and, because they see themselves so, they behave so. Teachers too, are affected by the adequacy of their self-concepts (Combs, et al., 1974, p. 17).

Edgar (1974) claimed that a person's control over self-actualization was not just dependent on skills and abilities but also on that person's self-concept, "the extent to which he sees himself as effective, competent, powerful instead of powerless" (p. 380). A similar view was held by Dumas (1969) who wrote that:

> we must . . . recognise that damage to one's image of one's self makes him less able to do well, while improvement of the self-image makes one substantially more likely to do well. Success . . . breeds success . . .. Failure . . . likewise breeds failure (p. 275).

Elsworth and Coulter (1977) saw particular promise in the use of measured professional self-concept as one criterion for attempting to establish the degree of effectiveness of preservice teaching programs. Coulter (1974) considered that although self-concept was only one of many important possible outcomes of the practicum, "teacher educators should be concerned if the student teacher's professional self-image is a little 'bruised' by initial experiences in the classroom as self-image is related to performance" (p. 149). The work of Garvey (1970) supported this contention to some degree. She administered the Tennessee Self-Concept Scale (Fitts, 1965) to 150 college seniors who were to undertake a practicum of 10.5 weeks. Supervisors were asked to rate the student-teachers as "high" or "low" allowing a test for significant differences between these two groups on the 29-item self-concept scale. She found that the student-teachers "rated high in student teaching tend to score toward the desirable

extremes of these scales (less conflict, greater certainty and consistency); those rated low tend in the opposite direction" (Garvey, 1970, p. 359). She concluded "that success in student teaching is affected, but not necessarily determined, by a positive view of oneself, lack of confusion in self-perception and good adjustment" (p. 360). Purkey (1970) and Hamachek (1971) also claimed that performance and self-concept were interdependent factors, and "similar correlational evidence has been reported for other professional workers . . . and experienced teachers" (Coulter, 1974, p. 149).

As argued by Elsworth and Coulter (1977) it was felt to be appropriate that student-teacher aspirations related to "professional behaviour which can be intuitively or empirically related to pupil growth" (p. 4) should be able to be fulfilled during the course of teacher training. Further, "because change in self-perception is an important aspect of professional socialization, it should be measured in order that programs, or aspects of programs, which depreciate self-view might be reviewed" (pp. 4-5).

Self-Concept and the Practicum

A number of studies have been undertaken in attempts to measure changes in self-perception (personal and/or professional) as student-teachers became socialized into the role of the teacher.

An early study in this area was undertaken by Nagle (1959) who examined the effects of student teaching patterns upon the professional attitudes of student-teachers engaged in a full-time practicum and a part-time practicum. He devised a scale to provide attitude measures towards pupils, teachers, teaching and school community relationships on a pretest-posttest basis. Although no data analysis details were reported, the author claimed that

> part-time student-teachers appeared to have significantly poorer attitudes toward pupils . . . (and that scores for full time student-teachers) had become significantly better ($p < .05$) than the part-time student teaching group on each of the four scales (Nagle, 1959, p. 357).

He attributed the differences to the type of student teaching experience, and emphasised the value of an "integrated program of teaching methods and materials" (p. 357).

In 1964 Lantz published a study of self-concept changes reported by 36 women elementary majors who had undertaken a practicum over two terms. He found that the student-teachers' concept of the ideal teacher (that is, the teacher the student-teacher would like to be) was tempered by the experience. "Student teachers felt more idealistic than realistic before student teaching" (p. 202).

The following year Newsome, Gentry and Stephens (1965) employed their own 100-item scale to "measure the logical consistency of ideas about education" (p. 321) held by 62 elementary and 68 secondary senior student teachers. The sample was asked to sort the 100 items into ten piles "from 'most like' to 'least like' the ideal teacher" (p. 321), before and after a practicum. The authors reported statistically significant losses ($p < .05$) across the whole sample and for the Social Studies and English sub-samples. Newsome et al. considered that the problems (unspecified) faced by English and Social Studies secondary teachers were sufficient reason "to suspect that their ideas about education are more frequently and more seriously challenged than are those of the elementary school teacher" (p. 323).

A key series of studies was undertaken by Walberg, in conjunction with other researchers, during the mid-1960's (Walberg, 1967a; Walberg, 1967b;

Walberg, 1968; Walberg et al., 1968). In the first of these studies Walberg (1967a) used a sample of 1489 student-teachers. They were asked to complete two pretest-posttest six-point, bi-polar adjectival scales on the professional concepts "Myself as a teacher" and "Best-liked teacher" (p. 15), the latter concept being comparable to a measure of ideal professional self-concept. He identified a number of factors within the scales and found that the sample had a lower score after the practicum on Teacher Role. He also reported apparent antitheses between the effects of college education courses and practicum experiences for women student-teachers, leading him to the conclusion that "the initial teaching experience is likely to be conflict-laden and anxiety-provoking" (p. 20).

Walberg's second study (1967b) used a 26-item, seven-point semantic differential containing seven factors to measure the professional concept "Myself as a teacher" in 1009 women student-teachers. He claimed that the drop in results obtained implied "cognitive and emotional defensiveness" (p. 85) by the student-teachers. The development of an emotional facade, presented to the pupils, suggested the presence of anxiety and elements of role conflict between self and self as a teacher. He believed that these findings were consistent with a theory that "states that neophytes suppress personality needs and the resulting behaviour is in conflict with new role demands" (p. 85). He surmised that this "role conflict may also account for the high attrition of teachers during their first years in the profession" (p. 85).

A further study (Walberg et al., 1968) compared the changes that occurred in the reported professional self-concept of two groups of student-teachers before and after a practicum. Sixty-four student-teachers completed a 14-week block of teaching. During the same

semester a second group of 77 student-teachers was enrolled in a composite college course which had as a component regular periods (length unspecified) of one-to-one tutoring of pupils. The researchers administered two 26-item, seven-point semantic differentials ("Myself as a teacher") containing a total of 10 factors, and a modified battery of 35 items from the MTAI. The student-teachers in the study scored significantly lower ($p < .05$) at posttest on the factors "neat, pedagogical, identified, pupil-centered, and egalitarian, and higher on expressive, narcissistic, controlling and puritanical . . . (while the student)-tutors scored significantly lower on neat, stable , good, controlling and authoritarian, and higher on pupil-centered" (p. 286). Walberg et al. emphasised the contrast between the student-tutors who became pupil-centered and the student-teachers who became more controlling and referred to other research (Walberg, 1968) which indicated that

> the beginning teacher, in conforming to the institutional role of the teacher, learns that she must maintain a status gap between herself and the children . . . she must learn to keep her proper professional distance. Thus, the declines in aspects of professional self-concept found here and in the previous studies can also be interpreted psychologically as a personality-role conflict (Walberg et al., 1968, p. 288).

As indicated above, Walberg (1968) undertook a further study of role conflict suffered by student-teachers during a practicum which "brings about feelings of abnegation and depreciation of self" (p. 43) as a person (self-concept) and as a teacher (professional self-concept). A group of 77 student-teachers were tested three weeks before teaching and again after 12 weeks of teaching using a 26-item, six-point, bi-polar semantic differential for the concept "Myself as teacher". It was found that the student-teachers rated themselves higher on all eight unfavourable items

and lower on all eight favourable items after the practicum (p. 46) indicating, once again, that serious decriments in professional self-concept appeared to be associated with a practicum experience. Specific changes revealed a

> sullied self-concept . . . self-depreciation on intellectual mastery and on the ability to present ideas effectively . . . a dejected alienation . . . less understanding of children . . . lower expectations of pupil behaviour and lower aspiration for self in the role of teacher . . . (and) less rapport with the class (p. 46).

In 1968 Wright and Tuska published a longitudinal study of 508 women, incorporating measures of professional self-concept ("Me as a teacher") and self-concept ("Myself") (p. 255) from a semantic differential. They reported that "the lower school woman has an improved role (professional self-concept) conception after training" (p. 278), but that the high school woman "feels worse in all areas . . . less happy and understanding, less confident, active, and perceptive; less inspiring; . . . the middle school student-teacher also feels less confident, demanding, inspiring and happy" (pp. 278-279). The authors attribute this decline chiefly to the intellectual threats posed by the university supervisor (p. 279) and the unrealistic expectations of student-teachers that they will have "ample support, few lessons to prepare, small classes . . . (and) short hours" (p. 258). In concluding they made an important reference to the difference between actual ("self") and ideal ("role") professional self-concept (now generally known as a "discrepancy score" - see Coulter and Elsworth, Note 5, p. 1).

> The changes in the relationship between self and role conception among student-teachers deserves careful consideration. The half-real exposure to reality which practice

> teaching represents is bound to drag dreams down to earth, to pull fantasy toward reality . . .. Were no differences in favor of role to remain, important reasons for becoming a teacher would be gone . . . Is disillusion inevitable? (pp. 286-287).

An aspect of student-teachers' personality, dogmatism, and the degree of change during a 10-week practicum was studied by Johnson (1969). Procedural weaknesses reduced the value of the study though it may be noted that the study of 80 student-teachers indicated a shift in dogmatism by the end of the 10 weeks toward the cooperating teacher's dogmatism score, significant at the $p < .01$ level.

By the end of 1968, evidence from a range of studies appeared to indicate that practicum experiences must be associated with a lowering of student-teachers' actual professional self-concept and actual self-concept. Wright and Tuska's (1968) proposition that disillusionment was inevitable appeared to be a reality. However, in the next four years Dumas (1969) and Smith and Adams (1972) reported studies that somewhat muddied the self-concept-practicum waters.

Using a one-group, pretest-posttest design (N=94) Dumas administered the Fiedler Interpersonal Perception Scale (Fiedler, 1958), a 6-point, 24-item, bi-polar semantic differential, to student-teachers engaged in a half-a-day-per-day 18-week practicum. Although 27% of the sample reported lowered self-concept at the end of the practicum, 71% reported increased self-concept "resulting in a t value significant at the $p < .01$ level and indicating that, for the sample as a whole, the student-teaching experience resulted in more favorable self-perceptions" (p. 277). Two aspects of this study must be emphasised; firstly, the student-teachers were <u>not</u> engaged in full-time teaching and may have been able to

escape some of the stress reported to be associated with such a commitment; secondly, the author reported a significant correlation ($p < .05$) between the presence of the cooperating teacher for the majority of the time and improvement in self-concept by student-teachers (p. 278). The Smith and Adams study (1972) measured self-concept and professional self-concept changes in 260 student-teachers. They, too, reported improved self-concept after the practicum in 70% of the sample, with decreased self-concept in 26% of the student-teachers.

In conjunction with Elsworth, Coulter developed semantic differentials to measure "Myself", "Myself as I would like to be" and "Me as a teacher" (Coulter, 1974, p. 150) based on the scales used by Wright and Tuska (1968) and Walberg (1967a, 1967b). The scales were administered on a pretest-posttest basis to 50 Diploma of Education university student-teachers undertaking a three-week practicum. Coulter reported no changes in self-concept (actual or ideal) but found significant declines in actual professional self-concept. However he noted that the shifts were small, the practicum short and the sample limited. He suggested that some decrease in actual professional self-concept was associated with in-appropriate student placements (p. 158). A subsequent study (Coulter, 1976) reversed the negative shift, and gave support to his 1974 conclusions.

Using the Elsworth and Coulter scales (Coulter, 1974) Gregory undertook an extensive study of student-teachers in the Simon Fraser University Professional Development Program (Gregory, 1976; Gregory and Allen, 1978). The sample sizes, matched pretest and posttest, ranged from 53 to 204 student-teachers undertaking an initial six-weeks practicum, with 66 student-teachers undertaking their final 13-week practicum. Gregory reported significant

increases ($p < .05$) by student-teachers in the major practicum in professional self-concept on six of the seven dimensions, and in self-concept ("Myself") on five of seven dimensions. No changes were reported in ideal self-concept ("Myself as I would like to be") or ideal professional self-concept ("The teacher I would like to be"). However, the picture was confused for student-teachers undertaking the shorter practicum. Falls in six of the seven dimensions that made up ideal professional self-concept were reported by students who worked in the combined ED. 401/ ED. 402 practicum that alternated weekly with non school-based education courses. Student-teachers enrolled in the practicum block of six-weeks showed rises in actual professional self-concept ("Myself as a Teacher") and actual self-concept ("Myself") on three of the seven and two of the seven dimensions of each scale respectively. Gregory attributed the absence of any decline in professional self-concept and the significant rises in the majority of the dimensions in this scale, as exhibited by student-teachers in the major practicum, to a number of features.

> There is the gradual induction into teaching, the sustained period of teaching practice, the efforts to train cooperating teachers in supervising, the special role of the university supervisor and such supportive characteristics as the use of student teams in the initial practicum (Gregory, 1976, pp. 177-178).

It seems clear that the measurement of professional self-concept and self-concept is a promising development in attempts to find suitable evaluative criteria for teacher education programs. It would also appear that there is now some doubt that the practicum inevitably damages the professional and personal self-concepts of student-teachers. Recent research has suggested that changes in aspects of self-concept "are a

function of how the individual reacts to given conditions of teaching practice" (Gregory, 1976, p. 100). Further, if the factors which have an impact on student-teachers engaged in a practicum "can be reliably identified and dealt with in planning, the value of the practicum may be improved substantially" (Gregory and Allen, 1978, p. 54). As these factors may include as diverse a range as the role of the cooperating teacher and the university supervisor, support for the student-teacher, length of the experience, the continuity of the experience, the nature of the placement, program design, and prior experiences, no one specific program is likely to be identified as the ideal model.

As the existence and sources of anxiety in student-teachers have been closely linked to aspects of self-concept, it has been considered potentially rewarding to consider both concepts in this study. This link has also been suggested by various researchers. Lantz (1964) recommended that student-teachers be placed in "non-threatening situations where their self-concepts and concepts of others may be able to change" (p. 203). Walberg (1967a and 1967b) identified elements of anxiety and role-conflict associated with concepts of self and self as a teacher. His further studies confirmed this link (Walberg, 1968; Walberg et al., 1968). Wright and Tuska (1968) reported "anxious and guilty" (p. 267) feelings in student-teachers and associated such feelings with teaching behaviour and images of self as the student-teachers' "role conceptions change(d) from raw imagination to half-baked experience" (p. 276). Garvey (1970) suggested that lowered conflict in student-teachers was related to greater certainty, consistency and "a positive view of oneself" (p. 360).

Key works by Sinclair (1971) and Gaudry and Spielberger (1971) established a strong connection between the two concepts. They claimed that not only do persons who report to be highly anxious tend to be self-disparaging, but also appear to be more vulnerable to failure (p. 75). Finally, the studies of Coates and Thoreson (1976) and Gregory (1976) have indicated a relationship between lowered anxiety and increased self-concept.

The Length of the Practicum

The central concern of this study is to uncover evidence that may be employed by program planners attempting to make rational decisions concerning the length of a practicum. This appears to be a particularly important consideration in the design of practica in which senior student-teachers try out the role of a full-time classroom teacher.

Although Channon (1971) and the OECD (Eggleston, 1974) have reported a trend to longer practica, such decisions appear to have been based upon institutional calendar, timetable and other overall structural considerations, rather than educational theory and research. Oestreich (1974) recognised this problem and emphasised the arbitrariness of decision and lack of research and logic:

> If the length of time is indeed a valid consideration, it ought surely to be based on something other than an arbitrary hunch or upon a convenient way of scheduling college students (p. 335).

Few studies have attempted to measure changes in a specified concept or concepts over varying lengths of practica. A recent attempt was made by Davis (1976). He measured and compared the development of teaching sophistication and professional enhancement in two groups of 15 students over eight and 16 weeks respectively. He concluded that there were no significant differences between the two groups. Unfortunately no pretest matching was reported, and the study may have failed to take sufficient account of the different backgrounds of the two groups, as the author reported that:

> When the eight-week student-teacher began her experience, she had already completed two or three methods courses,

> while the sixteen-week student had completed only half of those same method courses (p. 33).

It is worth noting that one of the author's hypotheses for the lack of significant differences suggested that the 16-week practicum was the eight-week experience stretched to cover sixteen weeks, "without much apparent change occurring in the nature of the experience" (p. 33).

His suggestion that data be collected at different times during the practicum is worthy of consideration, particularly if undertaken with the same or matched samples. It appears logical to study the patterns of change experienced by student-teachers during varying lengths of practica. Such studies may well identify periods of crisis when anxiety is abnormally high and potentially damaging, or when professional self-concept suffers significant decriments. The implication for the length of practica is clear - it may be unwise to conclude a practicum at a time when the student-teacher feels professionally inadequate or a failure, if evidence suggests that such feelings may be overcome with further experience.

A review of anxiety and self-concept studies has revealed a diversity of results, lengths of practica, types of practica and prior student-teaching experiences. Early studies pointed to the inevitability of lowered professional and self-concepts, and identified highly anxiety-provoking situations. Although the practica ranged in length from half-a-day per day for 14 weeks (Walberg et al., 1968) to a full semester of full-time teaching (Nagle, 1959; Travers et al., 1952; Walberg et al., 1968), the varying backgrounds of student-teachers and different study designs make meaningful comparisons impossible. It is interesting to note that Walberg (1967a) did give passing consideration to the length of the practicum.

> Supervised experiences in observing, assisting, and teaching in the classroom should increase their (student-teachers) ability to relate to children. This reasoning leads to the hypothesis that the more education and the more experiences with children a student (teacher) has, the higher his self-conception on affective and cognitive factors in his teaching personality (p. 15).

When later studies indicated that decriments in self-concept could be overcome (Dumas, 1969; Smith and Adams, 1972) researchers tended to attribute this finding to a number of factors, including better preparation of supervisors and strong supportive services for the student-teachers.

The work of Gregory (1976) however, suggested strongly that the length of the practicum may be a critical factor. A group of student-teachers enrolled in a six-week practicum completed the Elsworth-Coulter semantic differentials, professional self-concept scales (Elsworth-Coulter, 1977), at the beginning, mid-point and end of the practica. Of the seven factors on the actual professional self-concept ("Myself as a Teacher") scale, five had declined slightly (one significantly: $p < .05$) by week three. All seven factors reported higher means at the end of the practicum (week six) than at week three. Although not reported in the study, the total scale mean scores were identical at weeks one and six. This suggested that decriments suffered during the practicum were able to be overcome by week six, highlighting the need to study further the optimum length of various practica formats. The results of a study reported by Poole and Gaudry (1974) may have been reversed had the supportive mechanisms remained unchanged but the length of each practicum increased beyond the reported three weeks, as found by Coulter (1976). Gregory (1976) also compared the self-concept and anxiety scores of student-teachers completing the six-weeks and 13-weeks programs. Anxiety fell for all groups ($p < .05$).

It was concluded that

> The fact that the increase in both professional and personal self-concept (actual) was more pronounced for students in the longer Education 405 program tends to support the idea that, given adequate supportive mechanisms and a gradual introduction to teaching, the length of time in schools may be one of the most important elements in changes in students' self-concept (Gregory and Allen, 1978, p. 60).

CHAPTER 3

Hypotheses

Statements of the Hypotheses

A pretest was administered to the ED. 405 student-teacher sample at the commencement of their practicum (week 0). A posttest round was administered to groups one, two, three and four at the completion of weeks three, six, nine and 12 of the practicum respectively.

Hypothesis 1: Teaching anxiety. It is hypothesized that teaching anxiety, as measured by the Parsons Teaching Anxiety Scale will:

(a) decline from pretest to week 12;

(b) decline from pretest to week 9;

(c) not change between any other testing periods.

Hypothesis 2: Professional self-concept actual. It is hypothesized that professional self-concept, as measured by the Elsworth-Coulter semantic differential scale "Myself as a teacher", for each of the seven dimensions (creativity, orderliness, warmth-supportiveness, satisfaction, clarity, energy-enthusiasm, and non-conformity) and the total scale will:

(a) increase from pretest to week 12;

(b) not change between any other testing periods.

Hypothesis 3: Professional self-concept ideal. It is hypothesized that professional self-concept ideal, as measured by the Elsworth-Coulter semantic differential scale "The teacher I would like to be". for each of the seven dimensions and the total scale will:

(a) not change from pretest to week 12;

(b) not change between any other testing periods.

Hypothesis 4: Professional self-concept discrepancy scores. It is

hypothesized that the professional self-concept discrepancy scores (the difference between actual and ideal professional self-concept, as measured by the Elsworth-Coulter semantic differentials) for each of the seven dimensions and the total scores will:

(a) decline from pretest to week 12;

(b) not change between any other testing periods.

Hypothesis 5: Self-concept actual. It is hypothesized that self-concept actual, as measured by the Elsworth-Coulter semantic differential scale "Myself", for each of the seven dimensions and the total scale will:

(a) increase from pretest to week 12;

(b) not change between any other testing periods.

Hypothesis 6: Self-concept-ideal. It is hypothesized that self-concept ideal, as measured by the Elsworth-Coulter semantic differential "Myself as I would like to be", for each of the seven dimensions and the total scale will:

(a) not change from pretest to week 12;

(b) not change between any other testing periods.

Hypothesis 7: Self-concept discrepancy scores. It is hypothesized that the self-concept discrepancy scores (the difference between actual and ideal self-concept, as measured by the Elsworth-Coulter semantic differentials) for each of the seven dimensions and the total scale will:

(a) decline from pretest to week 12;

(b) not change between any other testing periods.

All hypotheses will be tested by analyses of covariance (ANCOVA - post-test group comparisons) and, where appropriate, by Tukey HSD and t tests (matched groups at pretest and posttest). Differences between scores will be considered to be statistically significant at the $< .05$ level of confidence.

Rationale

As indicated in the previous chapter, few studies have been reported that attempted to measure specific changes experienced by student-teachers as the practicum progressed. Davis (1976) measured the development of teaching sophistication and professional enhancement over 16 weeks, using two small, unmatched groups of student-teachers. Pretest and posttest measures taken at weeks one and eight, and one and 16, indicated no significant differences. Gregory (1976) studied changes in aspects of self-concept and teaching anxiety in groups of student-teachers undertaking different lengths of initial and final practica. He also measured professional self-concept at the mid-point of a six-weeks practicum and reported few significant changes. However, "the sample of students for this extra set of tests was small" (Gregory and Allen, 1978, p. 60). No attempt was made to relate this group's pretest and posttest scores to the major sample's scores. The published data revealed that the sub-group had lower posttest scores and, with one exception, higher pretest scores than the major sample.

The studies reported in the review of the literature cover such a diverse array of teaching situations and practicum programs, and employ many different study designs and instruments that attempts to draw firm summary conclusions would be hazardous. It would appear to be unwise and unjustified to create specific hypotheses related to changes during the practicum that draw upon an overall summary.

Teaching Anxiety

In light of the Gregory (1976) study in which all groups reported

significant declines in teaching anxiety by the end of the practica, it appears to be justified to hypothesize an overall fall in student-teachers' anxiety from pretest to week 12. It should also be noted that although there is no evidence to suggest that the characteristics of the current study's sample are comparable to the sample in the Gregory (1976) study, the EDUC405 program has not been amended substantially since the spring semester of 1976. Reductions in teaching anxiety have also been reported by Iannacone and Button (1964), Poole (1972), Poole and Gaudry (1974), and Sorenson and Halpert (1968) in pretest-posttest studies undertaken during varying lengths of practica.

The specific hypothesis that teaching anxiety will fall significantly by week nine is based on known program factors. An interim evaluation will be completed for all student-teachers by the end of week seven. Student-teachers who are considered unable to meet the goals of the program will be recommended for withdrawal. Student-teachers who continue in the program after week seven may be expected to feel a sense of progress and a measure of success. By the end of week nine, student-teachers also will have completed a substantial period of full-time classroom teaching.

Professional Self-Concept and Self-Concept

The literature reveals a range of conflicting findings, though recent studies suggest that aspects of professional self-concept and self-concept need not inevitably decline during a practicum experience. The recent trend appears to be associated with practica that incorporate a gradual introduction to teaching, supervision training and role clarification for cooperating teachers and university supervisors, extended time in the classrooms, and positive support for student-teachers (Coulter, 1976; Dumas, 1969;

Gregory, 1976; Gregory and Allen, 1978). The Simon Fraser University Professional Development Program appears to possess all these attributes.

