

THE UNIVERSITY OF MANITOBA

A COMPARISON OF TWO METHODS OF SUPERVISING
STUDENT TEACHERS

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TABLE OF CONTENTS

	Page
LIST OF TABLES	iv
LIST OF ILLUSTRATIONS	vi
 Chapter	
I. INTRODUCTION AND STATEMENT OF THE PROBLEM.	2
Introduction	2
Purpose of the Study	7
Criterion Measures	8
Hypotheses	9
Assumptions	10
Limitations	11
Delimitations	11
Definitions	12
II. REVIEW OF LITERATURE	15
Introduction	15
Studies of Attitude Changes During Practice Teaching	16
Characteristics of an Effective Supervision	20
Studies of Student Teacher Attitude Change in Relation to Supervisory Personnel	29
Studies Comparing Different Modes of Supervision	34
Summary	41
III. EXPERIMENTAL DESIGN	44
Basic Design	44
Description of Plan A	45
Description of Plan B	46

Implementation	48
Sample Group	50
Criterion Measures	51
The MTAI	51
The DTB	52
Development of Plans of Supervision ..	55
Plan A	55
Plan B	57
 IV. THE DATA	 74
Description of Data	74
Analysis of MTAI Scores	75
Analysis of Covariance	75
Analysis of Variance	76
Comparison of Pre-test MTAI to the Post-test MTAI Scores	76
Analysis of DTB Scores	77
Multivariate Analysis of Variance ..	77
Multivariate Analysis of Covariance.	79
Discussion of the Data Analysis	81
Analysis of MTAI Scores	81
Analysis of Covariance of the MTAI Scores	82
Analysis of Variance of Difference Scores	82
Comparison of Pre-test MTAI Scores to Post-test MTAI Scores	84
Analysis of the DTB Scores	85
Multivariate Analysis of Variance ..	86
Multivariate Analysis of Covariance.	88
 V. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS .	 92
Summary	92
Subjective Analysis of Plan A and Plan B	97
Plan A	97
Plan B	99
Statistical Results	102
Recommendations	103
 APPENDICES	 106
 BIBLIOGRAPHY	 160

LIST OF TABLES

Table	Page
1. Summary of Questionnaire Results	56
2. A Summary of the Pre-test MTAI Results (The Covariate)	59
3. A Summary of the Post-test MTAI Results	60
4. A Summary of the Univariate Analysis of Covariance of the MTAI Scores	61
5. A Summary of the Difference Scores of the MTAI	62
6. A Summary of the Analysis of Variance of the Difference Scores of the MTAI	63
7. A Comparison of the Pre-test MTAI Scores to the Post-test MTAI Scores by Use of a t-Test for Dependent Measures	64
8. A Correlation Matrix for the Variables and Covariates of the DTB Results	65
9. The Variance of the Three DTB Factors Used as Dependent Variables	66
10. The Results of the Multivariate Analysis of the DTB Data: The Main Effect Due to Supervisor	67
11. The Results of the Multivariate Analysis of the DTB Data: The Main Effect Due to Supervision	68
12. The Results of the Multivariate Analysis of Variance of the DTB Data: The Main Effect Due to Interaction	69

Table	Page
13. Statistics for the Regression Ananlysis with Three Covariates	70
14. The Results of the Multivariate Analysis of Covariance of the DTB Data: The Main Effect Due to Supervisor	71
15. The Results of Multivariate Analysis of Covariance of the DTB Results: The Main Effect of Supervision Type	72
16. The Results of the Multivariate Analysis of Covariance of the DTB Data: The Main Effect Due to Interaction	73

LIST OF ILLUSTRATIONS

Figure	Page
1. Diagramatic Description of Organizational Functioning - from Bass, B.M.	21
2. The Numerical Design of the Study	49

CHAPTER I

INTRODUCTION AND STATEMENT OF THE PROBLEM

CHAPTER I

INTRODUCTION

Practice teaching is a time during which a student teacher is putting into practice theories and ideas. For the student teacher the experience serves as a learning situation and as a chance for examining his potential as a teacher. For the Faculty of Education it serves as a practicum in which the student teacher can be guided in the practical aspects of teaching. Student teaching also serves as a chance to evaluate the student teacher and in this way indirectly evaluate the faculty itself. These factors render the period of practice teaching important in the education of teachers and as such should be constantly evaluated to determine its present and potential values.

The process of supervision as carried out by the Faculty of Education involved two supervisory personnel; the cooperating teacher and the faculty supervisor. The cooperating teacher is a Manitoba school teacher associated with the school to which the student teacher has been assigned for practice teaching. He is responsible for day to day supervision and guidance of the student teacher. The faculty supervisor is responsible for occasional constructive,

evaluative assessment of the student teacher during the practice teaching session. The practice teaching session of the Education I program at the Faculty of Education, University of Manitoba consisted of two-five week practice teaching sessions in the public schools of Manitoba. The first session occurred in the fall term (October 19-November 20) and the second session in the spring term (March 1 - April 2). During each five week session the student teacher spends each weekday in the school to which he has been assigned by the Student Teaching Office at the Faculty of Education. While at this cooperating school he is under the supervision of a regular teacher of the school (the cooperating teacher). The student teacher is scheduled into various classes according to his subject matter specializations (generally two; eg., chemistry and mathematics). In each class he is under the guidance of the cooperating teacher(s). Throughout the five week session the student teacher assumes more and more independence in his classroom functions. Initially he begins observing the classes being conducted by the cooperating teacher and familiarizes himself with the personnel and the organization of the class and the school. Depending on the school and the particular cooperating teacher, the activities and the degree of autonomy of the student teacher vary. Generally within the first week the student teacher is teaching some classes with

the cooperating teacher present in the room and is still observing in other classes. Often by the fifth week the student teacher is teaching classes regularly with few classes being observed by the cooperating teacher. In essence, the student teacher has assumed the responsibilities of a regular teacher including that of evaluating pupils. Supervision by the Faculty of Education is in addition to that conducted by the cooperating teacher(s). At the end of the five week session the cooperating teacher(s) completes an evaluation form upon the student teacher and this form is sent to the Student Teaching Office. The process of supervision is carried out with the purpose of guiding the student teacher to becoming a better teacher and at the same time to evaluate the student teacher.

According to Blumberg: "When a supervisor and a teacher interact in a supervisory conference there are two broad aims of the situation:

1. To help maintain and enhance those parts of his teaching that are seen as productive
2. To help the teacher change those aspects of his teaching that are in need of improvement."¹

In other words, an optimum of maintenance and change must somehow be determined and implemented. A necessary component of the process would have to be evaluation, evaluation in

¹ A. Blumberg, Supervision Interaction as Seen by Supervisors and Teachers, ERIC microfiche ED 014142.

order that assesement can be made as to what is to be maintained and what is to be changed or rather to be improved.

The Student Teaching Handbook(see appendix 1) of the Faculty of Education states that the supervision provided during practice teaching is intended to "...close the gap between the theory and the practice of teaching." The role of the supervisor "...is that of guidance and evaluation."

The supervision may lose all properties but that of a system which is percieved by the student teacher as an authorative, fail-promotion system and as such has lost the more important function of evaluation. This function of evaluation is that of providing a basis of individual improvement in terms of reaching teaching goals. This would mean that the supervision would include an objective evaluation which can then be effectively communicated to the student teacher and upon which future change can be based. In effect, supervision of a constructive, positive, and operational nature is a necessary requirement. Supervision may be wasted by dwelling upon superficialities of the teaching performance rather than dealing with signifigant features which are likely to affect the learning of the pupils involved. Another correctable fault may be the disregard of the emotions that are generated when one is learning to teach, teaching, or being supervised. This does not mean that the student teacher should be treated as emotionally fragile but some forethought should be given to these implications of

of the supervision. Also, as Goldhammer notes, supervision "... often fails...to exemplify the principles of good teaching."¹

At times it can be observed that a faculty supervisor will assume a 'supervisory' role. In this way he can create for himself a dominant rank in an educational system hierarchy in which the student teacher is a sub-dominant. In this situation very little personal contact can be made since it is not a John-Jim interaction (or for that matter a Mr. Smith-Mr. Doe interaction) but rather one that involves Professor Smith - Jim. In this case communication is limited and evaluation and the concomitant change based on this evaluation may be limited. The student teacher may develop some defence mechanism(s) in order to avoid an evidently thwarting situation and to some extent remove himself from the supervision.

The basis for supervision finds support in the following statements of J.T. Shaplin:

1. Teaching is a behavior, and as behavior is subject to analysis, change and improvement.
2. Much of the habitual behavior which individuals have developed in other contexts is inappropriate for the teaching situation.
3. Under present conditions, much teaching is conducted under conditions of stress.
4. Teachers, through practice can learn to analyse, criticize and control their own teaching behavior.
5. Teaching is an extremely complex kind of behavior involving the full range of thought processes, communication and physical actions.²

¹R. Goldhammer, Clinical Supervision, Special Methods for the Supervision of Teachers, (Holt, Rhinehart, Winston, 1970).

²J.T. Shaplin, "Practice in Teaching", The Student Teacher's Reader, ed., Perrodin, A. (Rand, McNally, 1966).

A supervision which demonstrates the ability to induce change can be termed effective if this change is in the desired direction. It would be useful to analyse the supervision characteristics and determine its effects upon the student teacher in order to discover its value as a guidance system.

PURPOSE OF THE STUDY

The purpose of the study was to compare two methods of supervising student teachers during practice teaching. The two methods employed defined the role of the faculty supervisor. In each method of supervision the role of the cooperating teacher was not controlled by this study. The two methods differed in the supervisors' fundamental relationship with and approach to the student teacher. The two methods also differed structurally. Plan A had the supervisor in a directive-authorative role in which his main function was that of evaluating the student teacher's teaching performance and relating this evaluation to the student teacher. The lines of communication tended to be one way: from the supervisor to the student teacher. Plan B had the supervisor in a cooperative role in which his function was to cooperatively determine with the student teacher the goals of the teaching performance and of supervision, to evaluate the lesson on the basis of these goals, and to develop from this evaluation plans for modification for

improvement of the teaching performance.

The nature of the study then was comparative but it was also exploratory in that questions were to be answered which are basic to the practice of supervision: does supervision in itself influence the nature of the student teacher, are methods of supervision and comparison used by this study adequate to provide bases for generalizations and conclusions? Due to the exploratory nature of the study, the statistical analysis of the results was rather extensive so as to uncover any trends in the data which might be present. The particular computer program used, carried out when applicable, multivariate analysis of both variance and covariance and included in the print-out the results of univariate analysis of covariance and variance. The amount of information generated was considerable and much of it is presented in this paper.

CRITERION MEASURES

The criteria upon which comparison was to be founded were attitudes as measured by the Minnesota Teacher Attitude Inventory¹ (MTAI) and the Dimensions of Teacher Beliefs test² (DTB). Attitude measures were used because an individual's

¹W.W.Cook, C.H. Leeds, & R. Callis, Minnesota Teacher Attitude Inventory, (The Psychological Corp., New York, 1951).

²L.J. Wehling & W.W. Charters Jr., Dimensions of Teacher Beliefs About the Teaching Process, (American Education Research Journal, 6:1, Jan. 1969).

behavior can be thought of as his responses to environmental inputs. The responses are directed by the nature of the input and the individual's perception of them. The perception is influenced by the individual's current attitudes. With a change in his perceptual framework due to a change in attitudes his behavior in a given situation will also change.