Hypothesized increases in professional self-concept actual and self-concept actual are based specifically on the Gregory (1976) study, which reported significant increases on 12 of the 14 dimensions on the Elsworth-Coulter semantic differential scales. Similar findings have been reported by Coulter (1976), Dumas (1969) and Smith and Adams (1972), though declines were reported widely in earlier studies. Again, it appears likely that the program attributes, outlined above, were a contributory factor in the various self-concept increases.

There is general agreement that professional self-concept ideal and self-concept ideal are resistant to significant change. This has been reported by Coulter (1974; 1976), Gregory (1976) and Walberg (1967b) who used similar scales to measure these concepts. The hypotheses that discrepancy scores will decline significantly from pretest to week 12 reflect anticipated rises in actual professional self-concept and actual self-concept of a magnitude that will be sufficient to overcome slight, but insignificant, falls in ideal professional self-concept and ideal self-concept, as reported by Coulter (1976) and Gregory (1976).

CHAPTER 4

Methods and Procedures

Subjects

The subjects in this study were volunteers from the Simon Fraser University Professional Development Program. All student-teachers with confirmed placements in the ED. 405 course, scheduled for the Spring 1979 semester (see Figure 3) were invited to participate, as outlined in Appendix C. Letters were posted to individual student-teachers addressed to each student-teacher's school address, care of the School Associate, to reach the school before the first day of the practicum. The population at December 29th, 1978 numbered 369 but late withdrawals and changes to placements reduced that population to 354 at January 3rd, 1979. 219 student-teachers agreed to participate by returning their pretest questionnaires. Three incomplete returns and five late returns were eliminated reducing the final pretest sample to 211. This represented 59.6% of the population.

Comparisons between the population and the pretest sample on available characteristics are reported in Table 3. A statistical analysis revealed no significant differences between the population and pretest sample for sex, teaching level and location (Chi square, 4x2 contingency table, $\chi^2 = 2.26$; @ $p < .05$, the null hypothesis may be rejected if $\chi^2 = 7.815$, df = 3). Additional characteristics of the pretest sample are reported in Appendix B.

Table 3: ED. 405 Population and Sample Characteristics at Pretest

	Elementary				Secondary					
	Female		Male		Female		Male		Totals	
	N	%	N	%	N	%	N	%	N	%
Lower mainland										
Population	105	29.66	35	9.88	24	6.78	31	8.76	195	55.08
Sample	62	29.38	19	9	17	8.06	13	6.16	111	52.60
Interior sites										
Population	99	27.97	28	7.91	12	3.39	20	5.65	159	44.92
Sample	62	29.38	18	8.53	9	4.27	11	5.22	100	47.40
Totals										
Population	204	57.63	63	17.79	36	10.17	51	14.41	354	100
Sample	124	58.77	37	17.74	26	12.32	24	11.37	211	100

A total of 195 student-teachers completed the posttest at various times during the semester, as reported in Table 4. Of the 16 respondents who failed to respond to the posttest round, 10 had withdrawn from the program before the posttest was administered. A check of population withdrawal indicated that the sample at posttest continued to represent approximately 60% of the successful ED . 405 Spring 1979 candidates.

Table 4: Numbers in Sample at Pretest and Posttest

Group	Pretest	Posttest	Posttest as % of pretest	% Attrition
1	52	51	98.08	1.92
2	53	50	94.34	5.66
3	53	49	92.45	7.55
4	53	45	84.91	15.09
Total	211	195	92.42	7.58

Independent Variable

The Simon Fraser University Professional Development Course ED. 405, Spring 1979

Student-teachers undertaking this course completed ED. 401 and ED. 402 during the Fall 1978 semester (see Figure 3). The majority of student-teachers successfully completing this course will finish the program during the Summer 1979 semester by undertaking course ED. 404 on campus.

ED. 405 is one of the most important and innovative features of this Professional Development Program. The three-months intensive and continuous exposure of student-teachers to the reality of the classroom

> permit(s) the student, freed from the conflicting demands of university course work, to focus his energies on his professional growth. Furthermore, the increased length of experience removes some of the artificiality of the 'pop in-pop out' type of practice teaching (Ellis, 1967, p. 425).

During this period "the person who will later teach has an opportunity to test hypotheses under careful supervision and to explore and develop concrete and specific plans that are unique to his own personality" (De Nevi, 1974, p. 20). Each student-teacher, in conjunction with the Associates, is required

(i) to plan a personal program of extended teaching involving statements of objectives, activities, resources and evaluation procedures;

(ii) to carry out the program;

(iii) to evaluate the program and personal teaching performance; and

(iv) to develop personal goals for the final course in the Professional Development Program (Denos, Note 1, p. 18).

The student-teachers gradually build up their endurance and teaching load. They progress from teaching a small proportion of the School Associate's load early in the course to handling the full teaching load for three to four weeks later in the course at a time to match each student-teacher's individual progress and demonstrated competencies.

After seven or eight weeks the student-teacher, Faculty Associate and School Associate prepare a mid-semester formative evaluation covering progress made so far and setting goals for the remainder of the course. This evaluation is based on data obtained from the cycles of supervision undertaken by the triad members, with a heavy emphasis on the analysis completed by the student-teacher and School Associate. As each Faculty Associate is assigned approximately 15 student-teachers, visits to each student-teacher are likely to occur once every two weeks, supplemented with occasional workshops on campus or at external sites. The summative evaluation, completed at the end of the teaching period reports on the work of the "novice professional teacher, albeit with clear needs for further professional development" (Denos, Note 1, p. 18) and records the completion of the period of practical experience required for a Provincial teaching certificate.

The University emphasises that this course is part of a preservice

> developmental program. There should never be an upper limit to the student's developing mastery of classroom skills . . .. If a pilot analogy is used to express student-teacher competencies, by the end of ED. 401 the student should be able to fly the aircraft at a basic level, and should be capable of handling essential operations effectively, i.e., landing and take-off. By the end of ED. 405 the student should be able to take an extended solo flight which he plans and executes -

he should be capable of all basic operations. He should be able to navigate and have the confidence required for extended solo flights under normal operating conditions. The student should have the insight and commitment to improve his own teaching after leaving the Program (Kaser-Cannon and Marsh, Note 6, p. 15).

Dependent Variables

The Parsons Teaching Anxiety Scale (TCHAS)

The TCHAS (reproduced in Appendix C) was developed between 1965 and 1973 as the result of research to construct a "valid reliable instrument for the assessment of anxiety specific to the teaching situation" (Parsons, 1973b, p. 1). It is a self-reporting, 29 item scale on which the student-teacher registers a degree of agreement ranging from "Never = 1", to "Always = 5", with intermediate options of "Infrequently = 2", "Occasionally = 3", and "Frequently = 4". Fourteen of the 29 items are reversed to avoid acquiescent set.

The author reports a correlation between two forms of the scale, administered half an hour apart, of .94, and a "one-day test-retest Pearson Product Moment correlation . . . of .95" (Parsons, 1973b, p. 2). Internal consistency for various samples completing the scale range from .87 to .94 (Parsons, 1973b, p. 2). Confirmation of this high internal consistency was provided by Gregory (1976) who reported reliability measures of .87 and .86 for samples of 520 and 401 student-teachers (p. 207). Construct validity of the scale is established by reference to change over time, component analysis and group differences (Parsons, 1973b, pp. 2-3; 1973a).

Minor alterations were made to the wording to clarify 11 items on the scale. The term "Faculty Associate" was substituted for "college supervisor" in item 12, and the term "pupil" replaced the term "student" in items 2, 7, 9, 15, 18, 21, 22, 26, 27 and 29. The response key was also added to each page of the instrument.

Elsworth-Coulter Semantic Differentials

The Elsworth and Coulter (1977) instrument has been designed to measure

change, on a number of dimensions, in the self-perception of groups of student-teachers involved in a program of preservice teacher education. The instrument was developed to provide teacher educators with an evaluative insight into this "important aspect of professional socialization . . . in order that programs, or aspects of programs, which depreciate self-view might be reviewed" (Elsworth and Coulter, 1977, pp. 4-5).

The semantic differential scales, reproduced in Appendix C, employ 32 pairs of adjectives to report each of four concepts. The concepts measured are the personal concepts of "Myself" (actual self) and "Myself as I Would Like to Be" (ideal self), and the professional concepts of "Myself as a Teacher" (actual teacher) and "The Teacher I would Like to Be" (ideal teacher). Seven dimensions are identified and measured within each scale - Creativity, Orderliness, Warmth-supportiveness, Satisfaction, Clarity, Energy-enthusiasm, and Non-conformity (see Table 5). Items are distributed randomly to the scale and reversals are included to avoid acquiescent set (see Appendix D). Each item calls for a response along a seven-point continuum. Responses may be coded "7" positive, ranging to "1" negative, with subsequent summing to provide raw score scales for each factor. For example, the scale pairs for the dimension "Satisfaction" occur as items 8 ("satisfied-dissatisfied"), 13 ("fulfilled-frustrated") and 22 ("discontented-contented"; reversed) on each scale. The responses may be scored and then summed to reveal a raw score for that dimension.

The discrepancy between "actual" and "ideal" perception scores may be calculated to provide "an index of professional adjustment, or a general measure of the extent to which students saw themselves as frustrated or fulfilled on each dimension of . . . behaviour measured" (Elsworth and Coulter,

Table 5: Elsworth-Coulter Semantic Differential Scales: Dimensions and Adjectival Pairs

Creativity (CR1)			
	adaptable	-	rigid
	imaginative	-	unimaginative
	creative	-	uncreative
Orderliness (O2)			
	systematic	-	random
	jumbled	-	arranged
	orderly	-	chaotic
	prepared	-	unprepared
	organized	-	disorganized
	efficient	-	inefficient
Warmth-supportiveness (W3)			
	comforting	-	reproaching
	kind	-	mean
	esteeming	-	insulting
	rewarding	-	punishing
	warm	-	cool
	friendly	-	hostile
Satisfaction (S4)			
	satisfied	-	dissatisfied
	contented	-	discontented
	fulfilled	-	frustrated
Clarity (CL5)			
	sharp	-	blurry
	informing	-	puzzling
	clear	-	vague
	lucid	-	obscure
Energy-enthusiasm (E6)			
	enthusiastic	-	unenthusiastic
	energetic	-	inert
	eager	-	indifferent
	spirited	-	apathetic
	fresh	-	stale
Non-conformity (N7)			
	unconventional	-	conventional
	non-conforming	-	conforming
	unusual	-	usual
	liberated	-	restrained
	free	-	constrained

1977, p. 54).

The instrument was first developed in 1973 using a pool of items describing teacher behaviour which, the authors argue, had "objective value in the sense that they . . . (were) concerned with professional behaviour which . . . (could) be intuitively or empirically related to pupil growth" (Elsworth and Coulter, 1977, p. 4). They drew upon the work of Rosenshine (1971) who identified the important global concepts of teacher clarity, flexibility and warmth-supportiveness. The original instrument contained 56 items, but following extensive testing and analysis for concept-scale interaction was reduced to 32. The form used for this study is the August 1977 revision (Elsworth and Coulter, 1977).

The authors report "high and consistent loadings on the same dimension across different concepts and sub-groups of respondents (male-female, elementary-secondary student-teachers"; Elsworth and Coulter, 1977, p. 18). Noting that Nunnally (1967) considered scale reliability of .50 to .60 as adequate, the authors reported reliability values of .56 to .89 with a median value for the professional self-concept scales of .78, based on a sample of over one thousand student-teachers measured on two occasions (Elsworth and Coulter, 1977, p. 20). As the total 32-item scale reliabilities were found to be high the authors claim that the use "of the total score on the scale as a general measure of professional self-esteem . . . seem(s) to be justified (Elsworth and Coulter, 1977, p. 22).

The high reliability of the instrument was confirmed by Gregory (1976) in his Canadian study. He reported reliabilities ranging from .64 to .89, with a median value of .70, for the concepts "Teacher actual" and "Teacher ideal" using a sample of 533 student-teachers (p. 204). Extensive attempts

to demonstrate content, predictive and construct validity are also reported (Elsworth and Coulter, 1977, pp. 23-51).

Self-Reported Dominant Incidents

Each respondent was asked to describe one or more incidents that had occurred during the practicum and which could be considered to be dominant, yet representative of the practicum. The responses were open-ended and designed to provide some information for the interpretation of results on the teaching anxiety and self-concept scales. This question is reproduced in Appendix C.

Procedures

The decision to undertake a study of changes in the teaching anxiety and self-concepts of student-teachers was taken in early November, 1978. A draft of the proposal was submitted to the Director of the Professional Development Program in mid-November with a request for permission to approach student-teachers who would enrol in ED. 405 for the Spring 1979 semester. The request was approved by a meeting of Coordinators held on November 28th, 1978 (see Appendix E for detailed timetable).

In an attempt to create a positive and receptive attitude the researcher addressed a meeting on December 4th, 1978 of student-teachers enrolled in the campus ED. 402 program. Approximately 65-70% of the anticipated lower mainland student-teacher population for Spring 1979 attended the meeting. They heard a brief description of the study and received the first indication that all student-teachers in their next course would receive a mailed request for participation in the two rounds of the study. The study was also outlined to all Faculty Associates and Coordinators during their December meetings and valuable feedback was received on procedural and theoretical matters.

A pretest package was prepared for each student-teacher during late December and mailed to the student-teacher to arrive by the first day of ED. 405. The letter was addressed to each student-teacher's school, care of the School Associate. This format was chosen to reduce delays in delivery within the school. Each package contained the following material (see Appendix C):

(i) letter of introduction and request for participation in the study;

(ii) Pretest comprising: page one - questionnaire covering demographic information;

(iii) pages two to four - "Student-teacher questionnaire" (Parsons Teaching Anxiety Scale - 29 items);

(iv) pages five to nine - Student-teacher questionnaire (Elsworth-Coulter semantic differential on four concepts: "Myself", "Myself as I would like to be", "Myself as a teacher", and "The Teacher I would like to be";

(v) postage-paid and addressed return envelope.

Responses received by January 23rd, 1979 (one week after the latest requested completion date) were randomly assigned to one of four posttest groups using sets of random numbers obtained from the A.P.L. number generator program through the University Computing Center. The study design is illustrated in Figure 4. Pretest returns were coded and recorded for subsequent key punching and computer analysis. Checks were made for significant differences between responses completed on the recommended day and those responses showing a slightly later completion date. A further analysis was undertaken to check the randomness of the distribution to the four posttest groups.

As indicated in Figure 4, each posttest group was asked to complete the final set of questionnaires on one of four dates during the practicum. The posttest package was posted to the student-teacher's school after checking that the appointment was still current. The package was identical to the pretest with the exception of the covering letter and explanatory page. The latter contained a request for details of the student-teacher's

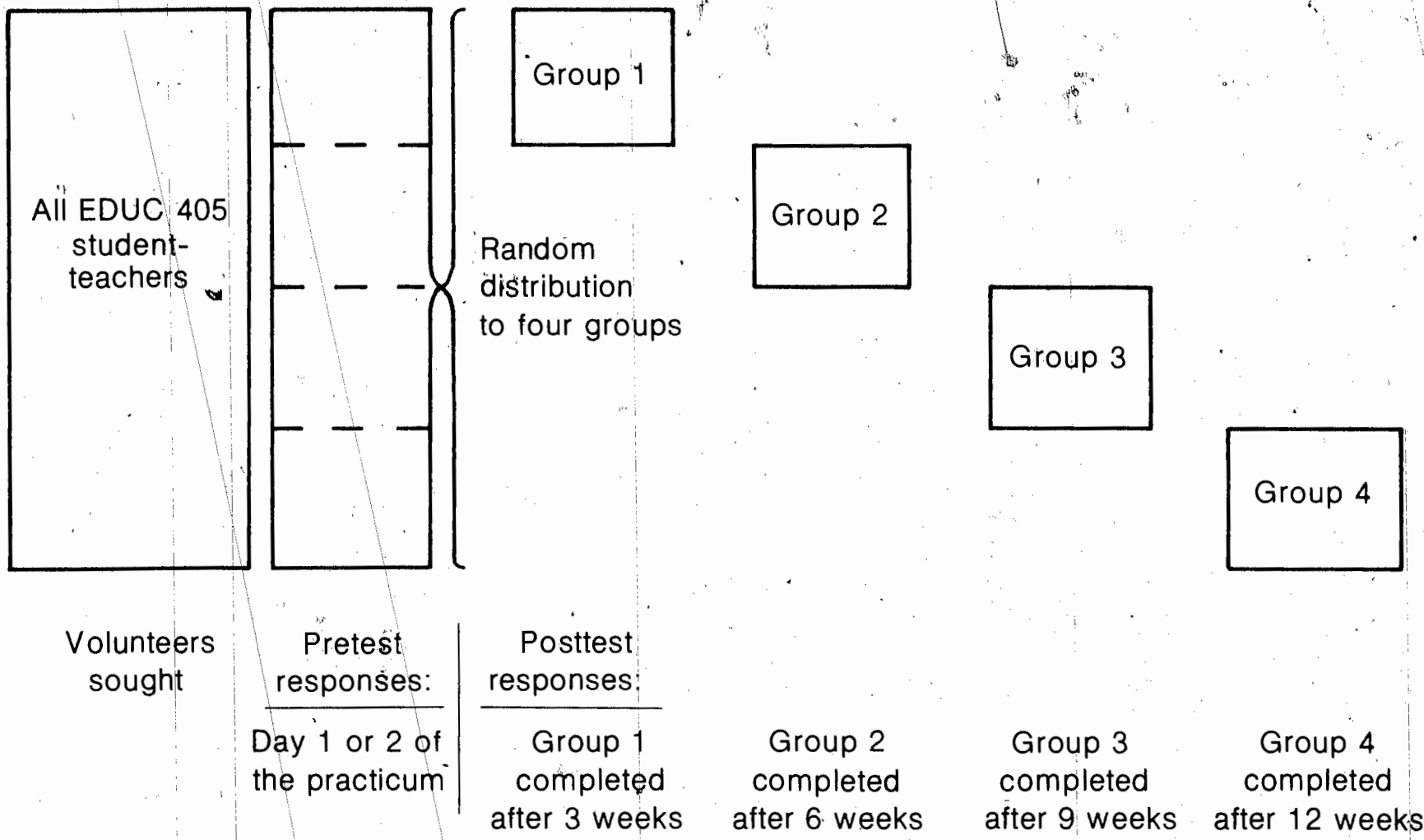


Figure 4. Study design: procedures and timeline.

academic background prior to admission to the Professional Development Program, and for reactions to the practicum (see Appendix C).

Any posttest outstanding after one week was followed up by a further letter containing a duplicate set of posttest materials. Although approximately 40 reminders were sent during the course of the study the majority was found to be unnecessary as the original set appeared to have been delayed in the mail and arrived soon afterwards. As student-teachers left their schools shortly after the completion date set for the fourth posttest group, Faculty Associates were asked to encourage student-teachers in the final group to complete the posttest on time and return the set without delay.

CHAPTER 5

Results

Data Analysis

The analysis of the teaching anxiety and self-concept data utilized components of the Statistical Package for the Social Sciences, Number 7 (Nie, Hull, Jenkins, Steinbrenner, and Bent, 1975). This package was designed specifically to analyse properties of multiple-attribute test scales used in the Social Sciences and to undertake a range of appropriate computations. Properties of scales analysed in the present study were:

(a) scores for each subject on each dimension and each scale;

(b) means;

(c) standard deviations;

(d) scale reliability (Cronbach's coefficient alpha).

Analyses of variance (ANOVA) were used to measure differences between the four randomly formed posttest groups on 49 factors at pretest - the five total scores on the Parsons and the Elsworth-Coulter scales, the 28 dimensions of self-concept (seven dimensions on each of the four scales), and 16 self-concept discrepancy scores. Differences between the pretests reported to have been completed on time and pretests reported to have been completed up to three days later were measured by *t* tests for each of the 49 dimensions and scales identified above.

Two major sets of analyses were undertaken in this study. Following a check for significant group interaction, analyses of covariance (ANCOVA) were employed to analyse the four posttest groups, with pretests as the

covariate, on all 49 dimensions and scales. Where significant differences were reported, the posttest data were subjected to Tukey's Honestly Significant Differences Test (HSD) using means adjusted for pretests. Finally, matched group *t* tests were used to compare the pretest and post-test scores of each of the four groups on dimensions where significant differences had been reported. Results were considered to be statistically significant where $p < .05$ (two-tailed tests, except where noted).

Results

Comparisons of four groups at pretest. Complete results of the ANOVA are reported in Appendix F. A further check of groups to include pretest respondents who did not complete a posttest round ($N = 211$) revealed no significant differences. It was therefore apparent that the groups were homogeneous and that subsequent posttest comparisons would be appropriate.

Comparisons of pretests - on time and later. A *t* test comparison of pretests completed on time ($n = 168$) and up to three days late ($n = 27$) was undertaken for each of the 49 dimensions and scale totals, as reported in Appendix G. Significant differences were revealed for the dimension of "Non-conformity" on the professional self-concept actual and ideal scales and subsequently on the professional self-concepts discrepancy scale ($p < .05$). In each case the late group was more conforming. However, the differences were marginal, and as 49 *t* tests had been completed the finding did not exceed the number of significant results that may have been expected to occur by chance alone at the .05 confidence level. As the late pretests had been distributed approximately equally and randomly to the four groups, and as no significant differences had been revealed among these groups, the late pretests were included with assurance.

Scale analysis. The scale reliability coefficients (Cronbach's coefficient alpha) of each scale at pretest and posttest are reported in Appendix H. Very high reliability coefficients were obtained for the Parsons Teaching Anxiety Scale (.87 and .91). This instrument was accepted with confidence. Scale reliability coefficients for the 56 pretest and posttest dimensions of the four Elsworth-Coulter self-concept scales generally were very high. More than half of the measures were > .80, with a median of .80. All five coefficients between .50 and .59 were on ideal scales, as was the single undesirably low coefficient of .40 on the "clarity" dimension of the ideal teacher scale at pretest. The authors of the scale reported generally lower reliability estimates on ideal than on actual scales and considered this to be "a reflection of the considerable attenuation in response variance" (Elsworth and Coulter, 1977, p. 22) on the aspirational concepts. Although this does not wholly account for the one very low reliability coefficient, this single result was not considered to be sufficiently serious to cast doubts upon the instrument as a whole. The generally very high estimates enabled it to be accepted with a high degree of confidence.

Major analysis. Comprehensive sets of results and analyses are presented in Tables 6 to 34. Results presented in the form of mean scores for each group supported by standard deviations and mean differences, pretest and posttest. All analyses are reported in detail. In order to facilitate the understanding of trends in the scores from testing period to testing period during the practicum, Figures 5 to 11 have been constructed to portray the mean differences in scores on each dimension from pretest to each of weeks 3, 6, 9 and 12 (groups 1, 2, 3 and 4). As the

self-concept scales employ varying numbers of items for the dimensions the scores have been re-computed on a basis of five items per dimension, thereby allowing an accurate and appropriate intrascale comparison.

Hypothesis 1: Teaching Anxiety

> It was hypothesized that teaching anxiety, as measured by the Parsons Teaching Anxiety Scale will:
> (a) decline from pretest to week 12;
> (b) decline from pretest to week 9;
> (c) not change between any other testing periods.

Results and analyses are presented in Tables 6 to 8. Mean differences between pretest and posttest scores for each group are portrayed in Figure 5.