The particular test instruments were employed because they each resulted in a quantitative description of attitude which facilitate statistical analysis and they were relatively simple and quick in administration. The MTAI was used because it yielded a single score, was designed for teacher attitude specifically, has been used traditionally in studies of this nature, and was relatively reliable. The DTB was used primarily because in many studies the results based upon the MTAI tended to be rather diffuse if not contradictory. Further, the DTB was designed to yield separate scores on eight factors of teacher beliefs, this is of use in both interpretation of score results and in statistical analysis.

HYPOTHESES

The hypotheses to be tested have to be stated in relation to the structure of the analysis: a two-way design was employed. One factor was the supervisor that carried out the supervision of that student teacher. The main effect of the supervisor is symbolically designated: α_i . The second

factor was the method of supervision applied to that student teacher. The main effect of supervision type is symbolically designated: β_j . A resultant interaction effect of supervisor with supervision type is represented by $\alpha\beta_{ij}$. The hypotheses tested were:

$$1. H_0: \sum_{i=1}^I \alpha_i^2 = 0$$

$$2. H_0: \sum_{j=1}^J \beta_j^2 = 0$$

$$3. H_0: \sum_{i=1}^I \sum_{j=1}^J \alpha\beta_{ij}^2 = 0$$

Stated non-symbolically:

1. H_0 : there are no systematic effects upon the dependent variable(student teacher attitude) due to different supervisors.
2. H_0 : there are no systematic effects upon the dependent variable due to different methods of supervision(supervision type).
3. H_0 : there are no systematic effects upon the dependent variable due to interaction between supervisor and supervision type.

ASSUMPTIONS

1. Attitudes are an important determinant in behavior.
2. The tests used were accurate estimates of the attitudes they purport to measure.

3. Changes in test scores correspond to changes in the individual's attitudes.

LIMITATIONS

1. All measurements are limited to the definitions of the testing instruments.
2. The attitudes of the supervisors towards the student teachers were unknown.
3. The nature of the supervision given by the cooperating teacher was not controlled.
4. The school environment of the student teacher was not controlled.
5. The structure and methods of plan A and plan B were standardized only as described in the procedure.

DELIMITATIONS

1. The subjects were all student teachers enrolled in the same class, Special Topics in Science, and were all in the Education I (secondary) program at the University of Manitoba.
2. Only the first three weeks of a five week practice teaching session was considered in this study. This was the second of two five week practice teaching sessions. All student teaching had participated in the first practice teaching session.

DEFINITIONS

1. Student teacher: An individual enrolled in a certification program(secondary science) at the Faculty of Education, University of Manitoba who is assigned to a cooperating school to carry on the work of student teaching under the direction of the cooperating teacher.
2. Cooperating school: That Manitoba school which has agreed to receive student teachers for their student teaching experience.
3. Cooperating teacher: Those teachers in the cooperating school appointed by the principal of the school who receive, supervise, and evaluate the daily experiences of the student teacher.
4. Faculty supervisor: Those staff members of the Faculty of Education or those educators appointed by the Faculty of Education who in cooperation with the principals and cooperating teachers go out to the cooperating schools to advise and evaluate student teachers.
5. Attitudes: Those attributes measured by the MTAI and the DTB.
6. MTAI: The Minnesota Teacher Attitude Inventory is a testing device to quantify teacher attitudes into a single score.
7. DTB: The Dimensions of Teacher Beliefs test is a testing device to quantify teacher attitudes into scores on eight

separate factors.

8. Group A: Those student teachers included in the study that were supervised under supervisory plan A.
9. Group B: Those student teachers included in the study that were supervised under supervisory plan B.

CHAPTER II
REVIEW OF LITERATURE

CHAPTER II

REVIEW OF LITERATURE

INTRODUCTION

The literature reviewed in this section is related to the experimental design of the study and to the structure of the supervisory methods employed in the study. The first section, Studies of Attitude Changes During Practice Teaching, attempts to determine the nature of attitude changes occurring during practice teaching and whether they prove to be of use in the study of effects of supervision during practice teaching. The second section, Characteristics of an Effective Supervision, attempts to provide a rationale for the implementation of plan B in the study. It is a review of some theoretical writings and of some studies conducted in this field. The third section, Studies of Student Teacher Attitude Change in Relation to Supervisory Personnel, attempts to determine whether attitude changes occurring in student teachers showed some relationship to some characteristic of a person involved in the supervision of that student teacher. The fourth section, Studies Comparing Different Modes of Supervision, attempts to determine whether different supervisory methods do produce differential effects upon the student teacher.

STUDIES OF ATTITUDE CHANGES DURING PRACTICE TEACHING

Several studies have been conducted to determine the nature of attitude changes in student teachers related to participation in practice teaching.

Gewinner¹, using the MTAI as a measure of attitudes held by student teachers found " a highly significant negative change in student teacher attitude beyond the 0.01 level of confidence took place during the student teaching period in the total population of 150 subjects."

McEwin also used an MTAI as a measure of attitude and administered it to student teachers before the methods course, before practice teaching, and then after practice teaching. The findings were "...all subgroups with the exception of the male elementary group, indicated significant positive changes in attitude during methods courses and negative attitude change during student teaching."² The level of statistical significance was reported to be beyond 0.001 .

Campbell, using a pre-test MTAI and a post-test MTAI found "...one of every two student teachers had positive change in attitude towards teaching, one in five had a negative change in attitudes towards teaching and one in

¹M.N.Gewinner, A Study of the Results of the Interaction of Student Teachers with Their Supervising Teachers During the Student Teaching Period, (Dissertation Abstracts 29:1).

²T.McEwin, Attitudinal Change of Students During Methods Courses and Student Teaching, (Dissertation Abstracts 29:1).

four had no change in attitude towards teaching at the conclusion of student teaching courses."¹

Jekel², in relating attitude change of student teachers during practice teaching to school size found no significant relationship between attitude change and school size. An MTAI was used as the measure of attitude.

Talmage and Monroe³ studied student teachers working with cooperating teachers in the community and on-campus seminars. The student teacher and the cooperating teacher attempted to determine in cooperation with the community the requirements and goals of urban education and to establish community learning centres. Using the MTAI as a measure of attitudes the student teachers showed significant positive shifts in attitudes towards school setting and children.

Watson⁴ administered an MTAI to student teachers before and after practice teaching. He found no significant change in attitude in analyzing the results of the whole group.

¹G.V.Campbell, A Descriptive Study of the Effects of Student Teaching Upon the Attitudes, Anxieties and Perceived Problems of Student Teachers, (Dissertation Abstracts, 29:11).

²E.E.Jekel, The Effect of Student Teaching on the Attitudes of the Student Teacher, (Dissertation Abstracts 27:12)

³H.Talmage & G.E.Monroe, A Cooperative Program in Urban Teacher Education, (ERIC microfiche, ED 040136).

⁴C.K.Watson, A Study of the Effects of Student Teaching Upon the Attitudes of Prospective Teachers and Interns, (Dissertation Abstracts 25:10).

Brim¹ studied the effects of teacher education upon student teachers' attitudes towards teaching and concepts of growth and development characteristics of children. The MTAI and the Mahoney Child Development Expectancy Index was administered at the beginning of a quarter and then again ten weeks later. The total sample showed significant change in both attitudes and concepts. They tended to become more liberal (positive MTAI score shift) in attitudes towards children and both attitudes and concepts tended to move closer to the faculty means.

Anderson² studied attitude change of secondary student teachers during practice teaching. The attitudes were measured by having the student teachers express attitudes on twenty concepts about education and teaching. It was found that about fifty percent did not change attitudes during practice teaching. Most changes involved attitudes towards the purpose of schools, curricular offerings effort in teaching, and respect for pupils.

Faunce³ compared the attitudes and characteristics of

¹B.J.Brim, Change in Teacher Education Students, (Dissertation Abstracts 25:8).

²S.E.Anderson, The Changes in Attitudes of Prospective Teachers Towards Education and Teaching in the Secondary Schools, (Dissertation Abstracts 25:7).

³R.W.Faunce, Attitudes and Characteristics of Effective and Not Effective Teachers of Culturally Disadvantaged Children, (Minneapolis Public Schools, ERIC microfiche ED 039289).

effective and ineffective teachers in culturally disadvantaged schools. Effective teachers tended to accept the fact that disadvantaged children do suffer deprivation, believe that a disadvantaged child is discriminated against, refrain from stereotyping children, deny that teaching disadvantaged children is unpleasant, and sides with the views of minorities to some extent. Ineffective teachers did not have these characteristics. Factors which did not relate to effectiveness were sex, age, teaching experience, marital status, region of childhood, father's occupation, academic degrees held, or number of academic courses taken on disadvantaged children.

Corrigan and Griswold used an attitude inventory to measure verbalized attitude changes of student teachers to three educational concepts:(1) the learner's purposes are recognized and utilized;(2) the learner engages in problem solving; and(3) the learner is helped to develop generalizations which he can apply in a variety of life situations. They concluded that "...student teaching does contribute to change in student teacher attitude...positive or negative change depends upon the quality of the experience afforded the student teacher with quality in this instance meaning the extent to which the student teacher perceived his college supervisor, cooperating school and his cooperating teacher to be implementing the three principles held to be

important in guiding learning opportunities."¹

CHARACTERISTICS OF AN EFFECTIVE SUPERVISION

The following consists of studies and writings that describe characteristics of supervisory method intended to effect change in the individual being supervised.

Bass² has demonstrated the importance both to productivity and satisfaction of involving the doers in the planning of performance outputs(goals). He has shown that carrying out of self-planned operations are more productive and satisfying than the carrying out of the plans of others. An individual tends to be committed to his own plan and sees it as more flexible, easier to understand, and more effective than the plan(s) of others. Although he was dealing with workers and supervisors in a business setting his model(see figure 1) and his ideas have application to this study.

MacKenzie and Corey state that a feeling of participation in the working environment is motivational and "... growth in an individual's resourcefulness and independence was most clearly observable when staff members had numerous

¹D.Corrigan & K.Griswold, Attitude Changes in Student Teachers, (The Journal of Educational Research, 57:2, October,1963).

²B.M.Bass, When Planning for Others, (The Journal of Applied Behavioral Science, 6:2, 1970).