Table 6: Results: Teaching Anxiety Scores at Pretest and Posttest, All Groups

Group	N	Mean	S.D.	Diff. Mean	Diff. S.D.	t value
Group 1	51					
Pretest		67.55	11.58			
Posttest		62.47	12.66	5.08	8.63	4.20*
Group 2	50					
Pretest		66.74	11.35			
Posttest		66.62	15.62	.12	11.17	.94
Group 3	49					
Pretest		70.08	11.68			
Posttest		62.14	13.73	7.94	11.42	4.87*†
Group 4	45					
Pretest		69.87	12.74			
Posttest		60.13	11.89	9.74	11.68	5.59*†

Note:

*$p < .001$

†one-tailed tests

Table 7: Analysis of Covariance on Posttest Scores, Teaching Anxiety, All Groups

Source	SS	df	MS	F
Covariate	13867.35	1	13867.35	129.26
Main effects-group	2073.76	3	691.25	6.44 *
Explained	15941.11	4	3985.28	37.15
Residual	20384.07	190	107.29	
Total	36325.18	194	187.24	

* $p < .0005$

Table 8: Tukey HSD on Adjusted Posttest Mean Differences, Teaching Anxiety

	Mean Differences Between Groups			
	1	2	3	4
1	0	n.s.	n.s.	n.s.
2	-4.75	0	*	*
3	2.22	6.97	0	n.s.
4	4.07	8.82	1.85	0

Notes:

Adjusted mean differences for covariate are:

Group 1: 63.19
2: 67.94
3: 60.97
4: 59.12

* $p < .01$ (HSD = 6.54; df 4, 191)

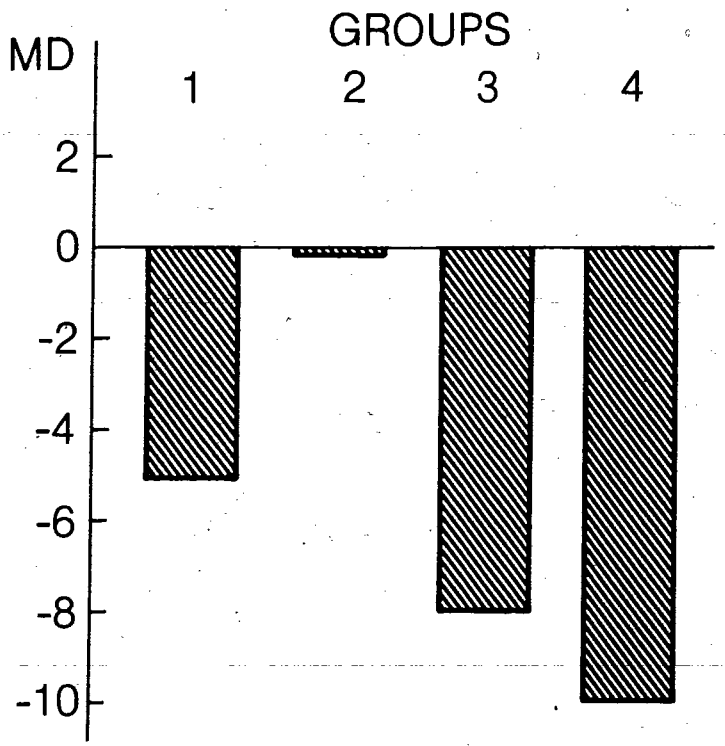


Figure 5. Mean differences from pretest to posttest, groups 1, 2, 3 and 4, teaching anxiety.

The first two sections of hypothesis 1 were not rejected. Very significant declines ($p < .0001$) had occurred in teaching anxiety by weeks 9 and 12 of the practicum (Table 6). However, the final section of the hypothesis was rejected. The analysis of covariance on posttest scores revealed highly significant changes ($p < .0005$ - see Table 7). A subsequent Tukey HSD test indicated that significant declines in teaching anxiety could be detected between weeks 6 and 9 and between weeks 6 and 12 (Table 8). The decline was also significant from pretest to week 3. In addition, a very small decline occurred between pretest and week 6. The only rise in teaching anxiety detected in the study was between weeks 3 and 6, a substantial but non-significant increase and against the trend of other change.

Hypothesis 2: Professional self-concept actual

> It was hypothesized that professional self-concept actual, as measured by the Elsworth-Coulter semantic differential "Myself as a teacher", for each of the seven dimensions (creativity, orderliness, warmth-supportiveness, satisfaction, clarity, energy-enthusiasm, and non-conformity) and the total scale will:
>
> (a) increase from pretest to week 12;
> (b) not change between any other testing periods.

Results are presented in Tables 9 and 10, and analyses in Tables 11 to 13. Mean differences between pretest and posttest scores for each group, computed on a base of five items per dimension, are portrayed in Figure 6.

Hypothesis 2(a) was not rejected for the dimension of orderliness (Table 13). The hypothesis was rejected for all other dimensions, though the dimensions of creativity, warmth-supportiveness, satisfaction, clarity, and the total scale all increased from pretest to week 12. The energy-enthusiasm dimension did not change and the dimension of non-conformity declined.

Table 9: Results: Semantic Differential Pretest and Posttest Scores, Groups 1 and 2, Professional Self-concept Actual

Dimension	Group 1[a] Mean	S.D.	Diff. Mean	Group 2[b] Mean	S.D.	Diff. Mean
Creativity						
Pretest	16.84	2.79		17.48	2.75	
Posttest	17.06	3.54	- .22	17.22	2.54	.26
Orderliness						
Pretest	34.77	4.61		35.42	5.69	
Posttest	33.53	7.34	1.24	34.46	6.50	.96
Warmth-supportiveness						
Pretest	36	4.80		36.10	3.68	
Posttest	35.78	6.59	.22	34.92	5.33	1.18
Satisfaction						
Pretest	16.51	3.80		16.76	3.99	
Posttest	16.28	4.07	.23	15.78	4.93	.98
Clarity						
Pretest	22.16	3.41		22.68	3.60	
Posttest	21.92	4.52	.24	22.22	3.91	.46
Energy-enthusiasm						
Pretest	29.65	3.89		30.48	3.52	
Posttest	28.80	5.99	.85	29.02	4.73	1.46
Non-conformity						
Pretest	20.49	4.76		21.90	4.46	
Posttest	21.31	6.38	- .82	21.46	5.33	.44
Total scale						
Pretest	176.41	19.57		180.82	21.41	
Posttest	174.69	32.35	1.72	175.08	26.70	5.74

Note:

[a] n = 51

[b] n = 50

Table 10: Results: Semantic Differential Pretest and Posttest Scores, Groups 3 and 4, Professional Self-concept Actual

	Group 3[a]			Group 4[b]		
Dimension	Mean	S.D.	Diff. Mean	Mean	S.D.	Diff. Mean
Creativity						
Pretest	17.18	2.81		16.69	3.15	
Posttest	16.59	2.57	.59	17.60	3.23	- .91
Orderliness						
Pretest	34.41	5.46		33.96	5.19	
Posttest	34.37	5.58	.04	36.04	3.40	-2.08
Warmth-supportiveness						
Pretest	36.69	3.72		36.87	3.61	
Posttest	35.61	4.30	1.08	37	4.04	- .13
Satisfaction						
Pretest	16.06	3.84		16.09	3.87	
Posttest	15.74	4.34	.32	16.60	3.40	- .51
Clarity						
Pretest	21.65	3.90		21.91	3.59	
Posttest	22.06	3.69	- .41	22.73	2.56	- .82
Energy-enthusiasm						
Pretest	29.16	3.63		29.73	3.46	
Posttest	29.27	3.55	- .11	29.73	3.65	0
Non-conformity						
Pretest	20.67	4.46		21.29	5.90	
Posttest	21.61	5.72	- .94	20.56	6.42	.73
Total scale						
Pretest	175.84	21.29		176.53	21.53	
Posttest	175.25	23.15	.59	180.27	17.78	-3.74

Note:

[a] n = 49

[b] n = 45

Table 11: Analysis of Covariance on Posttest Scores, Professional Self-concept Actual, All Groups

Source	SS	df	MS	F	p
Dimension 1: Creativity					
Covariate	448.69	1	448.69	68.03	
Main effects-group	38.98	3	12.99	1.97	
Explained	487.67	4	121.92	18.49	
Residual	1253.05	190	6.60		
Total	1740.72	194	8.97		
Dimension 2: Orderliness					
Covariate	1899.23	1	1899.23	75.41	
Main effects-group	241.22	3	80.41	3.19	<.05
Explained	2140.45	4	535.11	21.25	
Residual	4785.38	190	25.19		
Total	6925.83	194	35.70		
Dimension 3: Warmth-supp.					
Covariate	1352.47	1	1352.47	66.76	
Main effects-group	69.35	3	23.12	1.14	
Explained	1421.82	4	355.46	17.55	
Residual	3849.24	190	20.26		
Total	5271.06	194	27.17		
Dimension 4: Satisfaction					
Covariate	1030.64	1	1030.64	82.02	
Main effects-group	37.48	3	12.49	.99	
Explained	1068.11	4	267.03	21.25	
Residual	2387.39	190	12.57		
Total	3455.50	194	17.81		
Dimension 5: Clarity					
Covariate	750.43	1	750.43	75	
Main effects-group	28.03	3	9.34	.91	
Explained	778.46	4	194.61	18.93	
Residual	1953.04	190	10.28		
Total	2731.50	194	14.08		
Dimension 6: Energy-enth.					
Covariate	1006.42	1	1006.42	62.80	
Main effects-group	48.81	3	16.27	1.02	
Explained	1055.23	4	263.81	16.46	
Residual	3044.72	190	16.03		
Total	4099.95	194	21.13		
Dimension 7: Non-conformity					
Covariate	1559.67	1	1559.67	56.74	
Main effects-group	59.67	3	19.89	.72	
Explained	1619.34	4	404.84	14.73	
Residual	5223.20	190	27.49		
Total	6842.54	194	35.27		
Total scale:					
Covariate	30974.37	1	30974.37	61.71	
Main effects-group	1505.68	3	501.89	1	
Explained	32480.06	4	8120.02	16.17	
Residual	95369.13	190	501.94		
Total	127849.19	194	659.02		

Table 12: Tukey HSD on Adjusted Posttest Mean Differences, Professional Self-concept Actual, "Orderliness"

	Mean differences between groups			
	1	2	3	4
1	0	n.s.	n.s.	*
2	.53	0	n.s.	n.s.
3	1.06	.53	0	n.s.
4	3.02	2.49	1.96	0

Notes:

Adjusted mean differences for covariate are:

Group 1 33.46; Group 2 33.99;
Group 3 34.52; Group 4 36.48

* $p < .05$ (HSD = 2.61; df 4, 191)

Table 13: Matched-group t Tests on Pretests and Posttests, Groups 1, 2, 3 and 4, Professional Self-concept Actual, "Orderliness

Round	n	Mean	S.D.	Diff. Mean	Diff. S.D.	t Value
Group 1:	51					
Pretest		34.77	4.61			
Posttest		33.53	7.34	1.24	7.34	1.20
Group 2:	50					
Pretest		35.42	5.69			
Posttest		34.46	6.50	.96	5.39	1.26
Group 3:	49					
Pretest		34.41	5.46			
Posttest		34.37	5.58	.04	3.71	.08
Group 4	45					
Pretest		33.96	5.19			
Posttest		36.04	3.40	-2.08	4.25	-3.30*

* $p < .001$ (one-tailed test)

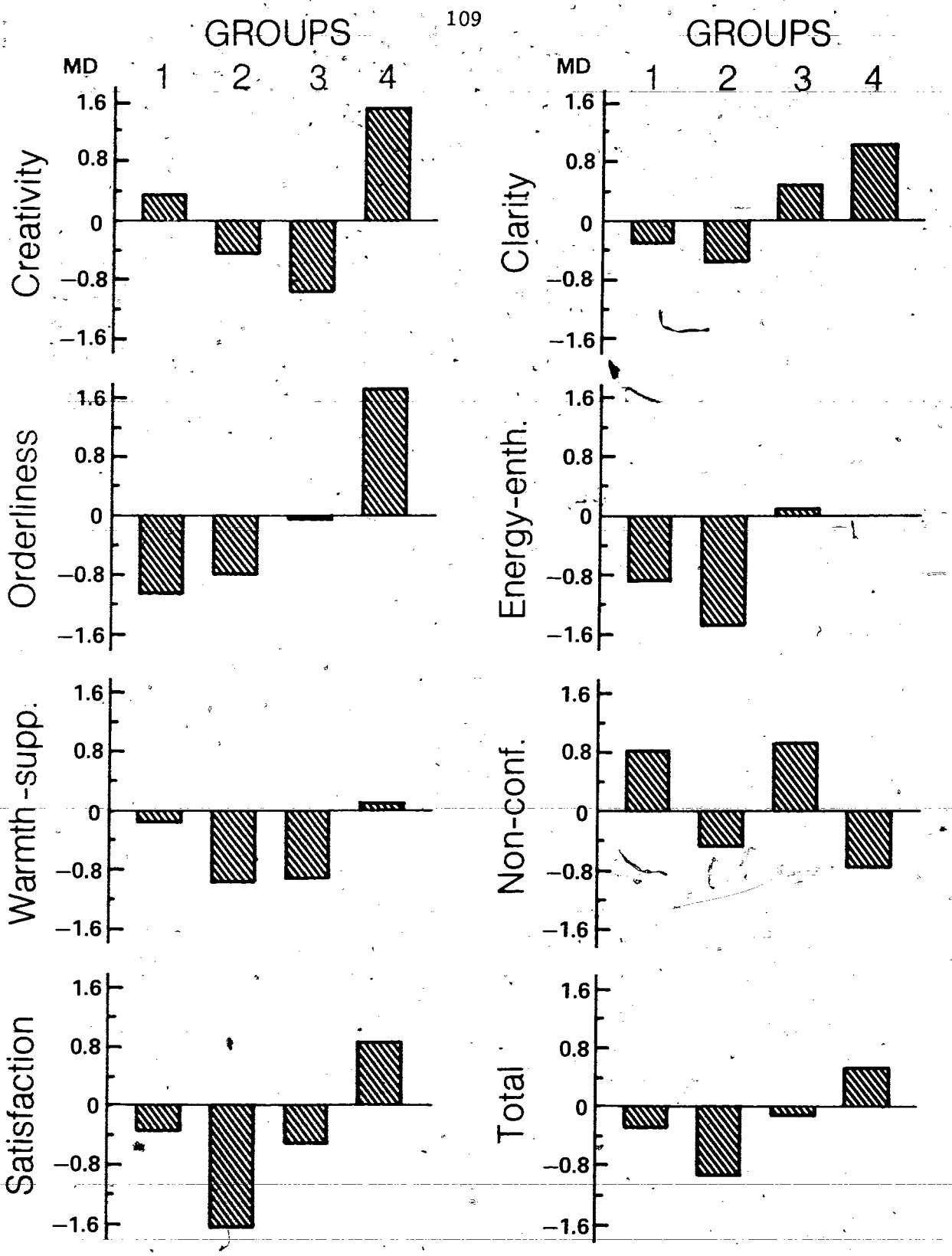


Figure 6. Mean differences from pretest to posttest, groups 1, 2, 3 and 4, on seven dimensions and total scale of professional self-concept actual. To facilitate comparisons, results have been computed on a base of five items per dimension and total scale.

Hypothesis 2(b) was not rejected for the total scale nor for six of the seven dimensions. The exception was the dimension of orderliness which showed a significant increase from week 3 to week 12 (Table 12). Although other changes were non-significant, a trend was noted in the direction of lowered professional self-concept actual from pretest to week 6 on all seven dimensions and the total scale.

Hypothesis 3: Professional self-concept ideal

> It was hypothesized that professional self-concept ideal, as measured by the Elsworth-Coulter semantic differential scale "The teacher I would like to be", for each of the seven dimensions and the total scale will:
>
> (a) not change from pretest to week 12;
> (b) not change between any other testing periods.

Results are presented in Tables 14 and 15, with ANCOVA displayed in Table 16. Changes in ideal professional self-concept are displayed graphically in Figure 7 where the mean differences have been computed to reflect a base of five items per dimension on this self-concept scale.

As no significant changes were found between pretest and week 12 on any dimension, or on the total scale, hypothesis 3(a) was not rejected. An ANCOVA (Table 16) did not reveal any significant changes among the posttest groups. Hypothesis 3(b), therefore, was not rejected.

Trends noted included decreases in creativity, orderliness, warmth-supportiveness, satisfaction, energy-enthusiasm and the total scale from pretest to week 6. Clarity increased by week 6, while the movement in non-conformity was negligible. By week 12 the pattern had become confused with the total scale indicating a slight decline.

Table 14: Results: Semantic Differential Pretest and Posttest Scores, Groups 1 and 2, Professional Self-concepts Ideal

Dimension	Group 1[a] Mean	S.D.	Diff. Mean	Group 2[b] Mean	S.D.	Diff. Mean
Creativity						
Pretest	20.45	1.05		20.70	.84	
Posttest	20.45	1.25	0	20.36	1.14	.34
Orderliness						
Pretest	39.98	2.74		40.66	2.04	
Posttest	40.20	2.70	- .22	40.18	2.56	.48
Warmth-supportiveness						
Pretest	39.84	3.46		40.54	2.01	
Posttest	40.12	2.78	- .28	39.78	3.09	.76
Satisfaction						
Pretest	20.43	1.24		20.10	2.45	
Posttest	20.51	1.17	- .08	20.04	2.29	.06
Clarity						
Pretest	26.65	1.83		26.74	1.68	
Posttest	26.73	1.85	- .08	26.92	1.64	- .18
Energy-enthusiasm						
Pretest	33.78	1.74		34.30	1.23	
Posttest	33.94	1.70	- .16	33.66	2.24	.64
Non-conformity						
Pretest	25.88	5.23		27.26	5.24	
Posttest	27.02	4.65	-1.14	27.28	5.78	- .02
Total scale						
Pretest	207.02	11.28		210.30	7.62	
Posttest	208.96	11.19	-1.94	208.22	11.43	2.08

Note:

[a] n = 51

[b] n = 50

Table 15: Results: Semantic Differential Pretest and Posttest Scores, Groups 3 and 4, Professional Self-concept Ideal

Dimension	Group 3[a] Mean	S.D.	Diff. Mean	Group 4[b] Mean	S.D.	Diff. Mean
Creativity						
Pretest	20.57	.96		20.53	.84	
Posttest	20.74	.73	- .17	20.40	.99	.13
Orderliness						
Pretest	40.51	2.03		39.84	2.44	
Posttest	40.57	1.90	- .06	39.82	2.33	.02
Warmth-supportiveness						
Pretest	40.55	2.05		39.84	2.27	
Posttest	40.16	2.48	.39	40.24	2.36	- .40
Satisfaction						
Pretest	20.47	1.50		20.44	1.08	
Posttest	20.27	1.48	.20	20.04	1.62	.40
Clarity						
Pretest	27.02	1.56		26.53	1.80	
Posttest	27.10	1.49	- .08	26.64	1.58	- .11
Energy-enthusiasm						
Pretest	34.02	1.83		33.60	2.01	
Posttest	34	1.66	.02	33.78	1.85	- .18
Non-conformity						
Pretest	27.18	4.55		27	4.10	
Posttest	27.43	5.24	- .25	26.38	6.24	.62
Total scale						
Pretest	210.33	7.65		207.80	8.02	
Posttest	210.27	9.90	.06	207.31	9.76	.49

Note:

[a] n = 49

[b] n = 45

Table 16: Analysis of Covariance on Posttest Scores, Professional Self-concept Ideal, All Groups

Source	SS	df	MS	F
Dimension 1: Creativity				
Covariate	34.27	1	34.27	37.10
Main effects-group	4.97	3	1.66	1.79
Explained	39.24	4	9.81	10.62
Residual	175.48	190	.92	
Total	214.72	194	1.11	
Dimension 2: Orderliness				
Covariate	298.18	1	298.18	70.35
Main effects-group	7.67	3	2.56	.60
Explained	305.85	4	76.46	18.04
Residual	805.33	190	4.24	
Total	1111.18	194	5.73	
Dimension 3: Warmth-supp.				
Covariate	473.62	1	473.62	99.86
Main effects-group	24.20	3	8.07	1.70
Explained	497.82	4	124.46	26.24
Residual	901.15	190	4.74	
Total	1398.97	194	7.21	
Dimension 4: Satisfaction				
Covariate	194.52	1	194.52	104.54
Main effects-group	5.46	3	1.82	.98
Explained	199.98	4	49.99	26.87
Residual	353.53	190	1.86	
Total	553.51	194	2.85	
Dimension 5: Clarity				
Covariate	148.55	1	148.55	75.36
Main effects-group	1.60	3	.53	.27
Explained	150.15	4	37.54	19.04
Residual	374.52	190	1.97	
Total	525.67	194	2.70	
Dimension 6: Energy-enth.				
Covariate	215.06	1	215.06	91.08
Main effects-group	11.70	3	3.90	1.65
Explained	226.75	4	56.69	24.01
Residual	448.62	190	2.36	
Total	675.37	194	3.48	
Dimension 7: Non-conformity				
Covariate	1911.14	1	1911.14	95.01
Main effects-group	46.58	3	15.13	.77
Explained	1957.71	4	489.43	24.33
Residual	3821.86	190	20.12	
Total	5779.57	194	29.79	
Total scale:				
Covariate	7636.68	1	7636.68	104.69
Main effects-group	271.08	3	90.36	1.24
Explained	7907.76	4	1976.94	27.10
Residual	13859.45	190	72.94	
Total	21767.20	194	112.20	

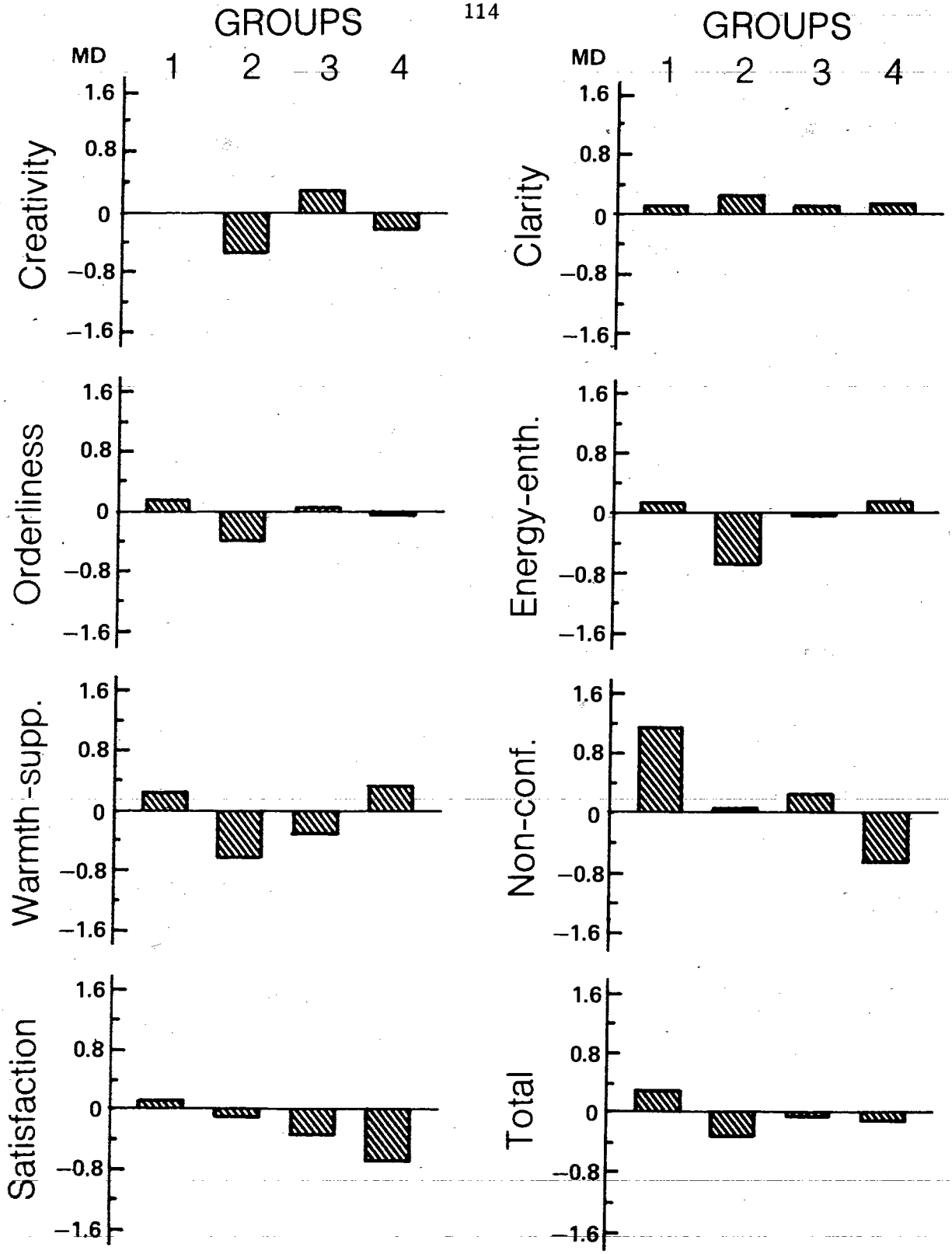


Figure 7. Mean differences from pretest to posttest, groups 1, 2, 3 and 4, on seven dimensions and total scale of professional self-concept ideal. To facilitate comparisons, results have been computed on a base of five items per dimension and total scale.