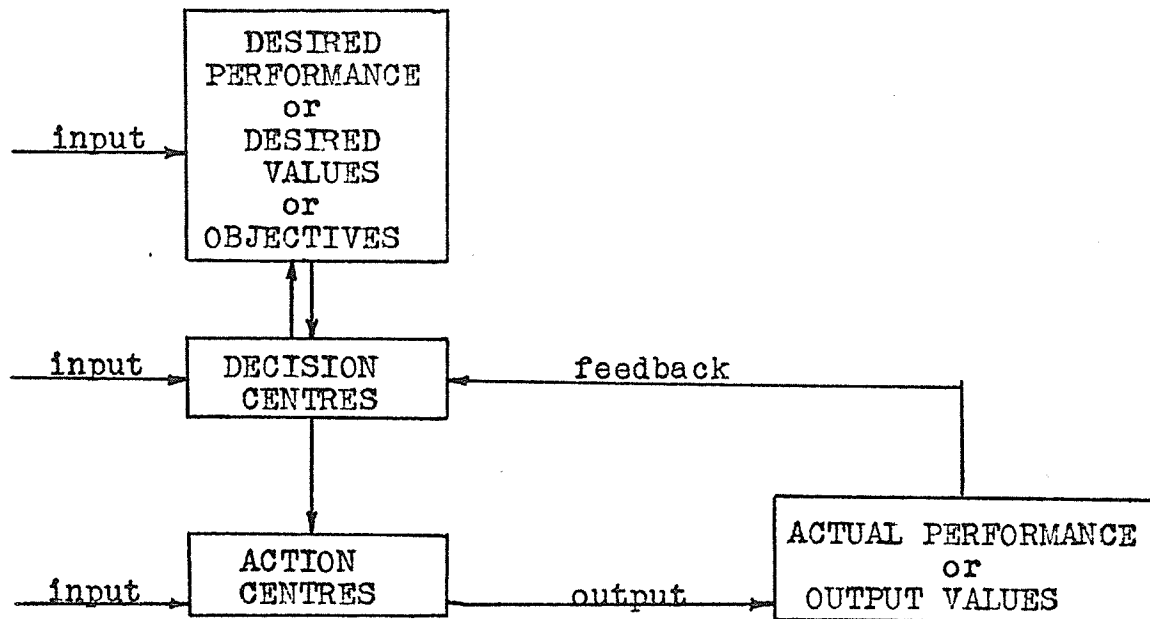


Figure 1: Diagrammatic Description of organizational functioning- from Bass, B.M.

opportunities to participate in planning, to express ideas and contribute suggestions about aspects of the institutional program that involved and interested them."¹

Colbert², using a critical incident technique to study supervision found that ineffective supervision as perceived by secondary teachers, included the making of

¹G.N.MacKenzie & S.M.Corey, "People as Situational Factors Affecting Leadership", Interdisciplinary Foundations of Supervision, ed.Netzer, Eye et al, (Allyn and Bacon, Boston, 1970).

²J.E.Colbert, A Study of Effective and Ineffective Supervisory Behavior, (Dissertation Abstracts 27:8).

administrative decisions by the supervisor without consulting those persons involved in the decision.

Blake and Mouton reported a study involving power in the decision making process. Should the supervisor be the only person involved in making the decision involving the subordinate, the power is said to be 1/0. If both the supervisor and the subordinate share equally in the making of a decision, the power is said to be .5/.5 . If the subordinate is the only person involved in making the decision the power is said to be 0/1 . In the study they found:

The most nearly equal amount of satisfaction for both supervisor and subordinate, with moderately high level of satisfaction, is found in the positions in the middle power distribution, especially .6/.4 and .5/.5 . The general finding relating power to responsibility of both supervisor and subordinate are at a peak near the .5/.5 power position on the spectrum.¹

They compared two methods of supervision, one in which the supervisor told a subordinate what to do and held him to it (power range from 1/0 to .7/.3) and the other which involved cooperative goal determination and planning (power range of about .5/.5). They found that satisfaction, sense of teamness, and sense of responsibility were higher with the cooperative planning method. With the more directive method the supervisor had a high sense of responsibility for the

¹ R.R.Blake & J.S.Mouton, "Power, People and Performance Reviews", Readings in Human Relations, ed. K.Davis and W.G. Scott, (Second ed., McGraw-Hill Book Co. 1964).

decision and the subordinates carrying it out, yet the subordinate has a low sense of responsibility towards the decision.

Etzioni¹, through a study of literature believes that participation in orientation, planning, and decision making increased adjustment to change and the productivity of workers. In considering the social aspects of supervision, Etzioni believes that output is not always dependent upon material rewards but that social factors are also critical. Social factors include the levels of psychological satisfaction and patterns of social interaction.

Argyris² believes that to a large extent supervision of student teachers involves only emotional, interpersonal rewards or values; no material, concrete thing can be offered or is apparently essential. He suggests that supervision requires interpersonal competence on the part of the supervisor and the student teacher that will be characterized by openness and trust with a willingness to own their ideas and if possible experiment. Should feelings be repressed in discussion, 'rational' acts may be based upon emotional values and in this way become irrational.

¹A. Etzioni, Modern Organizations, (Foundations in Modern Sociology Series, Prentice-Hall, 1964).

²C. Argyris, "Interpersonal Competence and Organizational Effectiveness", Interpersonal Dynamics, ed., Bennis, Schien et al (The Dorsey Press, 1964).

²C. Argyris, Organization and Innovation, (R.D. Irwin Inc. and The Dorsey Press, 1965).

By dealing with emotion as emotion, by realizing feelings are involved in the situation, a realistic basis for planning and development can exist. Argyris further believes that a person in a leadership position should attempt "...to increase opportunity for psychological success, essentially and confirmation but at the same time minimize long range dependence on him (by subordinates)...the members (of the group) will see him as a caring competent person who is decreasingly necessary."

Cornett¹, in a survey of research on supervision of secondary student teachers found, among other things that the personality interaction between supervisor and student teacher can be considered a significant factor in the supervisory process. Another trend was that cooperative planning and clearly defined goals are prominent factors which contribute to good human relations.

Farrell², in studying supervision with elementary teachers found that on the basis of questionnaire data, one of the three most highly ranked suggestions was to have a supervisor that will listen with empathy and understanding.

¹J.D.Cornett, A survey of Research Relative to Supervision of Student Teachers at the Secondary Level, (Dissertation Abstracts 27-678).

²M.E.Farrell, The Identification and Evaluation of Professional Problems of Elementary Teachers in an Urban Area as a Basis for the Improvement of Supervision and In-service Training, (Dissertation Abstracts 30:9).

Colbert¹, in a study of supervisory behavior by critical incident technique found that sincerity, serious consideration of teachers' problems and willingness to help on the part of the supervisor was considered to be effective supervisory technique.

Bradely² concluded that the most ideal cooperating teacher:student teacher relationship was characterized by the cooperating teacher genuinely accepting that student teacher as a person in training to become a professional person through experiencing the activities planned for his professional and personal growth. The cooperating teacher responds warmly to the student teacher's ideas and permits the student teacher to express his ideas. The cooperating teacher adjusts his explanations to fit the student teacher's ability and knowledge and is sympathetic to the student teacher's problems in teaching. Further, the cooperating teacher is open in that he conveys a willingness to accept and work with controversial ideas and he encourages the student teacher, treating him as a co-worker on common problems.

Mackenzie and Corey "...found fear of making mistakes

¹J.E.Colbert, A Study of Effective and Ineffective Supervisory Behavior, (Dissertation Abstracts 27:8).

²R.C.Bradely, Clarifying the Supervising Teacher's Role, (ERIC microfiche ED 024641).

frequently acts as a deterrent to further mistakes... security or freedom from threat is much more conducive to creative and cooperative problem solving than fear... security makes curricular experimentation possible... most individuals will accept or even seek responsibility if they do not feel threatened and responsibility is not thrust upon them before they are ready for it."¹

Argyris² believes that as the degree of openness to new thoughts and ideas decreases and the presence of threat increases the capacity for change through experimentation tends to decrease leading to a further decrease in openness.

Eash³ believes that a supervisor should be skilled in the theory and practice of implementation of change in human organization in order to be effective. Colbert's study supports this view in that characteristics of ineffective supervision include destructive criticism the failure to demonstrate recommendations and the opposition to new methods or approaches to teaching. And further, the ineffective supervisor demonstrated a lack of development

¹G.N.MacKenzie & S.M.Corey, "People as Situational Factors Affecting Leadership", Interdisciplinary Foundations of Supervision, ed., Netzer, Eye et al. (Allyn & Bacon, 1970).

²C.Argyris, "Interpersonal Competence and Organizational Effectiveness", Interpersonal Dynamics, ed., Dennis, Schien, et al. (The Dorsey Press, 1964).

³M.J.Eash, Toward a More Viable System of Supervision, (New York State English Council, ERIC microfiche ED 039223).

in perceptive and interpretive skills as he engaged in human relationships.

Enns¹ believes that a situation for learning must be developed and this situation can be easily destroyed. A good supervisor facilitates good teaching and this means the supervision promotes independent behavior on the part of student teachers.

Combs² believes that when people feel threatened they tend to narrow their 'vision' to the threat alone and tend to defend their existing position. Exploration and discovery are limited under threat. The possibility of success with a balance of challenge must be present in the situation in order to promote change- education.

In the Forty Third Year Book of the Association for Student Teaching³, Pfeiffer writes:

The changes from acquiring to applying knowledge, from associating with peers to working with pupils, from passive acceptance of the lecture to direct involvement as a teacher, leave him [the student teacher] without established procedures to fall back on. His success in student teaching depends upon how quickly and adeptly he can find new ways of behaving.⁴

¹F. Enns, Supervision of Instruction: A Conceptual Framework, (Canadian Education and Research Digest 8:3).

²A.W. Combs, The Professional Education of Teachers, (Allyn and Bacon, 1968).

³The College Supervisor-Conflict and Challenge, 43rd Yearbook 1964, Association for Student Teaching, (W.C. Brown Co.)

⁴R.T. Pfeiffer, "Common Concerns of College Supervisors", The College Supervisor-Conflict and Challenge, 43rd Yearbook 1964, The Association for Student Teaching, (W.C. Brown Co. Inc.)

Cogan writing in the same yearbook makes the recommendation that "present relationships between supervisors and teachers are usually not strong enough to permit the supervisor to rate the teacher and still maintain in force, the confidence, the understanding and the working rapport necessary to make supervision productive."¹

Scholl in a study on the effective-ineffective supervisor used a critical incident technique and found that "...student teachers desire specific suggestions for improvement of their teaching skills. They expect the supervisor to be prescriptive in his evaluation."²

Flanders, in writing on what the beginning teacher should have gained from a teacher education program, states that the beginning teacher:

- ...Can identify and label various patterns of teacher behavior...
- ...Can perform these behavior patterns at appropriate moments in spontaneous situations and can make adjustments which take into account the...characteristics of pupils as well as the objectives of that particular teaching situation.
- ...Can predict the consequences of providing particular teaching patterns under specified conditions and can use this knowledge to plan the control of his own behavior given particular objectives and purposes in the teaching

¹M.L.Cogan, "Clinical Supervision by Groups", The College Supervisor-Conflict and Challenge, 43rd Yearbook 1964, The Association for Student Teaching, (W.C.Brown Co.Inc)

²R.L.Scholl, Secondary Student Teacher's Perceptions of Effective and Ineffective Supervisory Behavior of the College Supervisor, (Dissertation Abstracts 27:11).

situation.

...Can collect information about his own behavior...
can organize this information into pedagogically
usefull concepts, and has had practice with these
concepts in making use of feedback from others about
his own behavior.¹

STUDIES OF STUDENT TEACHER ATTITUDE CHANGE IN RELATION TO SUPERVISORY PERSONNEL

This section is a review of the literature describing the studies that have attempted to determine if there existes a relationship between changes occurring in student teachers during practice teaching and characteristics of the college supervisor or the cooperating teacher. If there appeared to be a relationship, the nature of this was determined if possible.

McCraken, using the MTAI as a measure of attitudes in a study of beginning elementary teachers found " the attitudes expressed by beginning teachers tended to change during the initial year of teaching. The direction of this change was towards the attitudes expressed by their experienced co-workers, not towards other groups of teachers."²

Renfro³ used both the MTAI and the Edwards Personal

¹N.A.Flanders, "Integrating Theory and Practice in Teacher Education", Theoretical Bases for Professional Laboratory Experiences in Teacher Education, The Association for Student Teaching, 1965, (W.C.Brown Co.Inc.).

²0.McCraken, Changes in the Personality, Attitudes and Classroom Behavior of Beginning Elemenatry Teachers in the Niles Township, Niles, Illinois, (Dissertation Abstracts 27:4).

³V.R.Renfro, A Study of the Relationship Between -

Preference Schedule (EPPS) as a pre, mid and post test for student teachers during an eighteen week practice teaching session. He found no significant difference in the three sets of test scores. The MTAI results suggested that student teachers score higher than cooperating teachers.

Holl studied the relationship between the attitude changes of student teachers to the attitudes of supervising teachers. The testing instruments were an MTAI and the F-scale, an autocratic-democratic continuum. The pre-test and post-test MTAI scores showed no significant differences. With the F-scale results it was stated that "...there seems to be no conclusive evidence from the study that the attitudes of student teachers, as measured on the F-scale, autocratic-democratic continuum are affected by the attitudes held by their respective supervising teachers even though some significant changes were found within and between groups."¹

Palmer² attempted to determine whether certain patterns of classroom behavior of student teachers are

-Selected Influences and Changes in Attitude Toward Pupils That Occur During an Eighteen Week Student Teaching Experience, (Dissertation Abstracts 27:1).

¹F.B.Holl, An Analysis of Student Teacher Changes in Attitudes in Relation to Attitudes Held by Their Supervising Teachers, (Dissertation Abstracts 29:1).

²W.F.Palmer, Relationships of Certain Personality, Attitude and Classroom Behavior Factors of Classroom Supervisors and Classroom Teachers, (Doctoral Dissertation, University of North Carolina, 1964, University Microfilms 65-4024).

dependent upon the patterns of behavior of their supervising teachers and/or upon certain personality and attitude factors. The instruments used were the Bowers Teacher Opinion Inventory, the MTAI and the Minnesota Multiphasic Personality Inventory (MMPI). No significant correlation was found between the behavioral scores of the student teachers and their supervising teachers. The two groups had essentially the same measures of personality. The student teachers showed a more positive attitude toward teaching than did the supervising teachers. Also, the instruments were found to have little power in predicting classroom behavior of the student teachers.

Dahl studied attitude change in student teachers during a professional laboratory experience in which supervisory personnel were experimentally controlled. An MTAI was used to measure attitudes. The study found that "...the attitudes of the cooperating teachers and/or university supervisors towards pupils didnot necessarily influence student teachers' attitudes towards pupils in the same direction."¹

Taylor administered an MTAI to student teachers before and after practice teaching. The supervising teacher

¹I.J.K.Dahl, Analysis and Evaluation of Certain Attitudinal and Behavioral Changes in Selected Student Teachers During the Professional Laboratory Experience With an Experimental Variable of Supervisory Personnel, (Dissertation Abstracts 29:11).

completed an MTAI once. The findings of the study were:

The elementary group of student teachers were significantly more similar to the supervising teacher at the end of the practice teaching than before.

The secondary level group of student teachers remained about the same in terms of attitudinal similarity to their supervising teacher.

The supervising teacher's ratings of the elementary level student teachers were each found to be moderately but significantly correlated with both the attitudinal profile similarity score after student teaching and the shift in the profile similarity score.

Secondary level supervising teachers' ratings of their student teachers did not correlate significantly with either of the pupil similarity scores.¹

Anger used the Occupational Characteristics Index to study changes in self perception of student teachers during practice teaching. There were seventy-four cooperating teachers and eight college supervisors involved in the study. The findings were summarized:

1. Student teachers as a group changed significantly on a number of dimensions during the student teaching experience. The changes observed were in the direction of the cooperating teachers' perceptions of their own self-ideal occupational characteristics. The greatest changes were observed on the student teachers' self-ideal image.
2. Those student teachers judged as most successful were significantly more similar to their cooperating teacher in terms of self-ideal perception than were those student teachers judged least successful.
3. Student teachers judged as most successful significantly reduced the differences as measured on the OCI between self-actual and self-ideal perceptions. Those judged as least successful increased the difference.

¹ J.H.Taylor, Some Changes In and Correlates of Attitudinal Profile Similarity Between Student and Supervising Teachers, (Dissertation Abstracts 30:9).

4. The self-ideal perceptions of cooperating teachers and college supervisors were highly similar.¹

Roberts and Blankenship² used the Pupil Control Ideology Form (PCI) to study changes in pupil control ideology of student teachers. The study found that the student teachers' personal control ideology became significantly more custodial during practice teaching. The change was influenced by the cooperating teacher both in direction and in magnitude. The greater the difference between the student teachers' ideas and those of the organization as represented by the cooperating teacher the greater the 'socialization pressure'; the greater the influence tended to be.

Price³ administered a pre-test and a post-test MTAI to forty-five elementary level student teachers before and after practice teaching. Cooperating teachers completed the MTAI once. The findings showed a tendency for the student teacher's MTAI score to shift towards that of the cooperating teacher although there was no significant

¹F.K.Anger, Student Teaching and Perceptions of Student Teachers, Cooperating Teachers and College Supervisors, (Dissertation Abstracts 27:11).

²R.A.Roberts & J.W.Blankenship, The Relationship Between the Change in Pupil Control Ideology of Student Teachers and the Student Teachers' Perception of the Cooperating Teachers' Pupil Control Ideology, (ERIC microfiche ED 037359).

³R.D.Price, Relations Between Cooperating Teachers' and Student Teachers' Attitudes and Performances, (Dissertation Abstracts 26:8).

change in the pre-test and the post-test MTAI scores.

Elliot¹ measured differences in student teachers' ability to accept new ideas and working relationships with other individuals (openess) during practice teaching. He administered a pre and a post test of the College Student Problems Q-sort to the student teachers. The findings showed a significant negative shift in the openess of the student teachers occurred. These significant changes in openess were significantly related to the openess of the student teacher's cooperating teacher but not to the openess of the college supervisor. Further, these changes in the student teacher were not related to percieved qualities of the cooperating teacher or the college supervisor.

STUDIES COMPARING DIFFERENT MODES OF SUPERVISION

This section presents material which attempts to determine whether different supervisory methods have different effects upon student teachers. The most common variation in method is in the feedback mode utilized in the post conference.

Johnston² studied three methods of supervision:

¹R.J.Elliot, Changes in Openess of Student Teachers as a Function of Openess of Supervising and Cooperating Teachers, (Dissertation Abstracts 26:1).

²D.P.Johnston, Selected Aspects of Self-Supervision by Student Teachers, (ERIC microfiche ED 027280).

(1) self-supervision with the use of videotape recordings of the teaching performance and Flander's Interaction Analysis of this performance carried out by the student teacher;(2) a supervisor present in the post-conference and Flander's Interaction Analysis but without the use of a videotape recording of the teaching performance; and (3) a supervisor present with both the student teacher and the supervisor using videotapes and Flander's Interaction Analysis. The student teachers' attitudes were measured by an MTAI administered before practice teaching and then after practice teaching. The practice teaching consisted of two twenty minute lessons of the same content to different classes of five pupils each. The study found no significant relationships between student teachers' attitudes and teaching behavior before student teaching. Supervision tends to promote a significant relationship between attitudes and teaching behavior. The self-supervision(1) tended to promote indirect teaching and higher MTAI scores than the other two methods of supervision.

Wittrock¹ compared the gain scores of pupils on a standardized achievement test(he did not name the test). The pupils were taught by student teachers which recieved one of two types of supervision. One group(experimental

¹M.C.Wittrock, Set Applied to Student Teaching, (Journal of Educational Psychology, 54:4, 1962).

group) were supervised on the basis of what the pupils were to gain from the lesson - instructional objectives. The control group of student teachers were supervised on the basis of process - how they conducted the lesson and the class. The pupils of the experimental group of student teachers obtained better gains in scores than did the pupils of the control group of student teachers.

McNeil¹ studied the effect of using behavioral objectives in the assesement of teacher effectiveness and found when teaching with behavioral objectives (for the pupils) as the criteria of the teaching performance better teaching results were obtained than if goals are not pre-established. To measure teaching effectiveness the grades given to the student teachers by the cooperating teachers were used as the criterion measure.

Leslie² attempted to determine whether matching student teacher to cooperating teacher would produce an improved student teaching performance and student teacher attitude. The matching was based upon several criteria. One group was matched according to sex, socio-economic status, rural-urban background, and religion.

¹J.D.McNeil, Concommittants of Using Behavioral Objectives in the Assesement of Teacher Effectiveness, (The Journal of Experimental Education, 36:1, 1967).

²L.L.Leslie, Improving the Student Teaching Experience Through Selective Placement of Students, (ERIC microfiche, ED 034718).

Another was grouped to personality factors. Attitudes were measured by a pre and post test MTAI. Performance was measured by the cooperating teacher and supervisor evaluations. It was found that matching tended to improve attitude and performance although it could not be shown to have statistical significance.

Stapelton¹ used two rating scales as a basis for comparing two methods of supervision. The rating scales were the Cornell Evaluation Scale for Science Teachers and the Revised Indiana College Rating Scale for Evaluating Student Teachers in the Secondary School. The experimental supervision consisted of at least six visits from the college supervisor involving not less than four team conferences. The conferences required prepared objectives, plans and materials. The student teachers were also required to attend Saturday class seminars. The control supervision consisted of three visits from the college supervisor, each with a conference. The study found significant differences between measured performance of the more intensely supervised experimental group and the control group. The differences existed in both scales and by both the college supervisors' and cooperating teachers' evaluations.

¹M.L. Stapelton, An Evaluation of Two Programs of Student Teacher Supervision by College Supervisors, (Dissertation Abstracts 26:4).

Young designed a study to assess the relative effectiveness of two types of teacher supervision: (1) colleague supervision team, and (2) single supervisor. Both supervision types used videotapes of the teaching performance which consisted of a series of microteaching sessions. It was found that "...colleague supervised interns performed a significantly greater number of specific teaching behaviors..."¹ than did those supervised by the single supervisor.

Ray² studied the effects of observational information upon teacher behavior in student teachers. The results indicated that if supervision is carried out with a conference in which observational data is presented and interpreted the student teacher increases his ratings as measured by ROSCAR II more than if no conference is used or if a conference with data presentation but no interpretation is used.

Heinrich and McKeegan³ tried to determine the differences in teaching behavior of teachers provided with

¹D.A.Young, A Preliminary Report on the Effectiveness of Colleague Supervision on the Acquisition of Selected Teaching Behaviors in a Microteaching Series, (ERIC microfiche ED 038330).

²W.J.Ray, Assessing the Effects of Observational Information upon Changes in the Teaching Behavior of Student Teachers, (Dissertation Abstracts 29:10).

³D.L.Hienrich & H.F.McKeegan, Immediate and Delayed Feedback Procedures for Modifying Teaching Behavior According to a Model of Instruction, (ERIC microfiche ED 028983).

delayed feedback of the lesson and teachers provided with immediate feedback. The immediate feedback consisted of information provided to the teacher while the lesson was in progress by the means of color coded cards. The delayed feedback consisted of a post conference in which the lesson was discussed. They found no significant difference between the two methods.

Kiser, Kohn, and Leonard¹ experimented with three methods of providing feedback:(1) audiotape with supervisor;(2)videotape with supervisor; and(3)supervisor alone. The criterion measure was change in classroom behavior as described by Flanders Interaction Analysis. All subjects in the study were student teachers of English. All groups showed change in behavior but only the videotape group(2) showed statistically significant change, they tended to become more indirect.