Hypothesis 4: Professional self-concept discrepancy scores

> It was hypothesized that the professional self-concept discrepancy scores (the difference between actual and ideal professional self-concept, as measured by the Elsworth-Coulter semantic differentials) for each of the seven dimensions and the total scores will:
>
> (a) decline from pretest to week 12;
>
> (b) not change between any other testing periods.

Tables 17 and 18 display the professional discrepancy scores for each group. Table 19 contains the details of the ANCOVA, with subsequent analysis of significant results appearing in Tables 20 to 23. A graphic display, reflecting the changes in mean differences and computed to reflect a five item base for each dimension and the total scale appears in Figure 8.

For the dimensions of creativity and orderliness, hypothesis 4(a) was not rejected, with the declines being significant at the .05 and .0005 levels of confidence, respectively. For the dimensions of warmth-supportiveness, satisfaction, clarity, energy-enthusiasm, non conformity and the total scale, hypothesis 4(a) was rejected. The discrepancy had narrowed for the dimensions of satisfaction and clarity, but had widened for the dimensions of warmth-supportiveness, energy-enthusiasm, and non-conformity. The latter movements were small and insufficient to overcome a decline in discrepancy on the total scale by week 12.

Hypothesis 4(b) was not rejected for the dimensions of warmth-supportiveness, satisfaction, clarity, energy-enthusiasm, and non-conformity, or for the total scale. It was rejected, however, for the dimensions of creativity and orderliness (Tables 19, 20 and 22). The Tukey HSD analysis of the posttest creativity scores, using means adjusted for the covariate (pretest), revealed a significant narrowing of professional

Table 17: Results: Discrepancy Scores on Professional Self-concepts, Groups 1 and 2, Pretest and Posttest

	Group 1[a]			Group 2[b]		
Dimension	Mean	S.D.	Diff. Mean	Mean	S.D.	Diff. Mean
Creativity						
Pretest	3.61	2.61		3.22	2.79	
Posttest	3.39	3.35	.22	3.14	2.65	.08
Orderliness						
Pretest	5.22	3.70		5.24	5.45	
Posttest	6.67	6.88	-1.45	5.72	5.56	- .48
Warmth-supportiveness						
Pretest	3.84	3.23		4.44	3.36	
Posttest	4.33	6.06	- .49	4.86	5.08	- .42
Satisfaction						
Pretest	3.92	3.57		3.34	3.25	
Posttest	4.24	3.88	- .32	4.26	4.68	- .92
Clarity						
Pretest	4.49	3.48		4.06	3.32	
Posttest	4.80	4.28	- .31	4.70	3.72	- .64
Energy-enthusiasm						
Pretest	4.14	3.46		3.82	3.39	
Posttest	5.14	5.56	-1	4.64	4.52	- .82
Non-conformity						
Pretest	5.39	4.26		5.36	5.18	
Posttest	5.71	6.91	- .32	5.82	5.18	- .46
Total scale						
Pretest	30.61	15.47		29.48	21.07	
Posttest	34.28	31.11	-3.67	33.14	24.98	-3.66

Note:

[a] n = 51

[b] n = 50

Table 18: Results: Discrepancy Scores on Professional Self-concepts, Groups 3 and 4, Pretest and Posttest

	Group 3[a]			Group 4[b]		
Dimension	Mean	S.D.	Diff. Mean	Mean	S.D.	Diff. Mean
Creativity						
Pretest	3.39	2.49		3.84	3.18	
Posttest	4.14	2.42	- .75	2.80	2.82	1.04
Orderliness						
Pretest	6.10	5		5.89	4.53	
Posttest	6.20	5.51	- .10	3.78	3.24	2.11
Warmth-supportiveness						
Pretest	3.86	3.33		2.98	3.39	
Posttest	4.55	3.69	- .69	3.24	3.35	- .26
Satisfaction						
Pretest	4.41	3.40		4.36	3.68	
Posttest	4.53	4.04	- .12	3.44	2.82	.92
Clarity						
Pretest	5.37	3.53		4.62	3.66	
Posttest	5.04	3.54	.33	3.91	2.18	.71
Energy-enthusiasm						
Pretest	4.86	3.52		3.87	2.97	
Posttest	4.74	3.43	.12	4.04	2.91	- .17
Non-conformity						
Pretest	6.51	5.32		5.71	5.49	
Posttest	5.82	5.43	.69	5.82	5.48	- .11
Total scale						
Pretest	34.49	19.72		31.27	20.76	
Posttest	35.02	22.37	- .53	27.04	14.80	4.23

Note:

[a] n = 49

[b] n = 45

Table 19: Analysis of Covariance on Posttest Scores, Professional Self-concepts Discrepancy, All Groups

Source	SS	df	MS	F	p
Dimension 1: Creativity					
Covariate	332.66	1	332.66	52.98	
Main effects-group	58.32	3	19.44	3.10	<.05
Explained	390.98	4	97.74	15.57	
Residual	1192.92	190	6.28		
Total	1583.90	194	8.16		
Dimension 2: Orderliness					
Covariate	1208.66	1	1208.66	50.48	
Main effects-group	268.72	3	89.57	3.74	<.05
Explained	1477.39	4	369.35	15.43	
Residual	4549.29	190	23.94		
Total	6026.68	194	31.07		
Dimension 3: Warmth-supp.					
Covariate	761.43	1	761.43	40.93	
Main effects-group	18.67	3	6.23	.34	
Explained	780.10	4	195.03	10.48	
Residual	3534.45	190	18.60		
Total	4314.55	194	22.24		
Dimension 4: Satisfaction					
Covariate	609.11	1	609.11	49.64	
Main effects-group	47.89	3	15.96	1.30	
Explained	656.99	4	164.25	13.39	
Residual	2331.51	190	12.27		
Total	2988.51	194	15.41		
Dimension 5: Clarity					
Covariate	423.98	1	423.98	40.60	
Main effects-group	31.14	3	10.38	.99	
Explained	455.12	4	113.78	10.90	
Residual	1984.27	190	10.44		
Total	2439.39	194	12.57		
Dimension 6: Energy-enth.					
Covariate	615.25	1	615.25	40.77	
Main effects-group	27.29	3	9.10	.60	
Explained	642.54	4	160.64	10.64	
Residual	2867.42	190	15.09		
Total	3509.96	194	18.09		
Dimension 7: Non-conformity					
Covariate	923.25	1	923.25	31.88	
Main effects-group	6.85	3	2.28	.08	
Explained	930.11	4	232.53	8.03	
Residual	5502.11	190	28.96		
Total	6432.22	194	33.16		
Total scale:					
Covariate	22610.28	1	22610.28	47.68	
Main effects-group	1731.65	3	577.22	1.22	
Explained	24341.94	4	6085.48	12.83	
Residual	90102.94	190	474.23		
Total	114444.88	194	589.92		

Table 20: Tukey HSD on Adjusted Posttest Mean Differences, Professional Self-concepts Discrepancy: "Creativity"

	Mean differences between groups			
	1	2	3	4
1	0	n.s.	n.s.	n.s.
2	.06	0	n.s.	n.s.
3	- .84	- .92	0	*
4	.70	.64	1.56	0

Notes:

Adjusted mean differences for covariates are:

Group 1	3.34	Group 2	3.28
Group 3	4.20	Group 4	2.64

* $p < .05$ (HSD = 1.31; df 4, 191)

Table 21: Matched-group t Tests on Pretests and Posttests, Groups 1, 2, 3 and 4, Professional Self-concepts Discrepancy: "Creativity"

Round	n	Mean	S.D.	Diff. Mean	Diff. S.D.	t Value
Group 1:	51					
Pretest		3.61	2.61			
Posttest		3.39	3.35	.22	3.48	.44
Group 2:	50					
Pretest		3.22	2.79			
Posttest		3.14	2.65	.08	2.48	.23
Group 3:	49					
Pretest		3.39	2.49			
Posttest		4.14	2.42	- .75	2.49	-2.12*
Group 4:	45					
Pretest		3.84	3.18			
Posttest		2.80	2.82	1.04	2.92	2.40*†

* $p < .05$
† one-tailed test

Table 22: Tukey HSD on Adjusted Posttest Mean Differences, Professional Self-concepts Discrepancy: "Orderliness

	Mean differences between groups			
	1	2	3	4
1	0	n.s.	n.s.	*
2	.96	0	n.s.	n.s.
3	.93	- .02	0	n.s.
4	3.25	2.29	2.31	0

Notes:

Adjusted mean differences for covariates are:

Group 1	6.87	Group 2	5.91
Group 3	5.93	Group 4	3.62

* $p < .01$ (HSD = 3.09; df 4, 191)

Table 23: Matched-group t Tests on Pretests and Posttests, Groups 1, 2, 3 and 4, Professional Self-concepts Discrepancy: "Orderliness"

Round	n	Mean	S.D.	Diff. Mean	Diff. S.D.	t Value
Group 1:	51					
Pretest		5.22	3.70			
Posttest		6.67	6.88	-1.45	7.33	-1.41
Group 2:	50					
Pretest		5.24	5.45			
Posttest		5.72	5.56	- .48	4.82	- .70
Group 3:	49					
Pretest		6.10	5			
Posttest		6.20	5.51	- .10	4.27	- .17
Group 4:	45					
Pretest		5.89	4.53			
Posttest		3.78	3.24	2.11	4.10	3.46*

* $p < .0005$ (one-tailed test)

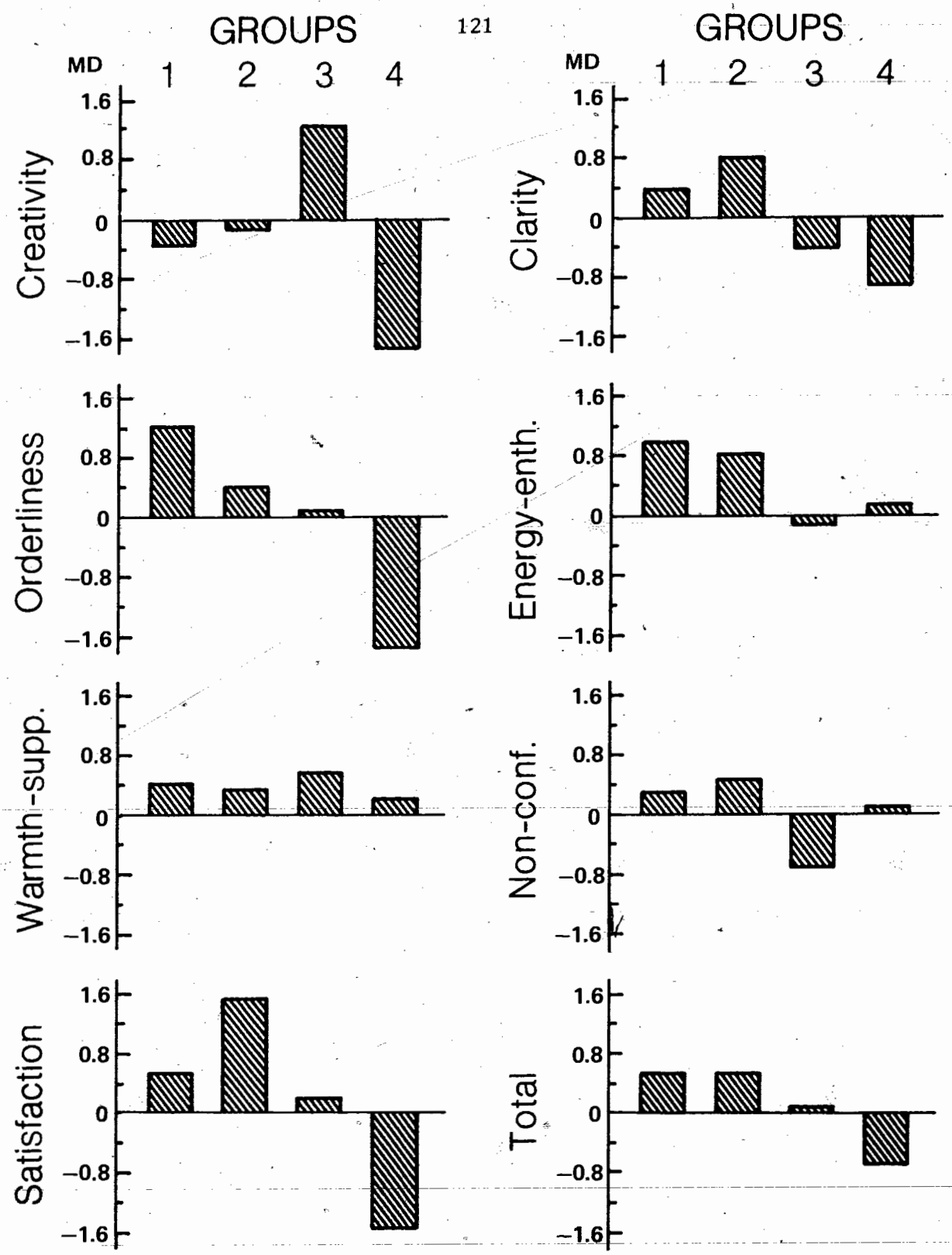


Figure 8. Mean differences from pretest to posttest, groups 1, 2, 3 and 4, on seven dimensions and total scale of professional self-concepts discrepancy. To facilitate comparisons, results have been computed on a base of five items per dimension and total scale.

discrepancy from week 9 to week 12 (Table 20). This decline came after a significant widening of discrepancy between the pretest round and week 9 (Table 21). Further analysis of the posttest scores on the orderliness dimension indicated that a significant decrease, or narrowing, had occurred between weeks 3 and 12 (Tukey HSD, Table 22).

An inspection of the results (Tables 17 and 18) and the mean differences (Figure 8) revealed to increase the size of the discrepancy from pretest to week 3, and from pretest to week 6, on the total scale and all dimensions with the exception of creativity. This trend appeared to begin a reversal by week 9 (the dimensions of clarity, energy-enthusiasm and non-conformity had declined) and by week 12 only the dimensions of warmth-supportiveness, energy-enthusiasm and non-conformity showed increases compared to pretest. In the latter three cases the increases were small, this being reflected in the decline in the total scale.

Hypothesis 5: Self-concept actual

> It was hypothesized that self-concept actual, as measured by the Elsworth-Coulter semantic differential scale "Myself", for each of the seven dimensions and the total scale will:
> (a) increase from pretest to week 12;
> (b) not change between any other two testing periods.

Results for this self-concept scale appear in Tables 24 and 25. A comprehensive ANCOVA is reported in Table 26 and a visual representation of the re-computed mean differences between each group's pretest and posttest scores is portrayed in Figure 9.

The first part of hypothesis 5 was rejected for the total scale and for all seven dimensions of self-concept. However, a clear trend emerged. By week 12 the total scale and all dimensions except non-conformity had

Table 24: Results: Semantic Differential Pretest and Posttest Scores, Groups 1 and 2, Self-concept Actual

Dimension	Group 1[a] Mean	S.D.	Diff. Mean	Group 2[b] Mean	S.D.	Diff. Mean
Creativity						
Pretest	17.63	2.58		17.14	2.94	
Posttest	17.20	2.54	.43	17.34	2.60	- .20
Orderliness						
Pretest	35.06	5.11		34.24	5.92	
Posttest	34.12	5.03	.94	33.80	6.07	.44
Warmth-supportiveness						
Pretest	35.84	4.08		35.74	3.95	
Posttest	36.24	3.56	- .40	34.76	5.19	.98
Satisfaction						
Pretest	16.57	3.62		17.10	3.16	
Posttest	16.80	3.24	- .23	15.96	4.62	1.14
Clarity						
Pretest	21.96	3.49		21.96	3.01	
Posttest	21.98	3.18	- .02	22.48	3.32	- .52
Energy-enthusiasm						
Pretest	30.12	3.49		30.14	3.17	
Posttest	29.57	3.74	.55	29.54	4.38	.60
Non-conformity						
Pretest	22.20	5.61		23.02	5.58	
Posttest	23.06	5.33	- .86	23.44	5.41	- .42
Total scale						
Pretest	179.37	18.11		179.34	18.11	
Posttest	178.96	17.43	.41	177.32	24.09	2.02

Note:

[a] n = 51

[b] n = 50

Table 25: Results: Semantic Differential Pretest and Posttest Scores, Groups 3 and 4, Self-concept Actual

Dimension	Group 3[a] Mean	S.D.	Diff. Mean	Group 4[b] Mean	S.D.	Diff. Mean
Creativity						
Pretest	17.14	2.71		17.07	2.62	
Posttest	17.12	3.03	.02	17.64	3.45	- .57
Orderliness						
Pretest	34.69	5.08		34.11	5.22	
Posttest	34.94	5.63	- .25	35.11	4.40	-1
Warmth-supportiveness						
Pretest	35.59	2.91		36.07	3.70	
Posttest	35.45	4.01	.14	36.64	3.94	- .57
Satisfaction						
Pretest	16	4.19		16.51	3.42	
Posttest	17.16	3.28	-1.16	17.22	2.51	- .71
Clarity						
Pretest	21.51	3.16		21.89	2.67	
Posttest	21.78	4.43	- .27	22.24	3.04	- .35
Energy-enthusiasm						
Pretest	29.39	3.01		29.58	3.68	
Posttest	30.04	3.10	- .65	29.89	3.59	- .31
Non-conformity						
Pretest	23.04	5.07		22.73	5.11	
Posttest	23.43	5.35	- .39	22.20	6.31	.53
Total scale						
Pretest	177.37	14.74		177.96	17.32	
Posttest	179.92	20.14	-2.55	180.96	18.74	-3

Note:

[a] n = 49

[b] n = 45

Table 26: Analysis of Covariance on Posttest Scores, Self-concept Actual, All Groups

Source	SS	df	MS	F	p
Dimension 1: Creativity					
Covariate	500.22	1	500.22	85.77	
Main effects-group	15.94	3	5.13	.91	
Explained	516.16	4	129.04	22.13	
Residual	1108.11	190	5.83		
Total	1624.27	194	8.37		
Dimension 2: Orderliness					
Covariate	2233.74	1	2233.74	133.26	
Main effects-group	79.79	3	26.60	1.59	
Explained	2313.53	4	578.38	34.50	
Residual	3184.92	190	16.76		
Total	5498.45	194	28.34		
Dimension 3: Warmth-supp.					
Covariate	1188.31	1	1188.31	100.71	
Main effects-group	80	3	26.76	2.26	
Explained	1268.31	4	317.08	26.87	
Residual	2241.85	190	11.80		
Total	3510.16	194	18.09		
Dimension 4: Satisfaction					
Covariate	680.93	1	680.93	78.91	
Main effects-group	93.56	3	31.19	3.61	
Explained	774.49	4	193.62	22.44	
Residual	1639.56	190	8.63		
Total	2414.05	194	12.44		
Dimension 5: Clarity					
Covariate	887.97	1	887.97	111.52	
Main effects-group	7.41	3	2.47	.31	
Explained	895.38	4	223.84	28.11	
Residual	1512.89	190	7.96		
Total	2408.27	194	12.41		
Dimension 6: Energy-enth.					
Covariate	993.70	1	993.70	114.95	
Main effects-group	37.90	3	12.63	1.46	
Explained	1031.61	4	257.90	29.83	
Residual	1642.56	190	8.65		
Total	2674.17	194	13.78		
Dimension 7: Non-conformity					
Covariate	3321.31	1	3321.31	237.06	
Main effects-group	44.13	3	14.71	1.05	
Explained	3365.44	4	841.36	60.05	
Residual	2661.95	190	14.01		
Total	6027.39	194	31.07		
Total scale:					
Covariate	34624.87	1	34624.87	151.07	
Main effects-group	708.35	3	236.17	1.03	
Explained	35333.22	4	8833.31	38.54	
Residual	43549.09	190	229.21		
Total	78882.31	194	406.61		

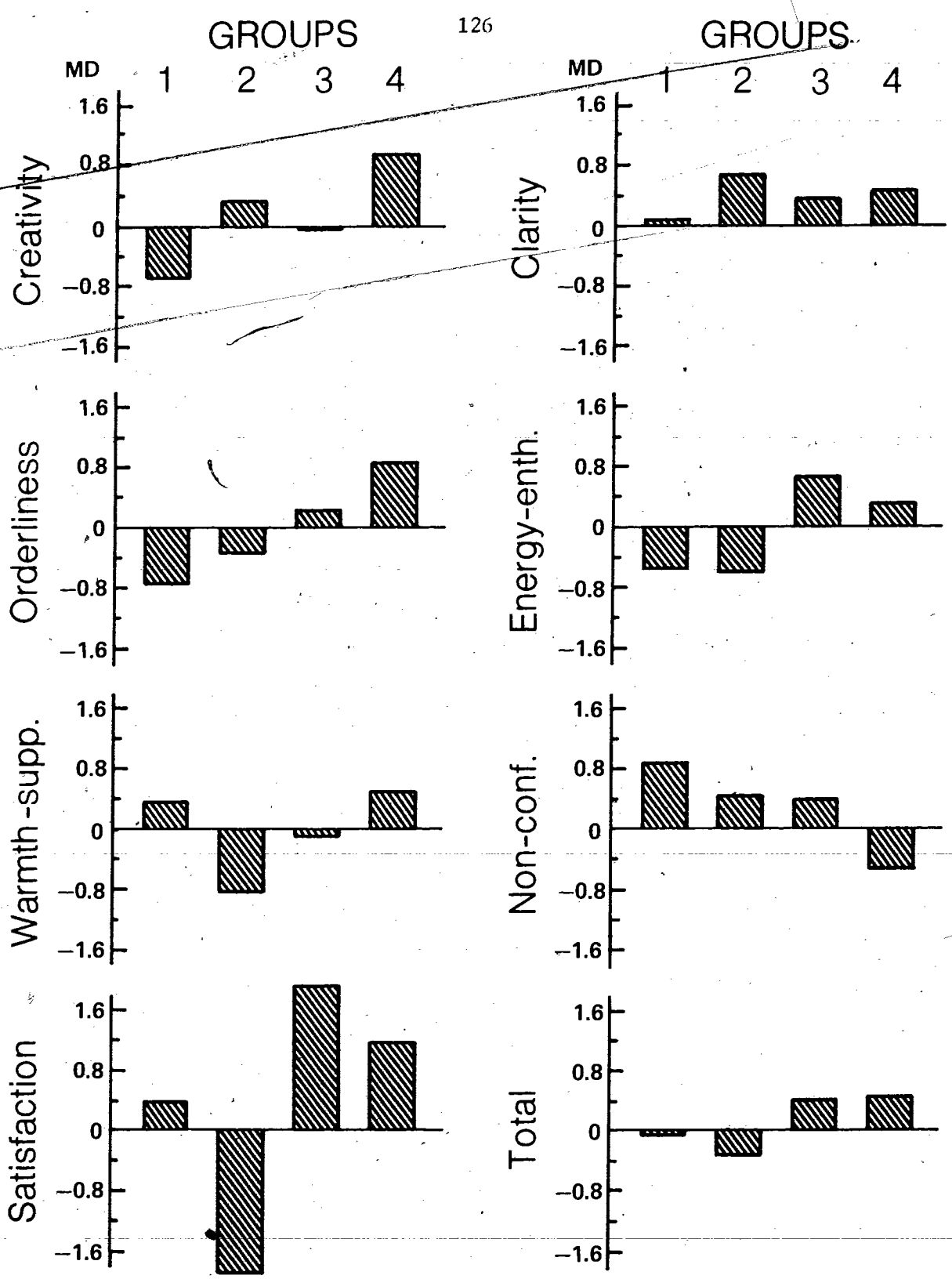


Figure 9. Mean differences from pretest to posttest, groups 1, 2, 3 and 4, on seven dimensions and total scale of self-concept actual. To facilitate comparisons, results have been computed on a base of five items per dimension and total scale.

made gains, though the changes were not large enough to be significant.

The second part of the hypothesis was not rejected for any of the seven dimensions or for the total scale. A multiple regression analysis and subsequent computations of the significance of interaction on each dimension revealed that the dimension of satisfaction on this self-concept scale was subject to a significant level of interaction ($F = 11.33$; the null hypothesis may be rejected if $F > 3.88$, df.3 and 187, $p < .05$). Although the ANCOVA suggested that significant posttest group differences existed, further analysis was inappropriate and the apparent significance was rejected.

An examination of the results (Tables 24 and 25) and the graphic representation of the recomputed mean differences (Figure 9) revealed that the total scale and the dimensions of creativity, orderliness, warmth-supportiveness, satisfaction and energy-enthusiasm all suffered declines from either pretest to week 3, or from pretest to week 6. All dimensions and the total scale were higher at week 12 than at week 3, though not significantly so.