Shively, VanMondfrans and Reed² compared four modes of supervision in a microteaching situation:(1)supervisor bases his critique upon a videotape recording of the lesson viewed with the teacher;(2)supervisor bases his critique upon an audiotape recording of the lesson

¹L.Kiser,D.A.Kohn,& A.C.Leonard,Project Evaluation: The Effect of Selected Media Feedback upon the Interactive Behavior of Student Teachers,(ERIC microfiche ED 035599).

²J.E.Shively,A.P.VanMondfrans,& C.L.Reed, The Effect of Mode of Feedback in Microteaching,(ERIC microfiche ED 037791).

listened to with the student teacher;(3)supervisor bases his critique upon the lesson performance alone; and(4) supervisor bases his critique upon the pupils responses to the Stanford Teacher Competence Appraisal Guide(STCAG). The effectiveness of the supervision was measured by the change in the evaluation of the lesson by the pupils (the scores of the STCAG). The study concluded that the most effective modes of supervision were when the bases of evaluation was an audiotape recording of the lesson(2) and when the bases of evaluation was the pupils' responses to the STCAG(4).

Tackman and Oliver¹ investigated four modes of feedback in supervision:(1)pupil feedback alone;(2) supervisor feedback alone;(3)both pupil and supervisor feedback;and(4)neither pupil nor supervisor feedback. The Student Opinion Questionnaire served both as a source of feedback(pupil feedback) and as the basis for determining the effectiveness of the lesson. The results indicated that the pupil feedback alone had a significant effect upon teacher behavior. The supervisor feedback had no significant effect yet interestingly tended to produce a negative effect in that teacher behavior was the opposite of that intended by the supervisor.

¹B.W.Tackman & W.F.Oliver,Effectiveness of Feedback to Teachers as a Function of Source, (Journal of Educational Psychology 59:4,1968).

SUMMARY

From this review of literature it appears that a change in the attitudes of student teachers can be expected to occur during the period of practice teaching but that the nature of the change cannot be predicted with any reliability. However, it is evident that attitudes are variables associated with practice teaching and they are variables that can be quantified. For these reasons attitudes offer a means of comparing effects of various events which might occur to the student teacher during practice teaching. Should the events be systematized such as in the case of supervision methods, attitude measures should offer a basis of comparing the methods employed.

The literature further indicates that the characteristics of effective supervision include such features as: (1) the development of cooperative planning and decision making by the supervisor and the student teacher; (2) openness by both the supervisor and the student teacher; (3) conscious consideration of the human relations aspects of the supervisory process; (4) the attempt to remove elements of threat from supervision; and (5) the attempt to promote independent behavior and evaluation by the student teacher. To a large extent these are the reasons for the use of plan B in this study.



The studies considered in this review of literature failed to show any trends in attitude change except that different studies tend to come up with different findings. This is an indication of the complexity of the situation under study. Any one criterion measure seems to be inadequate since it appears likely that change is or can be occurring within the student teachers in any number of ways, none of which may fit into the man-made categories the tests are sampling from. For this reason two testing instruments were used. The MTAI data could be related to the studies considered in this review and in this way provide a basis of interpretation of the analysis of the MTAI results. The DTB provides a larger factor field from which to sample. This trait of the DTB (eight factor scores per test) seems to be a requirement suggested by these studies. The student teacher is being affected by many variables besides that method of supervision, any one of which may be critical in influencing the measurement of a testing instrument used at a particular time and this critical variable(s) can be expected to vary from time to time. However, by systematizing at least one variable (faculty supervision method) a systematic and differential effect upon the dependent variable (student teacher attitude) may be produced and lead to some conclusive generalizations.

CHAPTER III
EXPERIMENTAL DESIGN

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EXPERIMENTAL DESIGN

BASIC DESIGN

The study was designed to compare two methods (A and B) of supervising student teachers during the practice teaching session. The bases for comparison were changes in attitudes of the student teachers. Attitudes were quantitatively described by means of two attitude scales: (1) the Minnesota Teacher Attitude Inventory¹ (MTAI) and (2) the Dimensions of Teacher Beliefs² test (DTB). All student teachers involved in the study completed both attitude scales; one week prior to the beginning of practice teaching and then again at the end of the third week of practice teaching. It should be noted that the study occurred in the second of two five week practice teaching sessions that the student teachers participated in.

¹W.W.Cook, C.H.Leeds, & R.Callis, Minnesota Teacher Attitude Inventory, Form A, (The Psychological Corp.1951).

²L.J.Webling & W.W.Charters Jr., Dimensions of Teacher Beliefs About the Teaching Process, (American Educational Research Journal 6:1,1969). The test was described in this article and the items given.

Faculty supervisors administered the plans of supervision during the first three weeks of the practice teaching session. Each faculty supervisor administered both plans A and B. Each student teacher received either plan A or plan B. The supervisor observed the student teacher twice during the three weeks.

DESCRIPTION OF PLAN A

This plan consists of observation of the teaching performance followed by an evaluative conference. The status of the supervisor relative to that of the student teacher is fixed with the supervisor in an authoritative role - directive and evaluative.

In plan A there is no conference between the supervisor and the student teacher before the teaching performance. The observation consists of taking notes throughout the teaching performance with attention being given to noticable traits of the student teacher. The observation is followed by a conference between the supervisor and the student teacher. The supervisor describes his impressions of the teaching performance. The opinions and impressions expressed are those which the supervisor feels are possibly useful, informational or encouraging to the student teacher. The supervisor answers questions which the student teacher may have but, the supervisor does not encourage questioning by the student teacher.

Then, in summary the supervisor states his general evaluation(good,fair,great,poor,etc.) of the teaching performance.

This supervisory plan tends to involve little personal contact between the supervisor and the student teacher. Their status is fixed as 'supervisor' and 'student teacher'. The supervisor observes the teaching performance and states his opinions and/or evaluation of the lesson. The supervisor is a directive, evaluative authority.

DESCRIPTION OF PLAN B

Plan B is a method of supervision that involves a conference(pre-conference) between the supervisor and the student teacher before the teaching performance to establish a 'contract' between them in which they agree upon their functions during the supervision. The objectives that the student teacher is attempting to attain in the teaching performance include both content and procedure objectives. The objectives of the supervisor will pertain to his purposes of observation and will give a framework upon which to analyse his observations. The pre-conference is also used to establish a relationship of autonomy and cooperation between the supervisor and the student teacher; the two individuals are working towards a common goal, that of improvement of the student teacher's

performance as a teacher. This requires an evaluation of present conditions upon which further modifications can be suggested for future implementation.

The observation consists of recording the teaching performance by means of written notes. Following observation analysis is carried out by both the supervisor and the student teacher, with both individuals having access to the data collected by the supervisor. This analysis is based upon the framework established in the pre-conference. Patterns of teacher behavior are sought out rather than isolated incidents which may be noticed but have little probable effect upon the pupils. Following analysis the strategy for the conference to follow (the post-conference) is determined. This means that the issues to be dealt with in the post-conference are formulated. Following this is the post-conference which is a discussion between the supervisor and the student teacher (it is not a technical playing out of roles). This discussion is based upon all of the preceding steps. The objective of this discussion is to develop modifications in the teaching plan that are likely to improve the chances of the student teacher attaining the objectives of the teaching performance.

Essentially the differences between plan A and plan B are:

1. The two are structurally different in that plan B:
 - A. includes a pre-conference
 - B. includes an analysis of data period
 - C. includes a strategy period
 - D. the post-conference is a planning session for the next lesson
2. Plan A tends to be subjective in its evaluation and observation
3. Plan B places less emphasis on evaluation as an end in itself
4. Plan B attempts to develop the cooperative functioning of the supervisor and the student teacher.

IMPLEMENTATION

Four faculty supervisors took part in the study. Each supervisor was randomly assigned a number of student teachers to supervise, half by plan A and the other half by plan B. The numerical design is illustrated in figure 2. Before beginning the practice teaching session the student teachers were informed which supervisor they were to have but were not informed of what type of supervision they would receive.

Before the practice teaching session began the supervisors met to discuss and attempt to standardize the

nature of the two plans. A videotape of a teaching performance was observed and evaluated by the supervisors. The evaluations were compared to insure that an agreement in their perceptions of teacher behavior. Typewritten descriptions of the two plans were given to each supervisor(see appendix 2).

Supervisor	n Plan A	n Plan B	
1	4	4	n=8
2	3	3	n=6
3	1	3	n=4
4	6	7	n=13
	n = 14	n = 17	N=31

Figure 2: The numerical design of the study.

During the first three weeks of the five week practice teaching session the supervisors observed each student teacher twice. If plan A were being used with the student teacher the visitations were discontinuous in that the first visitation had no relation to the second, no attempt for following up on plans was made. In essence, each visitation was an entity in itself. There was little attempt on the part of the supervisor to resolve problems which were apparent in the observation. The supervisor simply related the contents of the 'green sheet'(see appendix 3) to the student teacher and answered questions

as they arose. The comments upon the green sheets consisted of notes upon the strengths and weaknesses of the teaching performance.

If plan B were the method of supervision, a continuity between visitations was attempted. The student teacher was observed in two consecutive lessons with that particular class. The pre-conference was limited to fifteen minutes and was used to determine and clarify the goals of the lesson and the supervision. The observation consisted of taking notes verbatim and comments only as they applied to the goals established in the pre-conference.

In both plans the student teachers were to have pre-knowledge of the time the visitations were to occur.

SAMPLE GROUP

The sample group was chosen from a Special Topics in Science class in the Education I section of the 1970-1971 class at the Faculty of Education, University of Manitoba. The class consisted of individuals with a bachelors degree from another faculty (in most cases they were Science graduates) and who intended to teach science in the future. The thirty-one student teachers that would be teaching science in the Metropolitan Winnipeg area during this second session of practice teaching were the subjects of this study.

Each student teacher was assigned a number from a

table of five digit random numbers. The student teachers were then arranged in ascending order of random numbers and assigned sequentially to one of the eight groups. Before this, the four supervisors had indicated the number of student teachers they would supervise; half under plan A and the other half under plan B, hence the need for eight groups.

CRITERION MEASURES

As mentioned previously the two criterion measures were the Minnesota Teacher Attitude Inventory (MTAI) and the Dimensions of Teacher Beliefs test (DTB).

THE MTAI

The MTAI is an inventory of 150 items about teacher-pupil relationships "...designed to measure those attitudes of a teacher which predict how well he will get along with pupils in interpersonal relationships...".¹ Each statement is scored 1, 0, or -1. The range of scores is 150 to -150. A high score is assumed to indicate that the teacher is "...able to maintain a state of harmonious relations with his pupils characterized by mutual affection and sympathetic understanding."² A low score would be

¹W.W.Cook, C.H.Leeds, & R.Callis, Minnesota Teacher Attitude Inventory Manual, (The Psychological Corp. 1951).

²Ibid.

indicative of "...the teacher who attempts to dominate the classroom. He may be successful and rule with an iron hand,...or he may be unsuccessful and become nervous, fearful and distraught".¹

The MTAI was used in this study to produce a single measure of a 'teacher attitude' towards interpersonal relationships. Since the two supervisory methods differed in their approaches it seemed that there might be differential effects upon the student teacher's attitudes towards interpersonal relationships.

THE DTB

The DTB is an 86 item inventory that was developed by L.J.Webling and W.W.Charters Jr. and described in the American Educational Research Journal of January, 1969. The DTB samples a similar area as the MTAI but differs in three major ways:

1. The MTAI stresses the effective or evaluative components of teacher attitudes whereas item construction here [DTB] sought to emphasize cognitive aspects.
2. The MTAI measures a dimension thought to distinguish effective from ineffective teachers, or good teaching from poor teaching. The present investigators [Weblings and Charters] did not attempt to formulate dimensions within the framework of their relevance for teacher effectiveness.
3. [The MTAI has] the notion that the maximum explanatory power is attained from variations

¹Ibid.

along a single continuum...The findings of this investigation indicate that conceptual systems are complex organizations of beliefs, consisting of several discrete sets of interrelated concepts.¹

The DTB is scored to produce a series of eight scores for each test. Each score corresponds to a particular dimension or factor measured. The eight factors are described in terms of individuals that obtain high scores for that factor:

1. Subject Matter Emphasis:

...Represents the teacher's belief that the subject matter content of a course...has educational in and of itself...In any event, Subject Matter Emphasis is most aptly phrased in the teacher's conception that the student must master the course content.

2. Personal Adjustment Ideology:

...The institutional process should be organized around student interests and needs in order to contribute to social and emotional development... A central ingredient is the view that teachers should take an intense interest in students and their problems. Yet the belief does not reflect the teacher's inclination to establish warm, personal relationships with them;...Indeed, the belief has the tenor of a verbal commitment to abstract ideas rather than an expression of the teacher's own operating theory of classroom practice.

3. Student Autonomy versus Teacher Control:

...Clearly reflects the teacher's conception of the appropriate locu of control over the classroom learning process - lying either with the teacher or with the students. To assure maximum learning, either the teacher must guide and direct the flow of instructional events or the initiative must be taken by the students and they must be accorded substantial autonomy and freedom from teacher direction. In a sense, it

¹L.J.Wehlings & W.W.Charters Jr., Dimensions of Teacher Beliefs About the Teaching Process, (American Journal Educational Research, 6:1, 1969).

expresses the amount of faith the teacher has in the students and their capacity for spontaneous learning.

4. Emotional Disengagement:

A certain social distance must be maintained between the teacher and the students in the classroom if a group climate conducive to learning is to prevail (and if the teacher is to survive emotionally). The most effective relationship is one in which the teacher holds himself somewhat aloof from the affairs of the students and does not allow himself to become personally engrossed in the concerns and problems of each individual.

5. Consideration of Student Viewpoint:

...Teacher acceptance of empathy as an instructional strategy. For the teacher to be effectively influential, he must have the capacity to take their perspective on the world and to give them his warmth and personal support as needed. He must be sensitive to the feelings of students and display friendliness and consideration in his relationships with them.

6. Classroom Order:

The best learning situation is one in which there is a high degree of order and decorum in the classroom. This dimension appears to reflect a fundamental personality disposition in teaching rather than a purely instrumental belief regarding instructional practices. In any event, it expresses the teacher's belief in conducting the class according to established rules and procedures, quick punishment for those who depart from the rules and procedures, and the elimination of nonsense, noise and distractions.

7. Integrative Learning:

...Students 'truly' understand what they are taught only when they are brought to see relationships between the subject at hand and the broader aspects of their world or are able to connect the subject to their own experiences. In this view, learning extends beyond the confines of a single course or grade to encompass the more general goals of education. The belief deals with teaching methods, but it also reflects a conception of learning as the acquisition of meanings, not just facts.

8. Student Challenge:

To induce learning, the teacher must be sure that the students are constantly challenged by tasks that are beyond their easy grasp...

The gap between accomplishment and goal creates an undertone of strain, or tension, that is an earmark of effective instruction and contributes to a thrust towards learning among the students. Learning only occurs when students (and by implication teachers too) are working and working hard.¹

DEVELOPEMENT OF PLANS OF SUPERVISION

PLAN A

Plan A was designed to represent an authoratarian approach to supervision and to this writer a traditional approach to supervision. A questionnaire was administered to 99 Education I students in an Administration class to determine some of the characteristics of the supervsion that they had recieved in the first session (fall term) of practice teaching. A copy of this questionnaire is in appendix 4. A summary of the results are in table I. The questionnaire data were used in the developement of plan A of the supervision. It was evident from these data that plan B is a form of supervision that is not in common use at the Faculty of Education. In this sense the study compared a more traditional form of supervision (plan A) to one which is not in current use (plan B).

It must be noted that the analysis of these data was not by statistical factor analysis. The factors listed were subjectively derived from the nature of the

¹Ibid.

questions. The ratio of positive responses was calculated from tallies of responses on the completed questionnaires.

CHARACTERISTIC	PERCENT POSITIVE RESPONSE
Notified of visitation in advance	74
Conference before lesson	50
Conference served to clarify objectives	25
Student teacher objectives determined	25
Supervisor objectives determined	15
Post-conference occurred	89
Post-conference basically evaluative	45
Post-conference mainly to assign grade	53

TABLE 1

SUMMARY OF QUESTIONNAIRE RESULTS

From the questionnaire results the general trends of supervision are:

1. Most supervisors notify student teachers of the time of the visitation before it occurs.
2. About half of the supervisions involved a pre-conference of some type.
3. In only about one-quarter of the supervisions were the objectives of the supervisors and the student teachers determined.

4. In only about fifteen percent of the supervisions did the supervisor state his objectives.
5. In most(89%) supervisions the supervisor and the student teacher held a post-conference.
6. In about half of the post-conferences evaluation and the assignment of a grade were the main purposes.

The writer also consulted the Student Teaching Handbook of the Faculty of Education, University of Manitoba for further guidelines. This booklet offered guidelines and principles of supervision and student teaching. No structured plan of supervision was described.

PLAN B

The structure of supervision plan B was taken almost entirely from Robert Goldhammer's book, Clinical Supervision; Special Methods for the Supervision of Teachers.¹

¹R. Goldhammer, Clinical Supervision; Special Methods for the Supervision of Teachers, (Holt, Rhinehart, Winston, 1970).

CHAPTER IV

THE DATA

TABLE 2

A SUMMARY OF THE PRE-TEST MTAI RESULTS (THE COVARIATE)

Supervisor	Plan A	Plan B	
1	$n = 4$ $\bar{x} = 63.75$ $s_d = 21.91$	$n = 4$ $\bar{x} = 60.75$ $s_d = 39.76$	$n = 8$ $\bar{x} = 62.25$
2	$n = 3$ $\bar{x} = 43.66$ $s_d = 5.69$	$n = 3$ $\bar{x} = 30.00$ $s_d = 34.04$	$n = 6$ $\bar{x} = 36.83$
3	$n = 1$ $\bar{x} = 46.00$ $s_d = 0.00$	$n = 3$ $\bar{x} = 37.33$ $s_d = 37.42$	$n = 4$ $\bar{x} = 39.50$
4	$n = 6$ $\bar{x} = 33.66$ $s_d = 22.76$	$n = 7$ $\bar{x} = 35.00$ $s_d = 38.20$	$n = 13$ $\bar{x} = 34.48$
$n = 14$ $\bar{x} = 45.29$		$n = 17$ $\bar{x} = 40.59$	

TABLE 3

A SUMMARY OF THE POST-TEST MTAI RESULTS

Supervisor	Plan A	Plan B	
1	$n = 4$ $\bar{x} = 47.50$ $s_d = 24.09$	$n = 4$ $\bar{x} = 47.75$ $s_d = 49.93$	$n = 8$ $\bar{x} = 47.63$
2	$n = 3$ $\bar{x} = 39.66$ $s_d = 35.50$	$n = 3$ $\bar{x} = 13.67$ $s_d = 7.57$	$n = 6$ $\bar{x} = 26.67$
3	$n = 1$ $\bar{x} = 43.00$ $s_d = 0.00$	$n = 3$ $\bar{x} = 20.33$ $s_d = 11.06$	$n = 4$ $\bar{x} = 26.00$
4	$n = 6$ $\bar{x} = -.33$ $s_d = 39.32$	$n = 7$ $\bar{x} = 15.00$ $s_d = 38.57$	$n = 13$ $\bar{x} = 7.92$
	$n = 14$ $\bar{x} = 25.00$	$n = 17$ $\bar{x} = 23.41$	

TABLE 4
A SUMMARY OF THE UNIVARIATE ANALYSIS OF COVARIANCE
OF THE MTAI SCORES

Source of variation	df	Mean sum	F ratio	p	Significance
Supervisor	3	788.59	.9548	.4315	n.s.
Supervision type	1	24.71	.0299	.8643	n.s.
Interaction	3	423.91	.5133	.6774	n.s.
Within cell	22	825.90			

NOTE: The multiple regression of the variable to the covariate equals 0.6068
:The F ratio of this was 12.82 and was significant at $\alpha = 0.10$ level with 1 and 22 degrees of freedom.

TABLE 5

A SUMMARY OF THE DIFFERENCE SCORES OF THE MTAI

Supervisor	Plan A	Plan B	
1	$n = 4$ $\bar{x} = -16.25$ $s_d = 13.04$	$n = 4$ $\bar{x} = 6.66$ $s_d = 13.31$	$n = 8$ $\bar{x} = -6.43$
2	$n = 3$ $\bar{x} = -4.00$ $s_d = 35.79$	$n = 3$ $\bar{x} = -16.33$ $s_d = 29.50$	$n = 6$ $\bar{x} = -10.17$
3	$n = 1$ $\bar{x} = -3.00$ $s_d = 0.00$	$n = 3$ $\bar{x} = -17.00$ $s_d = 27.73$	$n = 4$ $\bar{x} = -13.00$
4	$n = 6$ $\bar{x} = -34.00$ $s_d = 31.71$	$n = 7$ $\bar{x} = -11.50$ $s_d = 14.46$	$n = 13$ $\bar{x} = -22.75$
	$n = 14$ $\bar{x} = -20.29$	$n = 17$ $\bar{x} = -9.93$	

TABLE 6

A SUMMARY OF THE ANALYSIS OF VARIANCE OF
THE DIFFERENCE SCORES
OF THE MTAI

Source of variation	df	Mean sum	F ratio	p	Significance
Supervisor	3	461.35	.7581	<.5302	n.s.
Supervision type	1	868.81	1.4277	<.2455	n.s.
Interaction	21	641.80	1.0546	<.3893	n.s.
Within cell	21	608.55			

TABLE 7

A COMPARISON OF THE PRE-TEST MTAI SCORES TO THE
POST-TEST MTAI SCORES BY USE OF A
t-TEST FOR DEPENDENT MEASURES

The test statistic: $t_{1-\frac{\alpha}{2}, n-1} = \frac{\bar{d}}{s_d / \sqrt{n}}$

$$\bar{d} = \sum_{i=1}^n (x_{i1} - x_{i2}) / n = -18.48$$

$$s_d = \sqrt{\frac{(d_i - \bar{d})^2}{n - 1}} = 27.60$$

x_{i1} = the pre-test score of subject i

x_{i2} = the post-test score of subject i

n = the number of subjects

$$t = 3.72$$

SIGNIFICANT AT $\alpha = 0.10$

TABLE 8

A CORRELATION MATRIX FOR THE VARIABLES AND COVARIATES OF THE DTB RESULTS. THE VARIABLES ARE (1) CONSIDERATION OF STUDENT VIEWPOINT (CSV); (2) STUDENT CHALLENGE (SC); (3) EMOTIONAL DISENGAGEMENT (EMOD). THE COVARIATES ARE THE PRE-TEST SCORES ON THESE SAME VARIABLES

	CSV	SC	EMOD	CSV _{co}	SC _{co}
CSV	1.00				
SC	.3736	1.00			
EMOD	-.2852	-.1451	1.00		
CSV _{co}	.5965	.1945	-.3195	1.00	
SC _{co}	.1096	.5601	.2073	.3185	1.00
EMOD _{co}	-.0761	-.1419	.4665	-.1081	.1946