Hypothesis 6: Self-concept ideal

> It was hypothesized that self-concept ideal, as measured by the Elsworth-Coulter semantic differential "Myself as I would like to be", for each of the seven dimensions and the total scale will:
> (a) not change from pretest to week 12;
> (b) not change between any other testing periods.

Tables 27 and 28 contain the results for the four groups, with the ANCOVA reported in Table 29. Figure 10 portrays the mean differences from pretest to posttest for each group on the seven dimensions and the scale total, computed on a five-item base per dimension.

Table 27: Results: Semantic Differential Pretest and Posttest Scores, Groups 1 and 2, Self-concept Ideal

Dimension	Group 1[a] Mean	S.D.	Diff. Mean	Group 2[b] Mean	S.D.	Diff. Mean
Creativity						
Pretest	20.51	1.08		20.46	1.34	
Posttest	20.35	1.48	.16	20.26	1.19	.20
Orderliness						
Pretest	39.33	2.89		40.20	2.20	
Posttest	39.86	3.12	- .53	39.30	3.22	.90
Warmth-supportiveness						
Pretest	39.45	3.49		40.04	2.53	
Posttest	40.04	2.93	- .59	39.64	2.90	.40
Satisfaction						
Pretest	20.24	1.37		20.16	1.78	
Posttest	20.47	1.32	- .23	20.08	2.12	.08
Clarity						
Pretest	26.04	2.12		26.54	1.98	
Posttest	26.75	1.66	- .71	26.64	2.15	- .10
Energy-enthusiasm						
Pretest	33.47	2		33.74	1.86	
Posttest	33.80	2.10	- .33	33.62	2.28	.12
Non-conformity						
Pretest	26.18	4.89		26.42	5.48	
Posttest	26.08	4.53	.90	27.50	5.68	-1.08
Total scale						
Pretest	205.22	11.75		207.56	9.62	
Posttest	207.35	11.77	-2.13	207.04	13.19	.52

Note:

[a] n = 51

[b] n = 50

Table 28: Results: Semantic Differential Pretest and Posttest Scores, Groups 3 and 4, Self-concept Ideal

Dimension	Group 3[a] Mean	S.D.	Diff. Mean	Group 4[b] Mean	S.D.	Diff. Mean
Creativity						
Pretest	20.61	.86		20.55	.99	
Posttest	20.71	.67	- .10	20.55	.76	0
Orderliness						
Pretest	39.71	3.13		39.16	2.81	
Posttest	39.80	2.34	- .08	38.89	3.30	.27
Warmth-supportiveness						
Pretest	40.06	2.55		39.78	2.01	
Posttest	40.27	2.24	- .21	40.09	2.29	- .31
Satisfaction						
Pretest	20.39	1.63		20.29	1.18	
Posttest	20.27	1.62	.12	20.24	1.37	.05
Clarity						
Pretest	26.53	2.60		26.22	2.09	
Posttest	26.76	1.80	- .23	26.04	1.95	.18
Energy-enthusiasm						
Pretest	33.92	1.85		33.69	1.91	
Posttest	33.92	1.55	0	33.58	1.99	.11
Non-conformity						
Pretest	27.06	4.83		26.76	4.46	
Posttest	27.43	5.32	- .36	25.71	6.91	1.05
Total scale						
Pretest	208.29	8.13		206.44	10.23	
Posttest	209.14	9.29	- .85	205.11	10.48	1.33

Note:

[a] n = 49

[b] n = 45

Table 29: Analysis of Covariance on Posttest Scores, Self-concept Ideal, All Groups

Source	SS	df	MS	F
Dimension 1: Creativity				
Covariate	88.34	1	88.34	119.72
Main effects-group	3.99	3	1.33	1.80
Explained	92.33	4	23.08	31.28
Residual	140.20	190	.74	
Total	232.53	194	1.20	
Dimension 2: Orderliness				
Covariate	665.92	1	665.92	119.71
Main effects-group	39.73	3	13.25	2.38
Explained	705.66	4	176.41	31.71
Residual	1056.97	190	5.56	
Total	1762.63	194	9.09	
Dimension 3: Warmth-supp.				
Covariate	501.11	1	501.11	118.26
Main effects-group	16.80	3	5.60	1.32
Explained	517.90	4	129.48	30.56
Residual	805.07	190	4.24	
Total	1322.98	194	6.82	
Dimension 4: Satisfaction				
Covariate	226.66	1	226.66	149.64
Main effects-group	3.67	3	1.22	.81
Explained	230.33	4	57.58	38.02
Residual	287.79	190	1.52	
Total	518.12	194	2.67	
Dimension 5: Clarity				
Covariate	214.34	1	214.34	86.25
Main effects-group	15.55	3	5.18	2.09
Explained	229.89	4	57.47	23.13
Residual	472.17	190	2.49	
Total	702.06	194	3.62	
Dimension 6: Energy-enth.				
Covariate	287.91	1	287.91	114.99
Main effects-group	4.48	3	1.50	.60
Explained	292.39	4	73.10	29.19
Residual	475.73	190	2.50	
Total	768.12	194	3.96	
Dimension 7: Non-conformity				
Covariate	2693.16	1	2693.16	151.16
Main effects-group	110.62	3	36.87	2.07
Explained	2803.78	4	700.94	39.34
Residual	3385.27	190	17.82	
Total	6189.05	194	31.90	
Total scale:				
Covariate	11023.97	1	11023.97	155.33
Main effects-group	301.30	3	100.43	1.42
Explained	11325.27	4	2831.32	39.80
Residual	13484.18	190	70.97	
Total	24809.45	194	127.88	

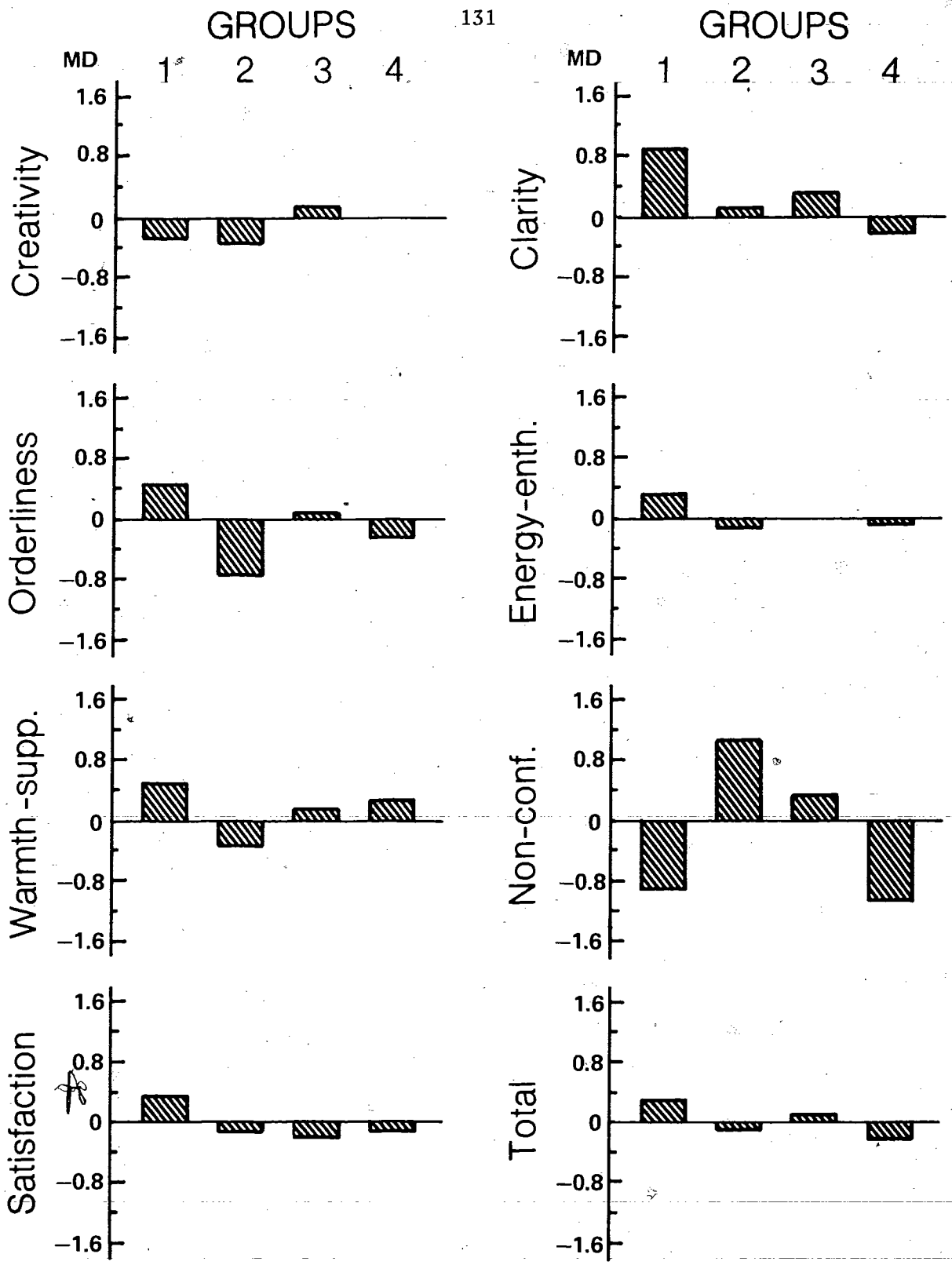


Figure 10. Mean differences from pretest to posttest, groups 1, 2, 3 and 4, on seven dimensions and total scale of self-concept ideal. To facilitate comparisons, results have been computed on a base of five items per dimension and total scale.

As no significant changes were found to have occurred between pretest and posttest the first part of this hypothesis was not rejected. Changes generally were small with slight decreases recorded on five dimensions (orderliness, satisfaction, clarity, energy-enthusiasm and non-conformity) and the total scale, and no change recorded on the dimension of creativity. With the exception of the non-conformity dimension all other dimensions and the total scale declined slightly, but non-significantly, between weeks 3 and 6.

Hypothesis 7: Self-concept discrepancy scores

> It was hypothesized that the self-concept discrepancy scores (the difference between actual and the ideal self-concept, as measured by the Elsworth-Coulter semantic differentials) for each of the seven dimensions and the total scale will:
> (a) decline from pretest to week 12;
> (b) not change between any other testing periods.

The self-concept discrepancy scores appear in Tables 30 and 31. The ANCOVA on the posttest scores appear in Table 32, with supplementary analyses reported in Tables 33 and 34. Once again the recomputed mean differences from pretest to posttest for each of the four groups are portrayed graphically (Figure 11).

Hypothesis 7(a) was rejected for the total scale and for six of the seven self-concept dimensions. The exception was the dimension of orderliness for which the hypothesis was not rejected. It should be noted that a multiple regression analysis and subsequent computation of the degree of significance of interaction for the dimension of satisfaction revealed that the null hypothesis of no significant interaction could be rejected ($F = 11.62$; the null hypothesis may be rejected if $F > 3.88$, df. 3 and 187, $p < .05$). Although the ANCOVA indicated that significant differences existed

Table 30: Results: Discrepancy Scores on Self-concepts, Groups 1 and 2, Pretest and Posttest

	Group 1[a]			Group 2[b]		
Dimension	Mean	S.D.	Diff. Mean	Mean	S.D.	Diff. Mean
Creativity						
Pretest	2.88	2.36		3.32	3.19	
Posttest	3.16	2.28	- .28	2.92	2.45	.40
Orderliness						
Pretest	4.28	4.19		5.96	4.99	
Posttest	5.75	4.87	-1.47	5.50	4.67	.46
Warmth-supportiveness						
Pretest	3.61	3.33		4.30	2.99	
Posttest	3.80	2.68	- .19	4.88	4.35	- .58
Satisfaction						
Pretest	3.67	3.51		3.06	2.56	
Posttest	3.67	3.40	0	4.12	4.20	-1.06
Clarity						
Pretest	4.08	3.21		4.58	2.70	
Posttest	4.77	2.86	- .69	4.16	3.31	.42
Energy-enthusiasm						
Pretest	3.35	2.70		3.60	2.69	
Posttest	4.24	2.94	- .89	4.08	4.02	- .48
Non-conformity						
Pretest	3.98	4.27		3.40	4.29	
Posttest	3.02	4.10	.96	4.06	3.44	- .66
Total scale						
Pretest	25.84	13.47		28.22	15.83	
Posttest	28.39	13.52	-2.55	29.72	20.66	-1.50

Note:

[a] n = 51

[b] n = 50

Table 31: Results: Discrepancy Scores on Self-concepts, Groups 3 and 4, Pretest and Posttest

Dimension	Group 3[a] Mean	S.D.	Diff. Mean	Group 4[b] Mean	S.D.	Diff. Mean
Creativity						
Pretest	3.47	2.39		3.49	2.44	
Posttest	3.59	2.87	- .12	2.91	3.17	.58
Orderliness						
Pretest	5.02	4.65		5.04	4.43	
Posttest	4.86	5.18	.16	3.78	3.98	1.26
Warmth-supportiveness						
Pretest	4.47	2.95		3.71	3.60	
Posttest	4.82	3.74	- .35	3.44	2.83	.27
Satisfaction						
Pretest	4.39	3.69		3.78	3.13	
Posttest	3.10	3.14	1.29	3.02	2.05	.76
Clarity						
Pretest	5.02	2.99		4.33	2.49	
Posttest	4.98	4.30	.04	3.80	2.61	.53
Energy-enthusiasm						
Pretest	4.53	2.63		4.11	3.26	
Posttest	3.88	2.83	.65	3.69	2.80	.42
Non-conformity						
Pretest	4.02	4.87		4.02	3.35	
Posttest	4	4.97	.02	3.51	4.88	.51
Total scale						
Pretest	30.92	14.15		28.49	14.67	
Posttest	29.23	18.47	1.69	24.16	15.60	4.33

Note:

[a] n = 49

[b] n = 45

Table 32: Analysis of Covariance on Posttest Scores, Self-concept Discrepancy, All Groups

Source	SS	df	MS	F	p
Dimension 1: Creativity					
Covariate	303.53	1	303.53	53.16	
Main effects-group	16.31	3	5.44	.95	
Explained	319.84	4	79.96	14.01	
Residual	1084.83	190	5.71		
Total	1404.67	194	7.24		
Dimension 2: Orderliness					
Covariate	1243.95	1	1243.95	79.73	
Main effects-group	138.44	3	46.15	2.96	<.05
Explained	1382.39	4	345.60	22.15	
Residual	2964.56	190	15.60		
Total	4346.95	194	22.41		
Dimension 3: Warmth-supp.					
Covariate	502.01	1	502.01	51.71	
Main effects-group	40.14	3	13.38	1.38	
Explained	542.15	4	135.54	13.96	
Residual	1844.52	190	9.71		
Total	2386.67	194	12.30		
Dimension 4: Satisfaction					
Covariate	413.81	1	413.81	47.70	
Main effects-group	80.46	3	26.82	3.09	
Explained	494.27	4	123.57	14.24	
Residual	1648.45	190	8.68		
Total	2142.72	194	11.05		
Dimension 5: Clarity					
Covariate	599.21	1	599.21	73.80	
Main effects-group	38.16	3	12.72	1.57	
Explained	637.37	4	159.34	19.63	
Residual	1542.69	190	8.12		
Total	2180.05	194	11.24		
Dimension 6: Energy-enth.					
Covariate	471.54	1	471.54	61.75	
Main effects-group	37.54	3	12.51	1.64	
Explained	509.07	4	127.27	16.67	
Residual	1450.83	190	7.64		
Total	1959.90	194	10.10		
Dimension 7: Non-conformity					
Covariate	652.52	1	652.52	41.47	
Main effects-group	48.27	3	16.09	1.02	
Explained	700.79	4	175.20	11.13	
Residual	2989.77	190	15.74		
Total	3690.56	194	19.02		
Total scale:					
Covariate	16914.73	1	16914.73	80.27	
Main effects-group	1074.71	3	358.24	1.70	
Explained	17989.44	4	4497.36	21.34	
Residual	40036.97	190	210.72		
Total	58026.41	194	299.11		

Table 33: Tukey HSD on Adjusted Posttest Mean Differences, Self-concept Discrepancy: "Orderliness"

	Mean differences between groups			
	1	2	3	4
1	0	n.s.	n.s.	*
2	1.20	0	n.s.	n.s.
3	1.31	.11	0	n.s.
4	2.40	1.20	1.09	0

Notes:

Adjusted mean differences for covariates are:

Group 1	6.20	Group 2	5
Group 3	4.89	Group 4	3.80

* $p < .05$ (HSD = 2.06; df 4, 191)

Table 34: Matched-group t Tests on Pretests and Posttests, Groups 1, 2, 3 and 4, Self-concepts Discrepancy: "Orderliness"

Round	n	Mean	S.D.	Diff. Mean	Diff. S.D.	t Value
Group 1:	51					
Pretest		4.28	4.19			
Posttest		5.75	4.87	-1.47	5.20	-2.02*
Group 2:	50					
Pretest		5.96	4.99			
Posttest		5.50	4.67	.46	3.74	.87
Group 3:	49					
Pretest		5.02	4.65			
Posttest		4.86	5.18	.16	4.66	.25
Group 4:	45					
Pretest		5.04	4.43			
Posttest		3.78	3.98	1.26	3.83	2.22*†

* $p < .05$

† one-tailed test

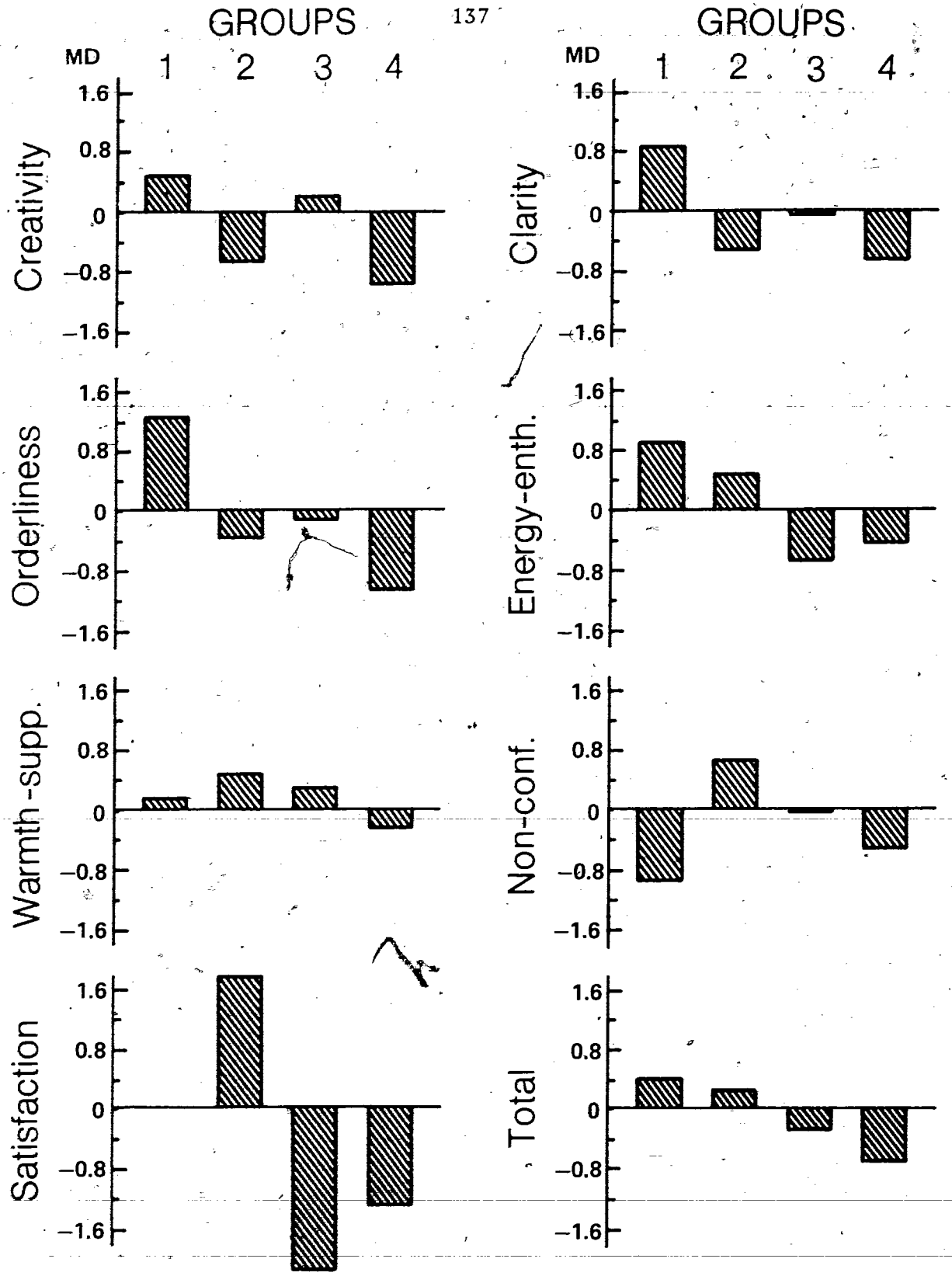


Figure 11. Mean differences from pretest to posttest, groups 1, 2, 3 and 4, on seven dimensions and total scale of self-concepts discrepancy. To facilitate comparisons, results have been computed on a base of five items per dimension and total scale.

within the groups on this dimension, further analysis was inappropriate and the finding was not pursued. As a similar finding has been reported in this study for the same dimension on the self-concept actual scale, this result was not unexpected.

A clear trend emerged in these results. All dimensions, and therefore the total scale, reported a narrowing in the discrepancy between actual and ideal self-concept from pretest to week 12 (Tables 30 and 31, and Figure 11).

Hypothesis 7(b) was not rejected for the dimensions of creativity, warmth-supportiveness, satisfaction, clarity, energy-enthusiasm, and non-conformity, nor for the total scale. However, this hypothesis was rejected for the dimension of orderliness as it was revealed that a significant decrease had occurred from weeks 3 to 12 (Table 33) and that a significant increase had occurred from pretest to week 3 (Table 34). A further trend appeared as all seven dimensions and the total scale exhibited greater discrepancy at week 6 than at the end of the practicum, week 12.

Results of Supplementary Data

The respondents were asked to describe dominant incidents that typified their experiences in the practicum. A simple content analysis procedure was undertaken to identify the themes seen as important by the student teachers.

Two raters (this author and one other person) independently examined the first group of posttests and 10 posttests from each of the other three groups, identified the common issues and clustered them into broad themes and sub-themes. Rater 1 (this author) identified eight broad themes and Rater 2, nine. There was complete agreement on seven themes and the second Rater's last two themes were combined into one theme (Table 35). The replies were

then rechecked.

Table 35: Number of References to Each Theme by Groups 1, 2, 3 and 4

Themes	Group 1	2	3	4	Theme total	Theme as % of total
1. Self and self as a teacher	61	50	76	42	229	35.02
2. Professional growth	7	5	23	14	49	7.49
3. Discipline	25	20	16	17	78	11.93
4. Teaching strategies	34	30	47	39	150	22.94
5. The teaching triad	18	18	23	14	73	11.16
6. Significant others	5	5	5	10	25	3.82
7. Course ED. 405	5	12	11	14	42	6.42
8. Other	1	3	2	2	8	1.22
Group total	156	143	203	152	654	100

A rating sheet was prepared containing themes, sub-themes and columns to enable the Raters to indicate whether the references to each theme and sub-theme were positive, neutral or negative. Once all posttests had been returned 30 respones were randomly chosen, photocopied and independently analysed by the two raters. The two sets of evaluations were then compared by calculating three measures of reliability: the degree of agreement in the identification of themes; the degree of agreement in themes and sub-themes; and the degree of agreement in themes, sub-themes and values assigned to the references. Agreements of 92%, 91% and 88% respectively were considered to be satisfactory and the total sample was subsequently analysed by the author.

Results of the analysis appear in Tables 35 to 37 and Appendix I. A chi-square test was applied to the cells reported in Table 35 to test the null hypothesis that there was no significant difference in the number of references made to each theme by each group. As an 8 x 4 analysis did not reject the null hypothesis it appeared that the number of references made by each group to each theme did not differ significantly. The groups were then paired for additional analysis by 8 x 2 chi-square tests (Table 37). The null hypothesis

Table 36: References by Group and Value Assigned

Group	Positive	Neutral	Negative	Total # of references
1	81	25	50	156
2	67	30	46	143
3	90	51	62	203
4	101	33	18	152
Total	339	139	176	654

Table 37: Summary of Chi-square Analyses: Comparison of Number of References to Each Theme, by Groups; Comparison of Values Assigned, by Groups

Groups compared	# of references		Value assigned	
	χ^2 result	p	χ^2 result	p
1, 2, 3, and 4	31.46^{a}_{b}	n.s.	18.66^{c}_{d}	< .01
1 and 2	5.64^{b}	n.s.	1.30^{d}	n.s.
1 and 3	11.46^{b}	n.s.	4.62^{d}	n.s.
1 and 4	14.43^{b}	< .05	18.56^{d}	< .001
2 and 3	11.87^{b}	n.s.	$.68^{d}$	n.s.
2 and 4	8.64^{b}	n.s.	19.01^{d}	< .001
3 and 4	9.87^{b}	n.s.	21.81^{d}	< .001

Notes:

[a][b] 8 x 4 table, df = 21; null hypothesis rejected if $\chi^2 > 32.67$, $p < .05$
[c] 8 x 2 table, df = 7; null hypothesis rejected if $\chi^2 > 14.07$, $p < .05$
[d] 3 x 4 table, df = 6; null hypothesis rejected if $\chi^2 > 12.59$, $p < .05$
3 x 2 table, df = 2; null hypothesis rejected if $\chi^2 > 5.99$, $p < .05$

was rejected for groups 1 and 4 ($p < .05$) and an inspection of the cells suggested that the group 4 student-teachers had made more frequent reference to "professional growth" and the "ED. 405 course" and less frequent reference to "self and self as a teacher". A final set of chi-square tests compared the values assigned to the comments made by each group, using the cells reported in Table 36. The results are summarized in Table 37. Significant differences were found between groups 1, 2, 3 and 4 ($p < .01$). Subsequent paired-group

analysis revealed significant differences between three pairs of group responses: group 1 (completed at the end of the third week of the practicum) and group 4 (week 12); group 2 (week 6) and group 4; and between group 3 (week 9) and group 4. In each of these paired-group analyses the later group was significantly more positive in its reporting than the earlier group ($p < .01$).

CHAPTER 6

Discussion

Conclusions

The major purpose of this study was to detect changes in teaching anxiety, professional self-concept and self-concept that occurred during the practicum in the hope that this might lead to some tentative conclusions about the appropriateness of an extended practicum such as Simon Fraser University's ED. 405. It was also hoped to be able to identify pressure points in the practicum, characterized by increases in teaching anxiety or declines in self-reported self-concept and professional self-concept, so that all participants would be better prepared and alerted to face such pressures if and when they occurred.

This chapter will consider the above issues and will draw upon student-teachers open-ended comments in an attempt to illustrate the statistical findings. Any trends identified in these comments must be seen as somewhat speculative and may not be considered as reliable or as powerful as the major analysis reported earlier. The comments do, however, add valuable flavor and body to the study's findings and begin to recognize some of the issues that seem to be uppermost in the minds of student-teachers during their three months' practicum, issues that need to be acknowledged and studied by practicum planners.

Teaching anxiety. Previous studies generally measured teaching anxiety at pretest and posttest, metaphorically plotted the two scores on a graph and joined the points with a straight line. They frequently concluded that any

reported change occurred evenly over the length of the practicum and moved in the one direction. Had the present study ignored the measurements taken at weeks 3, 6 and 9 and plotted only the pretest and posttest (week 12, group 4) scores, one would have been tempted, even justified, to conclude that the shift from the group 4 pretest mean of 69.87 to the posttest mean of 60.13 (Table 6) was not only highly significant ($p < .001$) but also reflected a gradual and unidirectional decline over 12 weeks. That the latter part of this conclusion can be shown to be grossly unjustified for this study highlights the value of the study and tends to question the appropriateness of conclusions reached in studies that have employed a simple pretest-posttest design.

An inspection of the magnitude, significance and direction of change in teaching anxiety during the practicum (Tables 6 to 8) and from pretest to week 12 (Table 6) reveals a number of important findings. Firstly, the ANCOVA and Tukey HSD analyses disclose that the level of teaching anxiety reported at posttest declined significantly from week 6 to week 9, and from week 6 to week 12. Secondly, the same form of analyses show that the magnitude of change from week 3 to weeks 9 and 12 was too small to be significant, having already declined from pretest to week 3. Thirdly, and perhaps most importantly, it should be noted that scores from pretest to posttest declined significantly for all groups except group 2, which completed its posttest in week 6, midway through the practicum (Table 6). As the groups had been shown to be homogeneous at pretest, these results indicate that the level of teaching anxiety fell in the first three weeks ($p < .001$) but rose again to a level that was only infinitesimally lower than the level reported at pretest. It would seem that consistent declines and directional stability do not become established until the second half of the extended practicum, around week 9,

with a further increase occurring in the magnitude of change by the end of the practicum.

Speculations on the reasons for this pattern of change are in order. In the first three weeks student-teachers are introduced gradually to the classroom. Depending on previous experiences they are expected to undertake substantial observation, but only limited teaching with small groups of pupils on a one teaching segment per day basis (Kaser-Cannon and Marsh, Note 6, pp. 15 and 18). This is considered to be a settling-in period allowing student-teachers to become familiar with the classroom setting, the pupils, procedures and expectations. The significant decline in teaching anxiety appears to reflect this arrangement. The greater demands in the next few weeks include unit planning, teaching responsibilities in a wide range of curriculum areas, full-time teaching and a mid-semester "formative evaluation" (Kaser-Cannon and Marsh, Note 6, p. 13). These additional pressures may account for the reversal of the previous decline in teaching anxiety. By the next posttest period, the student-teachers have received an indication from the formative evaluation process that they are likely to complete the practicum successfully. They have had a substantial period of full-time teaching and by their continued presence in the program have experienced a significant degree of achievement. The goal of becoming a "novice professional teacher with a basic set of skills" (Kaser-Cannon and Marsh, Note 6, p. 15) must now appear to be realistic and attainable. Other significant declines in teaching anxiety (pretest - week 9, $p < .001$); week 6 - week 9, $p < .01$) reflect this accomplishment, are embellished by a further decline to the end of the practicum (week 12), and coincide with more positive reporting by the student-teachers and with some significant increases in professional self-concept.

A sample of student-teachers' comments exemplifies these speculations, though it must be emphasised that the comments are unique to each student-teacher while the themes and statistical changes are the product of many individual responses. The diversity and variety of concerns is reported further in Appendix I and may be compared to sources of anxiety identified in other studies (Table 2).

Themes identified in the supplementary data analysis may each contribute to an increase or decrease in teaching anxiety for individual student-teachers. Initial anxiety can be detected in many comments, often followed by an indication of some amelioration:

> I was unsure exactly what I should be doing in the first few days. But it did not take long for me to find myself and start my planning (week 3).
>
> Once the rapport was established the real teaching began . . . And speaking of miracles after exactly 12 days of teaching half-time, I have not encountered any serious discipline problems (week 3).

References to self and to self as a teacher accounted for over 35% of all comments (Table 35). The third most frequently mentioned theme, and raised above, was discipline, which attracted 12% of all comments.

> Without the control of the class it really wouldn't matter how many illuminating concepts or ideas a person had to convey -- they would all be lost in the resulting chaos (week 3).
>
> The amount of time spent dealing with classroom discipline . . . has been a surprisingly dominant part of the practicum (week 6).
>
> In the first 10 minutes of the day . . . I inevitably saw varying stages of disorganization, chaos, etc. Invariably my response was one of anger, defensiveness and open hostility as they cleaned up and calmed down. As a daily hors d'oeuvre it was exhausting (week 9).
>
> Once it gets to the point where I know it has gone too far then I realize that I must take a stand and do, and can take firm control (week 12).

Nearly 25% of references were to teaching strategies, including planning, knowledge of curriculum and appropriate resources, techniques, classroom routines, pupil evaluation and individual differences. Many of these sub-themes impinged on teaching anxiety.

> If anything typifies my experiences it is the endless resourcefullness and creativity required to motivate children (week 6).

> The importance of planning and forethought; the possibility of links and overlaps; the availability of resource materials; I had no idea of timing and the groups were a total shamble after two days (week 9).

A substantial number of references, negative and positive, were made to personnel in role-supportive positions: the Faculty Associates; School Associates; Principals; and other teachers in the school. Included were references to the key parts these people played and to the need for careful selection and screening of the Associates. The proportion of references to the ED. 405 course grew as the practicum progressed, as did the positive nature of the comments, reflecting lowered teaching anxiety and increased confidence:

> I'm glad for the length of the practicum because it allows for the novelty of a "student-teacher" to wear off and the teaching atmosphere and situation to become much more realistic (week 12).

Professional self-concepts. The professional self-concept actual results support recent research that has reported increases in this concept by the end of a practicum. But, as has been shown to be the case with teaching anxiety, the present study identified trends that would have remained undetected in a simple pretest-posttest design.

By the twelfth week of the practicum, scores on the dimension of orderliness had increased sufficiently to be statistically significant when compared to pretest and week 3 scores. This indicates that as a group the

student-teachers saw themselves to be more systematic, arranged, orderly, prepared, organized and efficient at the end of twelve weeks of classroom experience than at the beginning of the practicum. This may also help to explain the final group's more positive comments. It must be emphasized that it took between nine and twelve weeks of classroom experience for the positive movement to become significant and that before week 9 both posttests showed a small decline in orderliness. Although no other significant results were obtained it is worth noting that the scores at weeks 3 and 6 on the eight posttest dimensions showed a clear negative trend. Only creativity and non-conformity at week 3 reported higher scores than at pretest. The negative trend appears to have been reversed sometime after week 6, and by week 12 only the dimension of non-conformity showed a decrement. It is likely that the practicum had exercised a moderating and socializing influence upon the student-teachers as the final group reported that they felt slightly more conventional, conforming, usual, restrained and constrained.

The professional self-concept ideal results supported findings from previous studies that this concept is relatively stable (Coulter, 1974, 1976; Gregory, 1976; Walberg, 1967b). Mean differences were small throughout the study.

The gap between perceptions of self as a teacher and an ideal teacher, as measured by the professional self-concepts discrepancy scores, narrowed significantly for the dimensions of creativity and orderliness. As these dimensions were relatively stable on the professional self-concept ideal scale it appears that the significant results were due to substantial increases in these dimensions on the professional self-concept scale. Once again it should be emphasized that four of the five significant results did not occur until week 12. Of particular interest is the significant increase

in the size of the discrepancy on the creativity dimension reported at week 9. It appears that the student-teachers considered themselves to be significantly less adaptable, imaginative and creative than their ideal teacher. As this response came during their period of full-time teaching one could speculate that the pressure of preparing a large number of lessons drained their creative abilities and represented a pressure point in the practicum. This may be compared to the scores at weeks 3 and 6 when the dimension of creativity was the only professional discrepancy dimension to experience a slight decrease at a time when student-teachers were being gradually introduced to the wider role of the teacher and undertaking only isolated teaching segments.

It would appear that all the themes identified in the respondents' comments could contribute to changes in the assessment of their professional self-image. Their performance in the role of full-time teachers and the reactions of pupils appears to have been very important and prompted over 170 references. There is some evidence to suggest that references to these sub-themes declined as the practicum approached its concluding phase and student-teachers overcame some of their fears of the teacher's role and pupil reactions (Table 57). An increase in reported professional confidence was also noted.

> They don't see me as a teacher (week 3).
>
> The extreme highs occur when the students in my classes react favorably to what I have planned (week 3).
>
> The most rewarding and fulfilling experiences for me are when I see the faces of the students change to exuberant smiles and when I realize I have reached them (week 12).

Self-concepts. No significant changes occurred in actual self-concept during the practicum, though there were trends of early decrements and later

increments in the dimensions of creativity, orderliness, warmth-supportiveness, satisfaction, energy-enthusiasm and in the total scale, implying that the long period of teaching may be advantageous. These movements reflected similar movements in the professional self-concept actual scale where the same dimensions, plus the dimension of clarity, fell and rose during the practicum, coinciding with upward and downward movements in teaching anxiety. The trends in self-concept scores were probably attributable in part to the dominance of the practicum in the student-teachers' personal as well as professional life. Many student teachers reflected on the amount of time needed to prepare lessons and meet their other responsibilities as a full-time teacher, a dominant theme in early posttests. Of the 56 references to demands on self only three were assessed as positive.

> I've never worked quite so hard on anything in my entire life (week 3).
>
> I do not have any time to do the things I am normally used to, for example, physical exercise, breakfast . . . my day is so rushed and hectic (week 6).
>
> As the practicum progressed I became swamped with work and found myself with more than I could handle . . . I became absentminded, leaving things around, forgetting lesson plans. I lost weight because of poor eating habits, couldn't sleep at night and was generally miserable (week 9).
>
> I was under a lot of pressure (week 12).

Although other researchers have claimed that stability or higher scores in this concept by the end of practica can be attributed to successful survival (Coulter, 1974; Wright and Tuska, 1968) it is possible that the positive trend better reflects a feeling of personal development and achievement over a substantial period.

Self-concept ideal scores were found to be stable, again supporting previous findings. Eventual decreases in self-concept discrepancy scores

mirrored movements in self-concept. All dimensions and the total scale reported decrements by week 12. This trend was not clearly established before the final posttest. A significant widening of the orderliness dimension at the end of three weeks may be an additional indication of an approaching pressure point in the practicum.

Some summary implications. Any inferences must be speculative as this study cannot account for individual differences or measure the degree of individual pacing imposed by student-teachers knowing that they have three months in which to achieve set goals.

What are the implications for the length of the practicum? It does seem clear that had the practicum ended after three weeks, the student-teachers, as a group, would have left the classroom less anxious and therefore less likely to be suffering from "self-depreciating ruminations and ego-defensive avoidant responses" (Sinclair, 1971, p. 98), though with their ideal of personal orderliness more visionary. Unfortunately their lowered teaching anxiety may have resulted in false feelings of security and achievement as they had not yet faced the challenges, traumas and attendant responsibilites and demands of full-time teaching. Results from this study suggest that it takes a minimum of approximately nine weeks for student-teachers in the ED. 405 course to achieve what may be durable and desirable decrements in teaching anxiety, and twelve weeks for positive trends and significant changes in professional self-concept and self-concept to appear. An analysis of the open-ended statements adds weight to this argument.

Are there pressure points in the practicum? Although few significant undesirable decrements were reported it would seem that the relatively high level of anxiety at the mid-point of the practicum (week 6), the negative trends in the actual and discrepancy scales of professional self-concept and

self-concept from pretest to week 6, and the more negative reporting and greater concern for self in the first half of the practicum, all point to the early period of full-time teaching (approximately weeks 4 to 7) as a potential danger period. That the majority of student-teachers pass through this period and meet the prescribed goal of the course adds credence to the oft-stated view that the Simon Fraser Program (and any other program where self-concepts remain intact or improve) contains the highly appropriate elements of: an individually tailored, gradual introduction to full-time teaching; expert guidance and support from selected and trained teaching triad members; and a time span that is long enough to allow the development and adoption of appropriate teaching behaviors and an understanding of the realities of a classroom.

> One of the most fulfilling experiences was to suddenly feel everything was falling into place and that I felt part of the school (week 12).

Limitations of the Study

The findings reported in this study and subsequent generalizations and applications may be limited by the following factors:

(a) Results are based on group means and do not examine individual performances. The authors of the semantic differential employed in this study recommend that "at present, the scales be used only for research purposes in hypothesis testing and evaluation studies and not for individual measurement" (Elsworth and Coulter, 1977, p. 53).

(b) It is not known whether student-teachers would be able to achieve the course objectives in less than the current three months without suffering bruising of their professional self-concept and self-concept. The question of individual pacing should be examined further.

(c) The lack of a control group prevents a clear statement that maturation factors were not responsible for the detected changes. The dominance of the practicum and the lack of any historically significant event (see below) suggests that program factors were responsible for the changes. It is difficult to identify an appropriate control group though investigations into this problem would be useful.

(d) A mid-term break of one week occurred after 11 weeks of the practicum had been completed. It is possible that some classroom teachers took over from their student-teachers when schools resumed thereby limiting the teaching experiences of those student-teachers.

(e) It is not known whether the Simon Fraser University student-teachers or the schools attached to the program possess unique characteristics. Comparative studies would be of interest but would be surrounded by design and technical difficulties. One should be very cautious if attempting to

apply the results of this study to other settings, particularly when characteristics impinging on the program are not fully understood.

(f) Although the sample represented a substantial and constant proportion of the population in the course it is not known if the student-teachers who did not participate differed significantly from the sample. However as all respondents were volunteers and as a strong emphasis was placed on confidentiality, a high degree of confidence may be placed in the results. It is possible that the respondents completed the questionnaires more conscientiously than would have been the case had all members of the population been "required" to participate.

(g) The study examined only one component of the total program.

(h) The relative lack of negative results may suggest that the course is undemanding, non-threatening and weak. Further, the use of a pass/withdraw system may offer little challenge to some participants. This notion does not appear to be supported by the comments received during the practicum.

(i) As some student-teachers withdrew from the course before completing a posttest it is not known if they differed from the respondents who remained in the study.

Recommendations for Future Research

It is suggested that potentially profitable research may be undertaken in the following areas:

(a) A longitudinal study of student-teachers/teachers from the time of admission to at least the end of their first year of full-time teaching. As the present study has detected changes during a program component further studies using randomly-formed groups for testing at regular intervals may be beneficial. A longitudinal study may also encourage and facilitate the development of a combined preservice-induction-inservice program, and re-examine the role of other practicum and course participants.

(b) A study of optimal levels of anxiety and professional self-concept. It is possible that student-teachers and teachers who saw themselves as very clear, satisfied, ordered, supportive and calm may not be receptive to constructive criticism and advice.

(c) A comparison of the two major Simon Fraser University program structures. As the major components appear in different sequences (Spring intake - ED. 401/2, ED. 404 and ED. 405; Fall intake - ED. 401/2, ED. 405 and ED. 404) a comparison of student-teachers proceeding through the two patterns may be fruitful. It may be shown to be advantageous to place a substantial break between the two practica, or to schedule them close together to allow student-teachers to build upon their initial experiences as soon as possible.

(d) Small group intensive research in order to identify individual concerns and achieve further insights into the process of socialization not revealed by global measures.

(e) An examination of changes during an open-ended practicum where the length is determined solely by the time it takes a student-teacher to achieve

specific objectives.

(f) A study of changes during a program component using randomly-formed groups with one controlled characteristic, for example, sex or various levels of academic background. Further knowledge of the characteristics of the population would facilitate subsequent and broader applications of research findings.

(g) The identification of suitable control groups for future research.

APPENDIX A

Simon Fraser University Professional Development Program Objectives

Appendix A: Simon Fraser University Professional Development Program Objectives

1. Admission and Withdrawal: Procedures and Objectives

(i) Admission to the Program

"Objectives to be attained prior to entry into the program:

A. Students shall be basically literate in the English Language. This means that all students shall have a basic command of English and that all students shall have taken at least six semester hours of course work in English at the university level or its equivalent.

Students whose native language is not English shall demonstrate their competence in English by satisfying the above requirement.

In addition, students may be asked to undertake a test such as TOEFL.

B. Students shall have completed a minimum of 60 semester hours of academic course work at the university or college level. Students undertaking to teach at the secondary school level shall either have completed an undergraduate degree or shall be able to complete degree requirements during the Professional year" (Dobbs, O'Sullivan and Tomsich, Note 7, p. 17).

(ii) Withdrawal from the Program

"A few students do not complete the program; they withdraw either voluntarily or by request. The Pass/Withdraw procedures are such that students' grade point averages are not affected by their withdrawal from the Program. All forms related to withdrawal are available from the coordinators.

A. Voluntary Withdrawal: Students may withdraw voluntarily from the Program for a variety of reasons including poor health, personal concern or dislike of teaching.

To formalize voluntary withdrawal:

i. The student informs his school associate, the school principal, his faculty associate, his coordinator and the Registrar's Office of his intention to withdraw;
ii. The student completes withdrawal forms required by both a coordinator and the Registrar's Office;
iii. A coordinator sends the Professional Development Program withdrawal form, including a statement regarding readmission to the Program, to the Faculty of Education's Admissions Office.

B. Recommended Withdrawal: When a student lacks competence or when competence is in doubt, the following procedures are initiated:

i. The faculty associate in conference with the school associate and student informs the student that his competence is being questioned and discusses with him the specific nature of the deficiencies;

ii. The faculty associate immediately informs the coordinator who will arrange to visit the student and school associate with the faculty associate in attendance;

iii. At this time, if necessary, the NOTICE TO STUDENT form is completed to provide the student with clear goals for improvement, and to assure that everyone involved is aware of these goals;

iv. The student is to be given adequate time and opportunity to overcome the deficiencies. During this time, second opinions from the school and University are sought, e.g., another teacher or the principal and another faculty associate or the coordinator.

If the deficiencies are not remedied, specific examples of inadequate teaching performance to be used in supporting a recommendation for withdrawal are conveyed to the student.

v. On the expiry date of the NOTICE TO STUDENT the coordinator, faculty and school associates convey their decision to the student teacher. If withdrawal is recommended, the appropriate form is completed and signed by all parties.

vi. The student has the right to appeal the decision and should contact the administrative coordinator to clarify procedure and set a hearing date" (Kaser-Cannon and Marsh, Note 6, pp. 20-21).

2. Objectives for Course ED. 401

By the end of ED. 401 the student-teacher should be able to:

"1. Observe a learning situation or an episode of teaching and discuss it in terms of goals or objectives, strategies used, outcomes attained, and possible changes in approach. The student will have to become an effective and critical observer;

2. Observe an episode of his own classroom behaviour in a similar fashion to #1 above, or at least he should be able to accept and understand feedback from observers of his classroom behaviour.

3. Plan a short sequence of teaching/learning activity, using a particular, coherent approach, whether it be individualized instruction, student-directed learning, or didactic in nature.

4. Describe several modes of teaching behaviour or styles of teaching or of creating opportunities for learning.

5. Undertake a reasonable inventory of his personal needs for further development of skill or knowledge at that stage of his experience in the program. He should be able to state a set of personal objectives for Education 402, and for 405" (Denos, Note 1, p. 12).

3. Objectives for Course ED. 402

(i) Overall objectives

By the end of ED. 402 the student teacher should:

"1. Have at least an outline plan for his professional development during Education 405 or 404. This plan should have been discussed with his seminar leader and his peers if possible.

2. Be able to plan a sequence of instruction or a program for a set of learning experiences which is designed to achieve certain objectives.

3. Have an initial familiarity with the curriculum for the area or level in which he expects to teach.

4. Have developed a first level set of basic communication and process skills and have had an opportunity to practice these with his peers.

5. Have at least one system or set of tools for the analysis of teaching/learning situations, and be aware of some others.

6. Have an initial repertoire of methods and approaches in some of the key areas for the field in which he hopes to teach, i.e., a basic set of reading instruction skills if he hopes to teach primary grades.

7. Have had an opportunity to develop skill and experience in at least one elective area which he has selected for his personal growth and satisfaction, i.e., art, music or environmental education - some area outside his normal gamut of experience.

(ii) Specific objectives

Although each curriculum workshop or study group will have a particular focus or content theme, there will be commonality with regards to program objectives for all curriculum workshops and for all study groups.

a) Curriculum workshop . . .

Students demonstrating a successful performance in their

curriculum workshops will have completed the four objectives common to each curriculum workshop as well as any specific assignments identified by each curriculum workshop instructor. Therefore, students successfully completing a curriculum workshop will:

- have had an opportunity to examine activities and strategies described for representative segments of the curriculum area.
- be able to describe the curriculum stated for their subject area/grade level.
- have had contact with major texts and selected materials which apply to the particular curriculum area.
- be able to describe the role of the teacher in the development of curriculum materials.

b) Study Group . . .

Students demonstrating a successful performance in their study group will have completed the four objectives common to each study group as well as any specific assignments identified by each study group instructor. Therefore, all students successfully completing the study group will be able to:

- write a procedure for assessing student needs
- write or state educational objectives
- design an instructional strategy
- construct procedures for evaluating student learning
- design a procedure to analyze teaching performance"

(Simon Fraser University, Note 10, p. 4).