TABLE 9

THE VARIANCE OF THE THREE DTB FACTORS
USED AS DEPENDENT VARIABLES

Variable	Variance	Variance with the effect of the covariate removed
Consideration of student viewpoint	5.98	4.35
Student challenge	8.96	6.34
Emotional disengagement	3.90	2.93

df = 24

df = 21

TABLE 10

THE RESULTS OF THE MULTIVARIATE ANALYSIS OF THE DTB
DATA: THE MAIN EFFECT DUE TO SUPERVISOR

$$H_0: \sum \alpha_i^2 = 0$$

The F ratio for the multivariate
test for equality of mean vectors = 3.2735

The degrees of freedom are 9 and 54

p is less than 0.0031

SIGNIFICANT AT $\alpha = 0.10$

Variable	Univariate F	Signif.	Stepdown F	Signif.
Consideration of student viewpoint	3.6536	*	3.6536	*
Student challenge	3.2967	*	2.9693	*
Emotional disengagement	3.1421	*	3.1887	*

TABLE 11

THE RESULTS OF THE MULTIVARIATE ANALYSIS OF THE DTB
DATA: THE MAIN EFFECT OF SUPERVISION

$$H_0: \sum \beta_j^2 = 0$$

The F ratio for the multivariate
test for equality of mean vectors = .2425

The degrees of freedom are 3 and 22

NOT SIGNIFICANT AT $\alpha = 0.10$

TABLE 12

THE RESULTS OF THE MULTIVARIATE ANALYSIS OF
VARIANCE OF THE DTB DATA: THE MAIN EFFECT
DUE TO INTERACTION:
 $H_0: \sum \alpha \beta_{ij}^2 = 0$

The F ratio for the multivariate
test for equality of mean vectors = 2.3594

The degrees of freedom are 9 and 54

p is less than .0252

SIGNIFICANT AT $\alpha = 0.10$

Variable	Univariate F	Signif.	Stepdown F	Signif.
Consideration of student viewpoint	1.9145	n.s.	1.9145	n.s.
Student challenge	2.4617	*	2.9062	*
Emotional disengagement	1.7955	n.s.	2.3217	n.s. (p < 0.1031)

TABLE 13
 STATISTICS FOR REGRESSION ANALYSIS
 WITH THREE COVARIATES

Variable	Multiple r	F	Signif.	p
Consideration of student viewpoint	.6026	3.99	*	<.02
Student challenge	.6164	4.29	*	<.02
Emotional disengagement	.5852	3.65	*	<.03

NOTE: The multiple r is the correlation between that variable and all of the covariates.

TABLE 14

THE RESULTS OF MULTIVARIATE ANALYSIS OF COVARIANCE
OF THE DTB DATA: THE MAIN EFFECT DUE TO SUPERVISOR

$$H_0: \sum \alpha_i^2 = 0$$

The F ratio for the multivariate
test for equality of mean vectors = 1.6235

The degrees of freedom are 9 and 46

p is less than .1365

NOT SIGNIFICANT AT $\alpha = 0.10$

Variable	Univariate F	Signif.	Stepdown F	Signif.
Consideration of student viewpoint	3.33	*	3.33	*
Student challenge	0.1566	n.s.	0.49	n.s.
Emotional disengagement	2.01	n.s.	1.45	n.s.

TABLE 15

THE RESULTS OF MULTIVARIATE ANALYSIS OF COVARIANCE
OF THE DTB RESULTS: THE MAIN EFFECT
OF SUPERVISION TYPE

$$H_0: \sum \beta_j^2 = 0$$

The F ratio for the multivariate
test for equality of mean vectors = .1475

The degrees of freedom are 3 and 19

NOT SIGNIFICANT AT $\alpha = 0.10$

TABLE 16

THE RESULTS OF THE MULTIVARIATE ANALYSIS OF COVARIANCE
OF THE DTB DATA: THE MAIN EFFECT DUE TO INTERACTION
 $H_0: \sum \alpha \beta_j^2 = 0$

The F ratio for the multivariate
test for equality of mean vectors = .7818

The degrees of freedom are 9 and 43

NOT SIGNIFICANT AT $\alpha = 0.10$

CHAPTER IV

THE DATA

DESCRIPTION OF DATA:

The data collected consisted of two sets of MTAI scores and two sets of DTB scores. Before the student teachers began the second session of practice teaching they each completed a MTAI and a DTB test. These will be referred to as the pre-test MTAI and the pre-test DTB respectively. Upon completion of three weeks of practice teaching (the whole session consisted of five weeks) all student teachers completed an MTAI and a DTB test. These tests will be referred to as the post-test MTAI and the post-test DTB respectively. For each student teacher in the study we collected four sets of scores; the pre-test MTAI, the pre-test DTB, the post-test MTAI and the post-test DTB.

The analysis of the data consisted basically of analysis of variance and analysis of covariance. Since there were four supervisors involved in the study, each using two methods of supervision; the design used was a two by four two factor. All analyses were carried out by a computer using the Finn program. The t-test comparison

of pretest MTAI to post-test MTAI scores was the only statistical analysis the writer did by 'hand'.

The level of significance for all analyses was chosen as $\alpha = 0.10$.

ANALYSIS OF THE MTAI SCORES

The MTAI data was statistically treated in three ways:

1. Analysis of covariance using a two factor design.
2. Analysis of variance using the difference scores (pre-test MTAI - post-test MTAI) as the dependent variable.
3. Comparison (t-test) of pre-test MTAI scores to post-test MTAI scores.

ANALYSIS OF COVARIANCE

This analysis was conducted under a four by two design with the pre-test MTAI scores used as the covariate and the post-test MTAI scores used as the dependent variable. The data are shown in tables two and three, the results of analysis are shown in table four.

The correlation between the dependent variable and the covariate is significant at the $\alpha = 0.10$ level.

The F ratio for the main effects due to the supervisor is not significant at the $\alpha = 0.10$ level.

The F ratio for the main effects due to supervision

type is not significant at the $\alpha = 0.10$ level.

The F ratio for the interactive effects of supervisor with supervision type is not significant at the $\alpha = 0.10$ level.

ANALYSIS OF VARIANCE

This analysis was carried out as a four by two univariate design. The dependent variable was the difference between the pre-test MTAI score and the post-test MTAI score for each subject. The data are shown in table five and the results of analysis are shown in table six.

The F ratio for the main effects due to supervisor is not significant at the $\alpha = 0.10$ level.

The F ratio for the main effect due to supervision type is not significant at the $\alpha = 0.10$ level.

The F ratio for the interactive effects of supervisor with supervision type is not significant at the $\alpha = 0.10$ level.

COMPARISON OF THE PRE-TEST MTAI TO POST-TEST MTAI SCORES

The comparison was conducted by the use of a t-test for dependent measures. The t-statistic used and the results of the test are shown in table seven.

The pre-test MTAI scores do significantly differ from the post-test MTAI scores at the $\alpha = 0.10$ level.

ANALYSIS OF DTB SCORES

The DTB scores were statistically treated in two ways:

1. Multivariate analysis of variance
2. Multivariate analysis of covariance.

MULTIVARIATE ANALYSIS OF VARIANCE

A four by two multivariate design was used for analysis. The dependent variables were the scores on the three factors of the DTB;

- a) Consideration of Student Viewpoint
- b) Student Challenge
- c) Emotional Disengagement.

The results of analysis are shown in tables ten, eleven and twelve.

The multivariate F ratio for the main effects due to supervisor is significant at the $\alpha = 0.10$ level.

The univariate F ratio for the main effects of supervisor using the score on the factor Consideration of Student Viewpoint (CSV) is significant at the $\alpha = 0.10$ level. The univariate step-down F ratio for the supervisor main effect using CSV as the dependent variable is also significant at the $\alpha = 0.10$ level.

The univariate and step-down F ratios for the main effects of supervisor using the score on the DTB factor Student Challenge as the dependent variable are significant

at the $\alpha = 0.10$ level.

The univariate and step-down F ratios for the main effects of supervisor using the score on the DTB factor Emotional Disengagement are significant at the $\alpha = 0.10$ level.

The multivariate F ratio for the main effects due to supervision type is not significant at the $\alpha = 0.10$ level.

The univariate and step-down F ratios for supervision type using any of three dependent variables are not significant at the $\alpha = 0.10$ level.

The multivariate F ratio for the interactive effects of supervisor with supervision type is significant at the $\alpha = 0.10$ level.

The univariate and the step-down F ratios for the interactive effect using Consideration of Student Viewpoint as the dependent variable are not significant at the $\alpha = 0.10$ level.

The univariate and step-down F ratios for the interactive effects using the score on the factor Student Challenge as the dependent variable are significant at the $\alpha = 0.10$ level.

The univariate and step-down F ratios for the interactive effects using the scores on the factor Emotional Disengagement as the dependent variable are not significant at the $\alpha = 0.10$ level.

MULTIVARIATE ANALYSIS OF COVARIANCE

1. Four by two multivariate design was used to analysis. The covariances were the pre-test DTB scores on the following factors:

- a) Consideration of Student Viewpoint
- b) Student Challenge
- c) Emotional Disengagement.

The dependent variables were the post-test DTB scores on the same three factors.

The correlations between all variables and covariates used in this analysis are shown in table eight. The variances of the dependent variables before and after the effects of the covariates have been removed are shown in table nine. The results of the analysis of covariance are shown in tables fourteen, fifteen and sixteen. The statistics for regression analysis are shown in table thirteen.

Regression analysis shows that the dependent variable, Student Challenge is significantly ($\alpha = 0.10$) correlated to the three covariates.

Regression analysisi shows that the dependent variable Emotional Disengagement is significantly ($\alpha = 0.10$) correlated to the three covariates.

The multivariate F ratio for the main effects of supervisor is not significant at the $\alpha = 0.10$ level.

The univariate and step-down F ratios for the main

effects due to supervisor using the score on the factor Consideration of Student Viewpoint are significant at the $\alpha=0.10$ level.

The univariate and the step-down F ratios for the main effects due to supervisor using the score on the factor Student Challenge as the dependent variable are not significant at the $\alpha=0.10$ level.

The univariate and the step-down F ratios for the main effects due to supervisor using the score on the factor Student Challenge as the dependent variable are not significant at the $\alpha=0.10$ level.

The univariate and the step-down F ratios for the main effects due to supervisor using the scores on the factor Emotional Disengagement as the dependent variable is not significant at $\alpha=0.10$ level.

The multivariate F ratio for the main effects due to supervision type are not significant at the $\alpha=0.10$ level.

The univariate and step-down F ratios using any one of the three dependent variables for supervision type are not significant at the $\alpha=0.10$ level.

The multivariate F ratio for the interactive effect of supervisor with supervision type is not significant at the $\alpha=0.10$ level.

The univariate and step-down F ratios for the interactive effects of supervisor and supervision type using any

one of the three dependent variables are not significant at the $\alpha=0.10$ level.

DISCUSSION OF THE DATA ANALYSIS

In both the analysis of variances and the analysis of covariance, the fixed effects model was employed due to the nature of the two factors: (1) supervisor (four levels); and (2) supervision type (two levels).