4. Objectives for Course ED. 404

"Education 404 is the 'Academic Semester' of the Professional Development Program. It is also a semester in which many teachers return to the University for a further professional development, either to upgrade certification, or to complete undergraduate degree requirements. This 'mix' of student types and needs is a fact of the semester. The objectives discussed here are stated for students in the Professional Development Program, and NOT for all persons who may take course work or programs that semester.

1. Students will undertake completion of any formal course work requirements necessary for the student to be recommended for a teaching certificate.

2. Students will undertake any course work or program requirements for students in particular streams of programs:

for example: particular "Designs for Learning Courses" needed for the student in the area of teaching in which he hopes to operate; core courses in Minors programs, etc.

3. In general, Education 404 will allow students to complete a group of requirements, where these exist, while allowing the student an opportunity to develop special competency or specialization in an area of his choice. Each student will be urged to select an area for special emphasis in 404. This area may be related to the personal plan which he developed during 405.

5. Student choices or program plans for Education 404 will be developed in consultation with:

   Faculty Advisors;
   Faculty Associates;
   School Associate" (Bobbs, O'Sullivan and Tomsich, Note 7, pp. 21-22).

5. Objectives for Course ED. 405

"By the end of Education 405 the student (teacher) should be able to:

1. Develop a plan for an extended sequence of teaching and learning at the age/grade or subject area level in which he expects to function. This plan should include:
   - a statement of objectives in terms of learning outcomes;
   - a set of activities, experiences, etc. designed to achieve the objectives;
   - a list of needed resources, human and material required to support the teaching-learning program;
   - an evaluation procedure which relates clearly to the stated objectives, but which is appropriate to the needs of the students and the teacher;
   - an indication of how individual differences in mode and rate of learning, as well as in past experience, attitude, etc., will be provided for in the program plan.
   - the relationship of the planned sequence to the overall curriculum, school program, or other larger expectations of the school.
2. Operate the planned program of instruction in a representative class setting without excessive assistance or supervision.
3. Develop a plan for the evaluation of his own performance in respect to the plan, and set in motion some program of self-evaluation during the teaching-learning sequence.
4. Develop a set of his own further personal and professional development, either during Education 404, or after leaving P.D.P. during the first phase of his teaching career.

By the end of Education 405, the student should be judged to be capable of functioning as a novice professional teacher, albeit with clear needs for further professional development, and a clear personal sense of those needs" (Denos, Note 1, p. 18).

APPENDIX B

Characteristics of the Sample - Selected Details

Appendix B: Characteristics of the Sample - Selected Details

Table 38: Distribution of Pretest Respondents by Sex

Sex	N	%
Female	150	71.1
Male	61	28.9
Total	211	100

Table 39: Distribution of Pretest Respondents by Teaching Level

Level	N		%	
Elementary				
Grades 1 - 4	87		41.2	
Grades 5 - 7	74		35.1	
Sub-total		161		76.3
Secondary				
Grades 8 - 10	21		10	
Grades 11 - 12	29		13.7	
Sub-total		50		23.7
Total		211		100

Table 40: Distribution of Pretest Respondents by Location

Location	N	%
Lower mainland	111	52.6
Interior sites	100	47.4
Total	211	100

Table 41: Distribution of Pretest Respondents by Work Experience (Years of Fulltime Employment)

Years	N	%	Cum. %
0	43	20.4	20.4
1	26	12.3	32.7
2	35	16.6	49.3
3	22	10.4	59.7
4	20	9.5	69.2
5	19	9	78.2
6	8	3.8	82
7	7	3.3	85.3
8	5	2.4	87.7
9	4	1.9	89.6
10	7	3.3	92.9
11	1	.5	93.4
12	1	.5	93.8
13	2	.9	94.8
14	1	.5	95.3
15	2	.9	96.2
16	1	.5	96.7
18	3	1.4	98.1
19	2	.9	99.1
22	1	.5	99.5
24	1	.5	100
Totals	211	100	

Table 42: Distribution of Pretest Respondents By Age

Age yrs.	N	%	Cum. %
< 21	21	10	10
21-23	83	39.3	49.3
24-26	47	22.3	71.6
27-29	25	11.8	83.4
30-32	12	5.7	89.1
33-35	8	3.8	92.9
> 35	15	7.1	100
Totals	211	100	

APPENDIX C

Instruments Employed in the Study.

Home phone: 294 4500

SIMON FRASER UNIVERSITY, BURNABY, B.C., CANADA V5A 1S6
FACULTY OF EDUCATION; 291-3395

December, 1978

Dear 405 Student Teachers,

Those of you who were able to attend a 402 meeting at S.F.U. in December will recall my appeal for your valuable assistance.

I am a graduate student on leave from my employer, Sturt College of Advanced Education, South Australia, to study aspects of the practicum at Simon Fraser University. Your Professional Development Program has a high reputation and is widely considered to be an effective and innovative form of teacher preparation.

One of the program's innovative features is the length of the 405 major practicum. My thesis study has been designed to measure changes in your judgement of certain concepts during the 13 week practicum.

I am absolutely dependent upon your participation in this study! I would like to assure you that all responses will be kept strictly confidential. Your Professors, Faculty Associates and School Associates will never have access to these documents and will never be able to trace responses. I have asked that you show your name only to enable me to match first round and final round responses. Once all responses have been numerically coded for analysis your name will be removed from the questionnaire and no record will be kept.

The first set of questionnaires is attached. I would be grateful if you would complete them on Tuesday 9th January (it should take about thirty minutes) and return them to me urgently using the postage-paid addressed envelope enclosed.

Once I receive your first round responses I will assign you randomly to a subgroup. Members of each subgroup will be asked to complete one final set of questionnaires during or at the end of the practicum.

Looking forward to receiving your help.

Yours truly,

Bill Tattersall

STUDENT-TEACHING QUESTIONNAIRE

YOUR RESPONSES WILL BE KEPT STRICTLY CONFIDENTIAL. YOUR PROFESSORS, FACULTY ASSOCIATES AND SCHOOL ASSOCIATES WILL NOT HAVE ACCESS TO INDIVIDUAL RESPONSES. YOUR NAME IS NEEDED FOR ESSENTIAL CODING AND GROUPING TECHNIQUES ONLY.

Office use only ☐☐☐☐ 1 2 3 4

1. Name: _____

(for questions 2-6 please check the appropriate box.)

2. What is your age?

- ☐ Under 21 years
- ☐ 21-23 years
- ☐ 24-26 years
- ☐ 27-29 years
- ☐ 30-32 years
- ☐ 33-35 years
- ☐ Over 35 years

☐ 5

3. What is your sex?

- ☐ Female
- ☐ Male

☐ 6

4. At what level are you teaching in 405?

- ☐ Elementary Grades 1,2,3 or 4
- ☐ Elementary Grades 5,6 or 7
- ☐ Sec. Junior High
- ☐ Sec. Senior High

☐ 7

5. Where are you located for 405?

- ☐ Lower Mainland /Vanc. Is.
- ☐ Chilliwack
- ☐ Cranbrook
- ☐ Dawson Creek
- ☐ Enderby
- ☐ Kamloops
- ☐ Kelowna
- ☐ Nelson
- ☐ Penticton
- ☐ Prince George
- ☐ Salmon Arm
- ☐ Vernon

☐☐ 8 9

6. Where were you located for 401/402?

- ☐ Lower Mainland / Van. Is.
- ☐ Chilliwack
- ☐ Cranbrook
- ☐ Dawson Creek
- ☐ Enderby
- ☐ Kamloops
- ☐ Kelowna
- ☐ Nelson
- ☐ Penticton
- ☐ Prince George
- ☐ Salmon Arm
- ☐ Vernon

☐☐ 10 11

7. Date of completion of these forms: _____

8. How many years of work experience have you had before commencing the P.D.P.? (Please enter number in box: ☐ years.)

☐☐ 12 13

PROSPECTIVE TEACHER QUESTIONNAIRE

YOUR RESPONSES WILL BE KEPT STRICTLY CONFIDENTIAL

Instructions: Please read each question carefully. Answer every question, even if it seems vague to you or difficult to answer. Place the number which best represents your feelings today on the line next to each statement.

Use the following number scale for ALL questions:

NEVER = 1; INFREQUENTLY = 2; OCCASIONALLY = 3; FREQUENTLY = 4; ALWAYS = 5

STATEMENTS:	RESPONSES
1. I feel calm and collected when I think about holding parent-teacher conferences.	_____
2. If I have trouble answering a pupil's question I find (will find) it difficult to concentrate on questions that follow.	_____
3. I feel uncomfortable when I speak before a group.	_____
4. I feel (would feel) calm when I am (if I were) preparing lessons.	_____
5. I'm worried whether I can be a good teacher.	_____
6. I feel sure I will find teaching a satisfying profession.	_____
7. I would feel calm and collected if a pupil's parents observed me in my classroom.	_____
8. I feel inferior to other preservice student teachers in my teacher preparation course.	_____

(Please go on to next page.)

Use the following number scale for ALL questions:

NEVER = 1; INFREQUENTLY = 2; OCCASIONALLY = 3; FREQUENTLY = 4;

ALWAYS = 5

STATEMENTS:	RESPONSES
9. I feel that pupils will follow my instructions.	_____
10. I feel secure with regard to my ability to keep a class under control.	_____
11. I'm less happy teaching than I thought I'd be.	_____
12. I feel nervous when I am being observed by my Faculty Associate.	_____
13. I feel confident about my ability to improvise in the classroom.	_____
14. I feel that other teachers think (will think) that I'm very competent.	_____
15. I feel (would feel) panicky when a pupil asks me a question I can't (couldn't) answer.	_____
16. I feel anxious because I don't know yet whether I really want to be a teacher.	1
17. I feel better prepared for teaching than other student teachers in my teacher preparation program.	_____
18. Lack of rapport with my pupils is (will be) one of my biggest worries.	_____
19. I would feel anxious if the Principal informed me he was coming to my class to observe me.	_____

(Please go on to the next page.)

Use the following number scale for ALL questions:

NEVER = 1; INFREQUENTLY = 2; OCCASIONALLY = 3; FREQUENTLY = 4;

ALWAYS = 5

STATEMENTS:	RESPONSES
20. I find (would find) it easy to speak up in the staffroom.	_____
21. I worry about being able to keep the pupils interested in what I teach (will teach) them.	_____
22. I find (would find) it easy to admit to the class that I don't know the answer to a question a pupil asks.	_____
23. Deciding how to present information in the classroom makes (would make) me feel uncertain.	_____
24. I feel I have (would have) good recall of the things I know when I am in front of the class.	_____
25. I feel I am (will be) as competent in the classroom as other student teachers in my teacher preparation program.	_____
26. I'm concerned about how to use my testing of pupils as a useful indication of how effectively I'm teaching them.	_____
27. I'm worried that differences in background between my pupils and me prevents me (will prevent me) from teaching effectively.	1
28. I am certain that my own personal hang-ups do not (will not) hinder my teaching effectiveness.	_____
29. I'm uncertain whether I can (will be able to) tell the difference between really seriously disturbed pupils and those who are merely 'goofing-off' in class.	_____

(Please go on to page 5.)

QUESTIONNAIRE FOR STUDENT TEACHERS

In this questionnaire, you are asked to judge certain self concepts against a series of descriptive scales. There are five pages in the questionnaire. At the top of the next four pages you will find a different concept and beneath it a set of descriptive scales.

You are asked to rate yourself on the seven point scale as indicated. Firstly decide which side of the scale better describes you and then decide to what extent you see yourself in that way. For example:

If you feel that you are very relaxed you might place your check as follows:

tense :____:____:____:____:____:____:_X_: relaxed

If you feel that you are rather tense you might check as follows:

tense :____:_X_:____:____:____:____:____: relaxed

If you feel that you are only slightly tense as opposed to relaxed you might check as follows:

tense :____:____:_X_:____:____:____:____: relaxed

If you consider that you are neutral on the scale or that the scale is completely irrelevant to you, check the middle space on the scale:

tense :____:____:____:_X_:____:____:____: relaxed

But please use this middle point as infrequently as possible.

OTHER POINTS TO NOTE

+ Place your crosses in the middle of the spaces

Like this Not like this

:_X_:____:____:____:____:____:_X___:

+ Do not hesitate to use extreme ends of the scale whenever these seem appropriate.

+ Work as quickly as possible for it is your spontaneous response that is wanted. Do not take too long on any one rating. On the other hand, please do not be careless as it is your true impression that is wanted.

+ Please be sure you mark every scale for each concept - do not omit any.

MYSELF

warm	:	:	:	:	:	:	:	cool
chaotic	:	:	:	:	:	:	:	orderly
comforting	:	:	:	:	:	:	:	reproaching
friendly	:	:	:	:	:	:	:	hostile
free	:	:	:	:	:	:	:	constrained
spirited	:	:	:	:	:	:	:	apathetic
lucid	:	:	:	:	:	:	:	obscure
systematic	:	:	:	:	:	:	:	random
insulting	:	:	:	:	:	:	:	esteeming
creative	:	:	:	:	:	:	:	uncreative
disorganized	:	:	:	:	:	:	:	organized
conventional	:	:	:	:	:	:	:	unconventional
indifferent	:	:	:	:	:	:	:	eager
satisfied	:	:	:	:	:	:	:	dissatisfied
vague	:	:	:	:	:	:	:	clear
prepared	:	:	:	:	:	:	:	unprepared
jumbled	:	:	:	:	:	:	:	arranged
puzzling	:	:	:	:	:	:	:	informing
restrained	:	:	:	:	:	:	:	liberated
blurry	:	:	:	:	:	:	:	sharp
fresh	:	:	:	:	:	:	:	stale
mean	:	:	:	:	:	:	:	kind
adaptable	:	:	:	:	:	:	:	rigid
enthusiastic	:	:	:	:	:	:	:	unenthusiastic
inert	:	:	:	:	:	:	:	energetic
usual	:	:	:	:	:	:	:	unusual
imaginative	:	:	:	:	:	:	:	unimaginative
efficient	:	:	:	:	:	:	:	inefficient
discontented	:	:	:	:	:	:	:	contented
conforming	:	:	:	:	:	:	:	non-conforming
rewarding	:	:	:	:	:	:	:	punishing
fulfilled	:	:	:	:	:	:	:	frustrated

MYSELF AS I WOULD LIKE TO BE

warm	:	:	:	:	:	:	:	cool
chaotic	:	:	:	:	:	:	:	orderly
comforting	:	:	:	:	:	:	:	reproaching
friendly	:	:	:	:	:	:	:	hostile
free	:	:	:	:	:	:	:	constrained
spirited	:	:	:	:	:	:	:	apathetic
lucid	:	:	:	:	:	:	:	obscure
systematic	:	:	:	:	:	:	:	random
insulting	:	:	:	:	:	:	:	esteeming
creative	:	:	:	:	:	:	:	uncreative
disorganized	:	:	:	:	:	:	:	organized
conventional	:	:	:	:	:	:	:	unconventional
indifferent	:	:	:	:	:	:	:	eager
satisfied	:	:	:	:	:	:	:	dissatisfied
vague	:	:	:	:	:	:	:	clear
prepared	:	:	:	:	:	:	:	unprepared
jumbled	:	:	:	:	:	:	:	arranged
puzzling	:	:	:	:	:	:	:	informing
restrained	:	:	:	:	:	:	:	liberated
blurry	:	:	:	:	:	:	:	sharp
fresh	:	:	:	:	:	:	:	stale
mean	:	:	:	:	:	:	:	kind
adaptable	:	:	:	:	:	:	:	rigid
enthusiastic	:	:	:	:	:	:	:	unenthusiastic
inert	:	:	:	:	:	:	:	energetic
usual	:	:	:	:	:	:	:	unusual
imaginative	:	:	:	:	:	:	:	unimaginative
efficient	:	:	:	:	:	:	:	inefficient
discontented	:	:	:	:	:	:	:	contented
conforming	:	:	:	:	:	:	:	non-conforming
rewarding	:	:	:	:	:	:	:	punishing
fulfilled	:	:	:	:	:	:	:	frustrated

MYSELF AS A TEACHER

warm	:	:	:	:	:	:	:	cool
chaotic	:	:	:	:	:	:	:	orderly
comforting	:	:	:	:	:	:	:	reproaching
friendly	:	:	:	:	:	:	:	hostile
free	:	:	:	:	:	:	:	constrained
spirited	:	:	:	:	:	:	:	apathetic
lucid	:	:	:	:	:	:	:	obscure
systematic	:	:	:	:	:	:	:	random
insulting	:	:	:	:	:	:	:	esteeming
creative	:	:	:	:	:	:	:	uncreative
disorganized	:	:	:	:	:	:	:	organized
conventional	:	:	:	:	:	:	:	unconventional
indifferent	:	:	:	:	:	:	:	eager
satisfied	:	:	:	:	:	:	:	dissatisfied
vague	:	:	:	:	:	:	:	clear
prepared	:	:	:	:	:	:	:	unprepared
jumbled	:	:	:	:	:	:	:	arranged
puzzling	:	:	:	:	:	:	:	informing
restrained	:	:	:	:	:	:	:	liberated
blurry	:	:	:	:	:	:	:	sharp
fresh	:	:	:	:	:	:	:	stale
mean	:	:	:	:	:	:	:	kind
adaptable	:	:	:	:	:	:	:	rigid
enthusiastic	:	:	:	:	:	:	:	unenthusiastic
inert	:	:	:	:	:	:	:	energetic
usual	:	:	:	:	:	:	:	unusual
imaginative	:	:	:	:	:	:	:	unimaginative
efficient	:	:	:	:	:	:	:	inefficient
discontented	:	:	:	:	:	:	:	contented
conforming	:	:	:	:	:	:	:	non-conforming
rewarding	:	:	:	:	:	:	:	punishing
fulfilled	:	:	:	:	:	:	:	frustrated

THE TEACHER I WOULD LIKE TO BE

warm	: : : : : : :	cool
chaotic	: : : : : : :	orderly
comforting	: : : : : : :	reproaching
friendly	: : : : : : :	hostile
free	: : : : : : :	constrained
spirited	: : : : : : :	apathetic
lucid	: : : : : : :	obscure
systematic	: : : : : : :	random
insulting	: : : : : : :	esteeming
creative	: : : : : : :	uncreative
disorganized	: : : : : : :	organized
conventional	: : : : : : :	unconventional
indifferent	: : : : : : :	eager
satisfied	: : : : : : :	dissatisfied
vague	: : : : : : :	clear
prepared	: : : : : : :	unprepared
jumbled	: : : : : : :	arranged
puzzling	: : : : : : :	informing
restrained	: : : : : : :	liberated
blurry	: : : : : : :	sharp
fresh	: : : : : : :	stale
mean	: : : : : : :	kind
adaptable	: : : : : : :	rigid
enthusiastic	: : : : : : :	unenthusiastic
inert	: : : : : : :	energetic
usual	: : : : : : :	unusual
imaginative	: : : : : : :	unimaginative
efficient	: : : : : : :	inefficient
discontented	: : : : : : :	contented
conforming	: : : : : : :	non-conforming
rewarding	: : : : : : :	punishing
fulfilled	: : : : : : :	frustrated

FINAL ROUND: STUDENT TEACHING QUESTIONNAIRE

(Office use)

INDIVIDUAL RESPONSES WILL BE KEPT STRICTLY CONFIDENTIAL ☐☐☐☐

1. Name (for matching purposes only): _____
2. Date questionnaire completed: _____
3. Academic Record: (i) Accum. hrs before P.D.P. admission _____
   (ii) Degrees held _____ (iii) Majors _____ (iv) Univ/Coll. _____
4. I am very interested in investigating the impact of the 405 practicum on how you view yourself as a teacher. Consequently I am asking all student-teachers in this study to think about what has happened to them in the practicum. Would you please describe briefly a dominant incident or any number of representative incidents that to you typify your experiences in the practicum so far.

(Use the back of this page if you need more space.) . . ./2

APPENDIX D

Dimension Key and 32 Adjectival Pairs in the Elsworth-Coulter Semantic Differentials

Appendix D

Table 43: Dimension Key and 32 Adjectival Pairs in the Elsworth-Coulter Semantic Differentials

Adjectival Pairs			Item #	Dimension Code
*conforming	.....	non-conforming	1	N7
*vague	.....	clear	2	CL5
*puzzling	.....	informing	3	CL5
lucid	.....	obscure	4	CL5
*blurry	.....	sharp	5	CL5
*insulting	.....	esteeming	6	W3
warm	.....	cool	7	W3
satisfied	.....	dissatisfied	8	S4
comforting	.....	reproaching	9	W3
*restrained	.....	liberated	10	N7
systematic	.....	random	11	O2
*inert	.....	energetic	12	E6
fulfilled	.....	frustrated	13	S4
*usual	.....	unusual	14	N7
*indifferent	.....	eager	15	E6
friendly	.....	hostile	16	W3
*jumbled	.....	arranged	17	O2
fresh	.....	stale	18	E6
enthusiastic	.....	unenthusiastic	19	E6
*mean	.....	kind	20	W3
rewarding	.....	punishing	21	W3
*discontented	.....	contented	22	S4
*chaotic	.....	orderly	23	O2
free	.....	constrained	24	N7
adaptable	.....	rigid	25	CR1
imaginative	.....	unimaginative	26	CR1
prepared	.....	unprepared	27	O2
*conventional	.....	unconventional	28	N7
creative	.....	uncreative	29	CR1
*disorganized	.....	organized	30	O2
spirited	.....	apathetic	31	E6
efficient	.....	inefficient	32	O2

• reversed items

Key to Dimension Code:

Dimensions			
1. Creativity	CR1	3
2. Orderliness	O2	6
3. Warmth-Supportiveness	W3	6
4. Satisfaction	S4	3
5. Clarity	CL5	4
6. Energy-Enthusiasm	E6	5
7. Non-conformity	N7	5
Total Scale		32

APPENDIX E

Timetable for the Study

Appendix E: Timetable for the Study

1978

November	Initial planning; draft instruments; commence literature search.
Mid-November	Submit draft of proposal to Senior Supervisor for approval.
November 15	Seek permission from Director of Professional Development Program to approach ED. 405 Course student-teachers.
November 27	Permission granted; meet with coordinators to discuss study.
November 29	Instruments submitted for printing.
December 7	Attend meeting of interior Faculty Associates - outline study.
December 8	Attend three meetings of lower mainland Faculty Associates
December 11	Address lower mainland student-teachers - outline study and call for volunteers.
December 12-19	Collate materials for pretest.
December 19	Commence preparation of envelopes for posting.
December 28	Post Interior pretests to individual student-teachers commencing Professional Development Program on January 8th, 1979.

1979

January 3	Final day for obtaining Interior ED. 405 appointments - eleven sites.
January 3	Post interior pretests to individual student-teachers commencing Professional Development Program on January 15/16, 1979
	Post lower mainland pretests to individual student-teachers commencing Professional Development Program on January 8/9, 1979
January 5	Final day for obtaining lower mainland ED. 405 appointments.
January 8	First day of ED. 405.
January 23	Pretest returns distributed randomly to four posttest groups.

January 23	Group One posttest (lower mainland and early interior) posted for completion on January 29.
January 25	Group One posttest (late interior) posted for completion on February 5.
February 1	Reminders sent to Group One (lower mainland - interior) where necessary.
February 9	Group Two posttest (lower mainland and early interior) posted for completion on February 19.
February 10	Reminders posted to Group One (late interior) where necessary.
February 14	Group Two posttest (late interior) posted for completion on February 26.
February 23	Reminders posted to Group Two (lower mainland and early interior) where necessary.
March 2	Reminders posted to Group Two (late interior) where necessary.
March 4	Group Three posttest (lower mainland and early interior) posted for completion on March 12.
March 9	Group Three posttest (late interior) posted for completion on March 19.
March 19	Reminders posted to Group Three (lower mainland and early interior) where necessary.
March 26	Reminders posted to Group Three (late interior) where necessary.
March 27	Group Four posttest (lower mainland and early interior) posted for completion on April 6.
March 30	Group Four posttest (late interior) posted for completion on April 12.
	Letters to Faculty Associates requesting assistance in prompt return of Group Four posttests.
April 12	Last day of ED. 405.
April 20	Complete coding and recording. Submit results for punching and analysis.

APPENDIX F

Analysis of Variance Between and Within Pretest Groups

Appendix F: Analysis of Variance Between and Within Pretest Groups

Table 44: Analysis of Variance Between and Within Pretest Groups, Teaching Anxiety

Source	df	Sum of squares	Mean squares	F
Between groups	3	407.49	135.83	.97
Within groups	191	26702.95	139.81	
Total	194	27110.44		

Note:

N = 195

Table 45: Analysis of Variance Between and Within Pretest Groups, Elsworth-Coulter Semantic Differential, Professional Self-concept Actual

Source	df	Sum of squares	Mean squares	F
Dimension 1: Creativity				
Between groups	3	18.19	6.06	.74
Within groups	191	1576.21	8.25	
Total	194	1594.40		
Dimension 2: Orderliness				
Between groups	3	54.89	18.30	.66
Within groups	191	5261.09	27.55	
Total	194	5315.98		
Dimension 3: Warmth-supp.				
Between groups	3	26.67	8.89	.56
Within groups	191	3052.09	15.98	
Total	194	3078.76		
Dimension 4: Satisfaction				
Between groups	3	16.84	5.61	.37
Within groups	191	2866.31	15.01	
Total	194	2883.15		
Dimension 5: Clarity				
Between groups	3	28.39	9.47	.72
Within groups	191	2514.36	13.16	
Total	194	2542.75		
Dimension 6: Energy-enth.				
Between groups	3	44.01	14.67	1.11
Within groups	191	2521.61	13.20	
Total	194	2565.62		
Dimension 7: Non-conform.				
Between groups	3	61.41	20.47	.85
Within groups	191	4595.25	24.06	
Total	194	4656.66		
Scale total:				
Between groups	3	788.25	262.75	.60
Within groups	191	83749.32	438.48	
Total	194	84537.56		

Note:

N = 195

Table 46: Analysis of Variance Between and Within Pretest Groups, Elsworth-Coulter Semantic Differential, Professional Self-concept Ideal

Source	df	Sum of squares	Mean squares	F
Dimension 1: Creativity				
Between groups	3	1.60	.53	.62
Within groups	191	164.33	.86	
Total	194	165.93		
Dimension 2: Orderliness				
Between groups	3	22.75	7.58	1.40
Within groups	191	1036.35	5.42	
Total	194	1059.10		
Dimension 3: Warmth-supp.				
Between groups	3	23.95	7.98	1.25
Within groups	191	1225.20	6.42	
Total	194	1249.15		
Dimension 4: Satisfaction				
Between groups	3	4.56	1.52	.55
Within groups	191	530.32	2.77	
Total	194	534.88		
Dimension 5: Clarity				
Between groups	3	6.23	2.08	.70
Within groups	191	565.45	2.96	
Total	194			
Dimension 6: Energy-enth.				
Between groups	3	13.25	4.42	1.50
Within groups	191	562.91	2.95	
Total	194	576.16		
Dimension 7: Non-conform.				
Between groups	3	62.44	20.18	.89
Within groups	191	4446.25	23.28	
Total	194	4508.69		
Scale total:				
Between groups	3	432.60	144.20	1.86
Within groups	191	14843.41	77.71	
Total	194	15276.01		

Note:

N = 195

Table 47: Analysis of Variance Between and Within Pretest Groups, Elsworth-Coulter Semantic Differential, Professional Self-concepts Discrepancy

Source	df	Sum of squares	Mean squares	F
Dimension 1: Creativity				
Between groups	3	10.46	3.49	.46
Within groups	191	1464.27	7.69	
Total	194	1474.73		
Dimension 2: Orderliness				
Between groups	3	30.12	10.04	.45
Within groups	191	4240.66	22.20	
Total	194	4270.78		
Dimension 3: Warmth-supp.				
Between groups	3	51.16	17.05	1.54
Within groups	191	2116.03	11.07	
Total	194	2167.19		
Dimension 4: Satisfaction				
Between groups	3	35.94	11.98	.99
Within groups	191	2305.04	12.07	
Total	194	2340.98		
Dimension 5: Clarity				
Between groups	3	43.88	14.63	1.20
Within groups	191	2335.52	12.23	
Total	194	2379.40		
Dimension 6: Energy-enth.				
Between groups	3	33.45	11.15	.99
Within groups	191	2148.61	11.25	
Total	194	2182.06		
Dimension 7: Non-conform.				
Between groups	3	42.50	14.17	.55
Within groups	191	4905.15	25.68	
Total	194	4947.65		
Scale total:				
Between groups	3	684.48	228.16	.61
Within groups	191	71327.40	373.44	
Total	194	72011.88		

Note:

N = 195

Table 48: Analysis of Variance Between and Within Pretest Groups, Elsworth-Coulter Semantic Differential, Self-concept Actual

Source	df	Sum of squares	Mean squares	F
Dimension 1: Creativity				
Between groups	3	9.93	3.31	.45
Within groups	191	1408.73	7.38	
Total	194	1418.66		
Dimension 2: Orderliness				
Between groups	3	27.67	9.22	.32
Within groups	191	5454.78	28.56	
Total	194	5482.45		
Dimension 3: Warmth-supp.				
Between groups	3	5.63	1.88	.14
Within groups	191	2602.99	13.63	
Total	194	2608.62		
Dimension 4: Satisfaction				
Between groups	3	30.05	10.02	.77
Within groups	191	2502.24	13.10	
Total	194	2532.29		
Dimension 5: Clarity				
Between groups	3	6.86	2.29	.24
Within groups	191	1846.52	9.67	
Total	194	1853.38		
Dimension 6: Energy-enth.				
Between groups	3	21.41	7.14	.64
Within groups	191	2129.91	11.15	
Total	194	2151.32		
Dimension 7: Non-conform.				
Between groups	3	23.46	7.82	.27
Within groups	191	5485.72	28.72	
Total	194	5509.18		
Scale total:				
Between groups	3	150.20	50.07	.17
Within groups	191	56078.19	293.60	
Total	194	56228.39		

Note:

N = 195

Table 49: Analysis of Variance Between and Within Pretest Groups, Elsworth-Coulter Semantic Differential, Self-concept Ideal

Source	df	Sum of squares	Mean squares	F
Dimension 1: Creativity				
Between groups	3	.63	.21	.18
Within groups	191	225.91	1.18	
Total	194	226.54		
Dimension 2: Orderliness				
Between groups	3	31.18	10.39	1.35
Within groups	191	1471.24	7.70	
Total	194	1502.42		
Dimension 3: Warmth-supp.				
Between groups	3	12.26	4.09	.55
Within groups	191	1413.13	7.40	
Total	194	1425.39		
Dimension 4: Satisfaction				
Between groups	3	1.34	.55	.20
Within groups	191	436.77	2.29	
Total	194	438.11		
Dimension 5: Clarity				
Between groups	3	9.01	3	.61
Within groups	191	934.32	4.89	
Total	194	943.33		
Dimension 6: Energy-enth.				
Between groups	3	5.10	1.70	.47
Within groups	191	693.64	3.63	
Total	194	698.74		
Dimension 7: Non-conform.				
Between groups	3	22.30	7.43	.31
Within groups	191	4662.70	24.41	
Total	194	4685		
Scale total:				
Between groups	3	270.16	90.05	.90
Within groups	191	19219.98	100.62	
Total	194	19490.14		

Note:

N = 195

Table 50: Analysis of Variance Between and Within Pretest Groups, Elsworth-Coulter Semantic Differential, Self-concepts Discrepancy

Source	df	Sum of squares	Mean squares	F
Dimension 1: Creativity				
Between groups	3	11.86	3.96	.58
Within groups	191	1311.62		
Total	194	1323.48		
Dimension 2: Orderliness				
Between groups	3	72.03	24.01	1.15
Within groups	191	4000.95	20.95	
Total	194	4072.98		
Dimension 3: Warmth-supp.				
Between groups	3	26.77	8.92	.86
Within groups	191	1980.09	10.37	
Total	194	2006.86		
Dimension 4: Satisfaction				
Between groups	3	43.92	14.64	1.39
Within groups	191	2019.55	10.57	
Total	194	2063.48		
Dimension 5: Clarity				
Between groups	3	23.90	7.97	.97
Within groups	191	1574.84	8.25	
Total	194	1598.74		
Dimension 6: Energy-enth.				
Between groups	3	41.22	13.74	1.73
Within groups	191	1518.29	7.95	
Total	194	1559.51		
Dimension 7: Non-conform.				
Between groups	3	13.75	4.58	.25
Within groups	191	3446.92	18.05	
Total	194	3460.67		
Scale total:				
Between groups	3	645.40	215.13	1.02
Within groups	191	40422.04	211.63	
Total	194	41067.44		

Note:

N = 195

APPENDIX G

t Tests on Pretests Completed On-time and Late

Appendix G: *t* Tests on Pretests Completed on Time and Late

Table 51: *t* Tests on Pretests Completed on Time and Late, Teaching Anxiety

	n	Mean	S.D.	t-value
Completed:				
On time	168	68.55	12.06	
Late	27	68.30	10.45	.10

Note:

N = 195

Table 52: t Tests on Pretests Completed on Time and Late, Professional Self-concepts Actual and Ideal

	Professional Self-concepts					
	Actual			Ideal		
Dimension	Mean	S.D.	t-value	Mean	S.D.	t-value
Creativity						
On time[a]	16.94	2.86		20.56	.94	
Late[b]	17.82	2.84	-1.49	20.59	.84	- .17
Orderliness						
On time	34.60	5.38		40.23	2.28	
Late	35	4.31	- .37	40.41	2.71	- .36
Warmth-supp.						
On time	36.32	3.99		40.08	2.26	
Late	36.89	3.99	- .69	40.93	1.80	-1.61
Satisfaction						
On time	16.29	3.89		20.32	1.75	
Late	16.85	3.70	- .71	20.63	.97	- .91
Clarity						
On time	21.95	3.69		26.73	1.65	
Late	23.07	3.04	-1.50	26.78	2.14	- .13
Energy-enth.						
On time	29.70	3.64		33.94	1.65	
Late	30.15	3.66	- .60	33.93	2.17	.02
Non-conform.						
On time	21.17	4.95		27.12	4.72	
Late	20.52	4.65	.64	24.96	5.10	2.18*
Total scale						
On time	176.96	21.24		208.98	8.92	
Late	180.30	18.57	- .77	208.22	8.74	.41

Notes:

[a] [b] On time n = 168
Late n = 27 N = 195

* $p < .05$

Table 53: t Tests on Pretests Completed on Time and Late, Self-concepts, Actual and Ideal

	Self-concepts					
	Actual			Ideal		
Dimension	Mean	S.D.	t-value	Mean	S.D.	t-value
Creativity						
On time[a]	17.16	2.70		20.57	.96	
Late[b]	17.85	2.73	-1.25	20.33	1.64	1.04
Orderliness						
On time	34.53	5.44		39.54	2.73	
Late	34.59	4.58	- .06	40.03	3.12	- .86
Warmth-supp.						
On time	35.72	3.65		39.77	2.77	
Late	36.33	3.81	- .81	40.22	2.31	- .81
Satisfaction						
On time	16.52	3.58		20.24	1.57	
Late	16.74	3.89	- .30	20.44	1.01	- .66
Clarity						
On time	21.73	3.09		26.29	2.24	
Late	22.48	3.11	-1.18	26.63	2	- .75
Energy-enth.						
On time	29.76	3.22		33.70	1.82	
Late	30.15	3.99	- .56	33.70	2.36	0
Non-conform.						
On time	22.79	5.26		26.91	4.64	
Late	22.48	5.85	.27	24.63	6.13	2.26*
Total scale						
On time	178.19	16.83		207.01	9.83	
Late	180.63	18.40	- .69	206	11.32	.49

Notes:

[a] On time n = 168
[b] Late n = 27 N = 195

* $p < .05$

Table 54: t Tests on Pretests Completed on Time and Late, Professional Self-concepts Discrepancy and Self-concepts Discrepancy

Dimension	Professional			Self		
	Mean	S.D.	t-value	Mean	S.D.	t-value
Creativity						
On time[a]	3.63	2.79		3.41	2.60	
Late[b]	2.78	2.44	1.49	2.48	2.61	1.72
Orderliness						
On time	5.63	4.89		5.01	4.78	
Late	5.41	3.29	.23	5.44	3.12	- .45
Warmth-supp.						
On time	3.76	3.34		4.05	3.25	
Late	4.04	3.40	- .40	3.89	3.08	.24
Satisfaction						
On time	4.03	3.50		3.72	3.20	
Late	3.78	3.39	.35	3.70	3.70	.02
Clarity						
On time	4.78	3.63		4.56	2.93	
Late	3.70	2.45	1.49	4.15	2.51	.69
Energy-enth.						
On time	4.24	3.44		3.94	2.74	
Late	3.78	2.78	.66	3.56	3.42	.65
Non-conform.						
On time	5.95	5.01		4.12	4.33	
Late	4.44	5.18	1.44	2.15	3.03	2.28*
Total scale						
On time	32.01	19.60		28.82	14.50	
Late	27.93	16.93	1.02	25.37	14.76	1.14

Notes:

[a] [b] On time n = 168 N = 195
Late n = 27

* $p < .05$

APPENDIX H

Scale Analyses

Appendix H: Scale Analyses

Table 55: Scale Analysis, Parsons Teaching Anxiety Scale

	Pretest		Posttest
Number of items	29	29	29
Number of subjects	211	195	195
Mean	68.72	68.51	62.91
Standard deviation	12.02	11.82	13.51
Reliability	.87	.88	.91

Table 56: Scale Analysis - Reliability Coefficients of Seven Dimensions of the Elsworth-Coulter Semantic Differential

	Dimensions						
Concept	CR1	02	W3	S4	CL5	E6	N7
Professional self-concept							
Actual pretest	.84	.89	.87	.92	.83	.87	.75
Actual posttest	.84	.93	.93	.96	.86	.93	.88
Ideal pretest	.55	.67	.82	.85	.40	.67	.73
Ideal posttest	.53	.75	.86	.86	.51	.80	.87
Self-concept							
Actual pretest	.80	.86	.75	.86	.76	.78	.76
Actual posttest	.84	.88	.86	.89	.84	.87	.86
Ideal pretest	.72	.72	.78	.71	.54	.72	.76
Ideal posttest	.52	.83	.81	.85	.60	.89	.88

APPENDIX I

Student-teachers' Comments

Appendix I: Student-teachers' Comments

Table 57: Frequency of References by Themes, Sub-themes and Groups

Themes and sub-themes	# of references/group 1	2	3	4
Self and professional self:				
Demands on self	7	14	28	7
In role of teacher	35	26	34	23
Reaction of pupils to self as teacher	19	10	14	12
Confidence and professional growth	7	5	23	14
Discipline				
Whole class	16	13	10	11
Individuals and groups	9	7	6	6
Teaching strategies				
Long and short term planning	8	9	17	9
Knowledge of curriculum/resources	7	2	4	5
Teaching techniques	6	5	9	11
Class routines and organizations	3	4	3	5
Evaluation of pupils	1	4	4	2
Individual pupil differences	9	6	10	7
Teaching triad				
School Associate	14	12	14	11
Faculty Associate	4	6	9	3
Significant others				
School principal	2	0	1	5
Other teachers	3	4	4	2
Parents, school board	0	1	0	3
Course ED · 405				
Preparation for course	0	0	2	0
Value and length	2	10	8	14
Other references	3	2	1	0
Other	1	3	2	2

Reflections on the Practicum: Student-teachers' Comments

The quotations that follow have been selected to reflect the diversity and variety of themes mentioned at various points in the practicum. The selection does not necessarily reflect the actual proportions by time, value or number revealed in the earlier content analysis. Although the quotations have been arranged thematically some overlap and multiple referencing occurs. The number in brackets at the end of each quotation reports the number of weeks of practicum that had been completed when the comment was made. It is hoped that these comments may be useful to supervisors and practicum planners seeking a clearer understanding of the pressures and problems of student-teaching.

Theme 1: Self and Professional Self

Demands on self

> Information overload, week 2 - information blowout; week 3 - information digestion. By Jove I've got it! I've arrived. At last feeling like a competent teacher although that may not be a reality. I'm going with the feeling, GREAT! (week 3).

> The amount of preparation required at this stage is excessive. Because of this some full days go by with me almost in a daze trying to keep everything together (week 6).

> Having time to myself is very important to me and 405 takes up more time than I feel comfortable about . . . teaching is forcing me to be more assertive, more organized and to develop a stronger presence in public (week 6).

> Just super busy! (week 6).

> I am feeling particularly overwhelmed right now with the magnitude of the work involved in being a student-teacher. I feel I'm expected to do everything and it scares and frustrates me for I don't feel I'm capable of it (week 6).

> My general feeling during this practicum has been one of extreme pressure (week 9).

> You are left virtually exhausted after one week . . . it's a hard job (week 12).

Role of teacher and reaction of pupils to self as a teacher

I am not enjoying the "act" I am forced to assume (week 3).

I've had a few bad lessons where my morale just hasn't been up (week 3).

Intelligent expansion of emotions and development of my teaching practices (week 3).

The children in my class have warmly received me (week 3).

I feel that I am only half a teacher . . . subsequently I had a very frustrating initial 405 start (week 3).

It is difficult for children to adjust instantly to a new personality, to accept the student-teacher's role in the classroom . . . it is natural that this problem would be more evident in 405 than 401 (week 3).

The kids are ahead of me in many areas - this is both discouraging and exciting - I need time to reflect, study and organize . . . I am considering withdrawing from this semester (week 6).

My lows are LOW. It's very discouraging. The most difficult problems all stem from preparation and confidence. Preparation is easy if effort is applied; confidence is hard to build and one yawn or cutting remark can destroy it (week 6).

Joe came up to me and silently began helping. We talked, and avoided the topic of spelling. Later that week Joe got 25/25 . . . Pride shone in his eyes and I felt great. Moments like this make all the failures worthwhile (week 9).

I said, "My students can come in now." One child said "We're not your students, we're Mrs. P ---'s" (week 9).

My idealism has been shattered (week 9).

After explaining corrections the child is returning to his seat when another student runs up to him and asks loudly "Did she get you?" (week 9).

Theme 2: Confidence and Professional Growth

Perhaps I could isolate confidence as one gigantic growth department for me (week 3).

I feel more confident as a teacher than I did during the 401 practicum (week 3).

Having taken over the class teaching and planning I feel confident of myself as a teacher (week 6).

I have developed tremendously as a teacher, though there's still a long, long way to go (week 9).

By this stage in 405 I am at last beginning to feel that I might be able to live with teaching after various periods of loathing, depression, resignation and flash-in-the-pan enthusiasm (week 9).

My confidence has been rising and that can be attributed to the acquisition of various strategies and the opportunity to develop complete units rather than random lessons, as in 401 (week 12).

I feel that I have finally found my niche in life (week 12).

Theme 3: Discipline - Whole Class, Groups and Individuals

They do try to get away with a lot but I am trying to be very firm. Sometimes it is difficult because I feel like a beast (week 3).

I've had kids testing me and have had to gain control of the class (week 3).

Discipline has been of primary concern to me so far this semester. Having to resort to sending uncooperative children into the hall was a climax to my dilemma in this regard (week 3).

A few students decided that they didn't like me, and the classroom atmosphere was tense. These few students (5) teamed up to refuse cooperation, resisted any kind of change, etc. Sometimes they were "crying" for their regular teacher! It was a very powerful experience. I really wanted to win the students and have them all (not just 20 or 25) on my side! (week 6).

I feel everything is going great except discipline in the classroom (week 6).

The only dominant incident is the constant struggle for classroom control between teacher and students (pupils) (week 6).

The first time my F.A. observed his assessment was a cross between "Animal House" and "Monty Python" - class control has been a major focal point in the 405 practicum (week 9).

I have spent a lot of time with students who don't cooperate and have deprived willing students of . . . extra help and challenges (week 9).

I began disciplining students harshly and my lessons were more a "make work session" so that the students would be kept busy (week 9).

I'm learning that sometimes I just have to take a real hard line, something that is not inherent in my nature (week 12).

Theme 4: Teaching Strategies

I have been trying as many teaching strategies to find out which ones are most effective for me (week 3).

My question/response techniques need work . . . Attempts at sustaining and extending student responses often fall short of the desired intent (week 3).

Some students gobble up the material in ½ the required time while others cannot even begin the material because they lack the prerequisite skills (week 3).

If organizational problems were overcome more easily the job would be a snap (week 6).

Trying four Fridays in a row to devise a really good weekly math test and each time it was either far too easy or far too difficult. Finally getting it "bang-on" (week 9).

Have a hard time with lesson pacing, information overload (week 9).

I am more familiar with what types of activities will interest the students and how to present the information in a stimulating way (week 9).

Know more about strengths and weaknesses (of children) which aids in teaching the class a great deal (week 12).

Theme 5: Teaching Triad

School Associate

My sponsor teacher has built up my confidence tremendously . . . She always gives me feedback both positive and negative (week 3).

Many of the teachers in the school seem very unfriendly towards me as a student teacher. They feel we're wasting their time and the time of other teachers (week 3).

The key is the selection of the school associate . . . Her splendid classroom management has enabled me to capitalize on that feature and relax sufficiently with the classes to grow and develop as a student-teacher (week 9).

Working with my school associate has been a valuable experience (week 9).

I found the 405 practicum much more frustrating that 401 (as) . . . I was with an older woman who did not hesitate to let her superiority (be) known and who never made me feel welcome in her class (week 12).

I think there should be some sort of screening of the S.A.'s . . . Quite often my S. A. would not be available for discussions . . . When a problem occurred she went to my F. A. (week 12).

I felt very lucky to have been placed in such a positive school environment with an excellent school associate to guide me (week 12).

Faculty Associate

The extreme lows occur when I am evaluated by my F. A. (week 3).

F. A. is very encouraging (week 6).

The thoroughly professional approach of the F. A., his advice ane encouragement (week 9).

My relationship with S. A. and F. A. is Al . . . (They) have been very helpful . . . and really considerate (week 9).

Theme 6: Significant Others

The day the principal arrived on five minutes notice for his first observations the students chose to act twice as bad as usual. Seventy-five percent of my energy was expended in an attempt at controlling them and as a result my lesson lacked coherence and I appeared very uneasy (week 3).

The staff at the school treat me very well except the principal, who doesn't seem to care I'm there (week 3).

I don't feel I have much in common with them (other teachers) other than in a professional level. I sort of resent the fact that most teachers are so conservative and see themselves as pillars of society (week 6).

Staffroom - I say hello to a few people I know, smile. But no definite friendly responses from other teachers (week 6).

The staff is the friendliest I've ever met. They made my stay at their school a fantastic and fun learning experience (week 12).

Theme 7: Course ED. 405

(Including sub-themes of value, length, placement and preparation.)

The most important thing about this practicum is that it is a perfect placement (week 3).

My placement was inappropriate and therefore somewhat frustrating. It would appear that the politics of personality and the politics of the system have more to do with the placement of student-teachers than any scheme of rational allocation (week 3).

402 not long enough (week 3).

I now feel confident that I can be creative and stimulate learning which never really took place in 401/2. This is a result of being able to carry a unit to completion, to be a full-time teacher for a long period (week 6).

I feel some of the pressure was caused by the Univ. approach i.e., teach first, study methods later. I feel 401/402 did not adequately prepare me for such a prolonged practicum (week 9).

I feel that the major advantage of a long practicum like 405 as opposed to a four weeks practicum . . . (is that) experiences, reactions and feelings towards teaching, students and education vary radically throughout the practicum (week 9).

My 405 experience is a totally different one from 401 . . . is much more realistic and thus a more challenging teaching experience (week 9).

Having a practicum for 3 or 4 months gives you a real idea of teaching and can be much more fulfilling than a short practicum in which you never get to know the kids, the school or your own abilities (week 12).

A fantastic learning experience. I know for certain that teaching is for me (week 12).

The 405 practicum exposed me to the realities of the daily mechanics of teaching . . . It forced me to do a lot of re-evaluating in terms of expectations and ideals . . . I have an inkling that being in my own classroom may make a world of difference . . . The practicum gives one time to know the children and establish a rapport, develop some sense of routine and start to set a tone in the classroom (week 12).

Theme 8: Other Comments

I became most aware that the standards of teaching which I hope to attain will be motivated by the children and not the system as established by the administrators (week 3).

Teaching is a very conservative and unrealistic field for teachers (week 6).

Insufficient time given for preparation of resume and related career data (week 6).

Wondering whether I would get a job at the end of all this hard work and trying not to get depressed at the possibility of not getting one (week 9).

I am always comparing my own grade 8 and 9 years and I am constantly shocked by the drop in the standard of education (week 12).

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