For the analysis of variance the model is:

$$x_{ijk} = \mu + \alpha_i + \beta_j + \alpha\beta_{ij} + e_{ijk}$$

For the analysis of covariance the model is:

$$y_{ijk} = \mu + \alpha_i + \beta_j + \alpha\beta_{ij} + \delta(x_{ijk} - \bar{x} \dots) + e_{ijk}$$

Where:

α_i = main effects due to supervisor

β_j = main effects due to supervision type

$\alpha\beta_{ij}$ = interactive effects of supervisor and supervision type

$\delta(x_{ijk} - \bar{x} \dots)$ = effects due to the covariates.

ANALYSIS OF MTAI SCORES

The hypotheses to be tested with the MTAI scores as criteria are:

a) $H_0: \sum_{i=1}^I \alpha_i^2 = 0$

b) $H_0: \sum_{j=1}^J \beta_j^2 = 0$

c) $H_0: \sum_{i=1}^I \sum_{j=1}^J \alpha\beta_{ij}^2 = 0$

In both analyses, the analysis of covariance with the post-

test MTAI scores as the dependent variable and the analysis of variance with the difference scores as the dependent variable. We failed to reject any of the three hypotheses. In both cases the denominator used in determining the F ratio, a measure of the variances of the scores, was relatively high as is noted in tables four and six, the Mean Square within cell. This is particularly evident when compared with the variance measures of the DTB scores of table eight.

ANALYSIS OF COVARIANCE OF THE MTAI SCORES

Using the post-test MTAI scores as the dependent variable and the pre-test MTAI scores as the covariate:

1. We fail to reject

$$H_0: \sum_{i=1}^I \alpha_i^2 = 0$$

2. We fail to reject

$$H_0: \sum_{j=1}^J \beta_j^2 = 0$$

3. We fail to reject

$$H_0: \sum_{i=1}^I \sum_{j=1}^J \alpha \beta_{ij}^2 = 0$$

The analysis revealed no significant systematic variances in the MTAI scores that could be attributed to either supervision type or supervisor.

ANALYSIS OF VARIANCE OF THE DIFFERENCE SCORES

The difference scores are the scores obtained from subtracting the subject's pre-test MTAI score from the

post-test score. Using the difference scores as the criteria:

1. We fail to reject

$$H_0: \sum_{i=1}^I \alpha_i^2 = 0$$

2. We fail to reject

$$H_0: \sum_{j=1}^J \beta_j^2 = 0$$

3. We fail to reject

$$H_0: \sum_{i=1}^I \sum_{j=1}^J \alpha \beta_{ij}^2 = 0$$

The analysis reveals the significant systematic differences in variance of the difference scores that could be attributed to either supervisor or to supervision type. It should be pointed out that although the variance is high the F ratios have increased in value perhaps indicating that the difference scores may serve as a more sensitive criterion measure than the MTAI scores alone. This means that the difference scores may detect differences in the variance due to treatment effects that the other analysis may miss due to a lack of power.

The results from the analysis of covariance and analysis of variance in difference scores would mean one of two things:

1. The treatment effects do not cause any systematic change in attitudes in the student teachers. This is supported in that the treatment (supervision) was applied only twice between the pre-test and the post-test. In this

time interval many other situations are occurring in the subjects' lives that may and probably do have a greater impact upon his attitude generator - situations in the classroom in particular. Further, the supervisory plans were not rigorously standardized.

2. The testing instrument is not sensitive enough to detect attitude changes which are occurring. This is supported in that the variance in both the pre-test MTAI scores and the post-test MTAI scores is very large - almost negating the possibility of obtaining a significant F ratio. However, it is not supported by the next analysis because there is a systematic shift in pre and post attitudes as measured by the MTAI in that instance.

However, whether assuming our testing device to be adequate or not, we can say that in using the MTAI scores as the dependent variable there is not systematic change in attitudes of student teachers during practice teaching that can be attributed to differences in supervisor or in supervision type.

COMPARISON OF PRE-TEST MTAI SCORES TO POST-TEST MTAI SCORES

A t-test for dependent samples was employed for the

comparison. The pre-test MTAI scores were a sample of scores from a population and the post-test scores were a sample of scores from a population and the post-test scores were a sample of a dependent sample.

The hypothesis to be tested was:

$$H_0: u_1 - u_2 = 0$$

against:

$$H_1: u_1 - u_2 \neq 0$$

We reject the null hypothesis at the 0.10 level of significance and accept that the pre-test MTAI scores are different from the post-test MTAI scores. With almost every subject the MTAI score decreased after he had taught for three weeks, indicating that the student teacher tends to become less open, understanding and sympathetic in his attitudes towards pupils and to become more authoritative and directive in his attitudes towards pupils.

ANALYSIS OF THE DTB SCORES

The DTB test yields eight scores, one for each of eight factors. Though multivariate covariate analysis using all eight factors was carried out, three factors showed evidence of detecting differences in the treatment effects. Three factors used in the analysis presented in this paper were: (1) Consideration of Student Viewpoint (2) Student Challenge, and (3) Emotional Disengagement.

With DTB scores as the criterion measure, the variance is considerably reduced as compared to that of the MTAI - this means a more sensitive test instrument and the expectation was borne out in the analysis.

In using the particular computer program of this analysis both multivariate and univariate F ratios were computed and described. Further, in the univariate analysis a step-down F ratio is also computed. This is an F ratio for one particular dependent variable (out of a possible three) with the variance due to the preceding dependent variable(s) removed. For these reasons the tests for each main effect includes seven F ratios:

(1) one overall or multivariate F ratio for that particular main effect (α_i , β_j , or $\alpha\beta_{ij}$); (2) three univariate F ratios, one for each dependent variable; and (3) three step-down F ratios, one for each dependent variable.

This tends to make interpretation of analysis somewhat complex.

MULTIVARIATE ANALYSIS OF VARIANCE

In considering the null hypotheses, the overall, multivariate F ratios will be considered first then three sections discussing the overall results and those results of the univariate analysis.

Using the three dependent variable in multivariate analysis:

1. We reject

$$H_0: \sum_{i=1}^I \alpha_i^2 = 0$$

2. We fail to reject

$$H_0: \sum_{j=1}^J \beta_j^2 = 0$$

3. We reject

$$H_0: \sum_{i=1}^I \sum_{j=1}^J \alpha\beta_{ij}^2 = 0$$

In rejecting $H_0: \sum_{i=1}^I \alpha_i^2 = 0$, we assume that the four supervisors involved in the study have significantly different effects upon the attitudes of the student teachers. From table ten it can also be noted that on each individual dependent variable the null hypothesis is rejected. This indicates that contact with a particular supervisor twice in a three week period tends to affect the attitudes of a student teacher and in a different way than if the contact had been with another supervisor during that time.

In failing to reject $H_0: \sum_{j=1}^J \beta_j^2 = 0$, we assume that the two supervisory plans have no significantly different effects upon the attitudes of the student teachers. All univariate tests results in non-significant F ratios as well. To an extent this was to be expected since the standardization of the two plans was not rigorous, however, perhaps there were no effects due to supervision type and standard methods were applied.

In rejecting $H_0: \sum_{i=1}^I \sum_{j=1}^J \alpha\beta_{ij}^2 = 0$, we assume that the interaction of the supervisor with supervision type causes

significantly differential effects upon the attitudes of the student teachers. Only one of the dependent variables analyzed by the univariate F ratio showed significant difference in terms of interaction. This variable was Student Challenge. This outcome could be expected since different supervisors would have differing effectiveness under plan A as compared to plan B.

MULTIVARIATE ANALYSIS OF COVARIANCE

From table thirteen it can be observed that each covariate is effective in removing variance from the criterion measures.

Using the pre-test DTB scores on the three factors used as covariates and the post-test scores on the same three factors as dependent variables:

1. We fail to reject

$$H_0: \sum_{i=1}^I \alpha_i^2 = 0$$

2. We fail to reject

$$H_0: \sum_{j=1}^J \beta_j^2 = 0$$

3. We fail to reject

$$H_0: \sum_{i=1}^I \sum_{j=1}^J \alpha\beta_{ij}^2 = 0$$

In failing to reject $H_0: \sum_{i=1}^I \alpha_i^2 = 0$, based on the multivariate F ratio we assume that the supervisor had no significantly different effect upon the attitudes of the student teachers. However, the univariate F ratio using the factor. Consideration of Student Viewpoint, as

the dependent variable is significant. This indicates a differential main effect due to the supervisor as measured by this component of the DTB test. This offers support to the interpretation of the analysis of variance and the rejection of $H_0: \sum_{i=1}^I \alpha_i^2 = 0$ in that analysis.

Both $H_0: \sum_{j=1}^J \beta_j^2 = 0$ and $H_0: \sum_{i=1}^I \sum_{j=1}^J \alpha\beta_{ij}^2 = 0$ are not rejected, using the multivariate and univariate F ratios. This infers that the supervision type had no differential effects upon the attitudes of the student teachers nor did the interactive effect of supervisor with supervision type.

The analysis of variance and the analysis of covariance seem to result in contradictory inferences: (1) in the analysis of variance, both the main effects of supervisor and the interaction of supervisor and supervision type have a significant effect upon attitudes of student teachers; and (2) in the analysis of covariance none of the main effects are apparently significant (except in the univariate ANCOVA with the factor Consideration of Student Viewpoint). Two situations can account for this:

1. Although the groups were selected randomly, through chance the subjects were ordered systematically in terms of the three dependent variables. Upon the removal of variance with the introduction of the

covariate, the variance due to treatment was shown to be unsystematic.

2. Upon introduction of the covariates the degrees of freedom in the F ratio were reduced; in this way reducing the power of the test - it became a less sensitive instrument. Because the test had less power, the criterion measures were unable to detect differences which in 'actuality' did exist.

However, both analysis did indicate that the main effect due to supervisor was significant. The rejection of hypothesis one indicates that supervisor and supervision type do interact to cause significant systematic changes in the attitudes of student teachers in a three week period.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

CHAPTER V

SUMMARY

The purpose of this study was to compare two methods of supervising student teachers. The basis of comparison was attitude of the student teacher. The study attempted to determine whether any systematic difference in the attitudes of student teachers existed after practice teaching that could be accounted for by differences in the type of supervision they received or by the supervisor conducting the supervision.

One plan of supervision (plan A) had the supervisor in a directive, evaluative and authoritative role. The other plan (plan B) had the supervisor and the student teacher cooperatively planning the supervision and teaching performance with the goals of the supervision and the teaching performance formulated cooperatively and in advance of the teaching performance.

Thirty-one student teachers enrolled in the Education I program at the Faculty of Education, University of Manitoba and practice teaching in the Metropolitan Winnipeg area were involved in the study. Four supervisors (including the writer) were each im-

plementing both plans of supervision. This was the second session (Spring term) of practice teaching.

One week prior to the start of practice teaching all thirty-one student teachers completed a Minnesota Teacher Attitude Inventory (MTAI) and a Dimensions of Teacher Belief test (DTB). After completing three of the five weeks of practice teaching the thirty-one student teachers again completed both the MTAI and the DTB. During these first three weeks the student teachers had each received two visitations from their supervisor. The supervisor administered either plan A or plan B to the student teacher during the visitations.

The two sets of scores (the pre-test MTAI, the post-test MTAI, the pre-test DTB, and the post-test DTB) served as dependent variables for statistical analysis. the independent variables were: (1) the supervisor (four levels); and (2) the supervision type (two levels). A four by two, two factor design was used in the analysis of variance and analysis of covariance. The hypotheses tested were:

$$1. H_0: \sum_{i=1}^I \alpha_i^2 = 0$$

There are no systematic effects upon the dependent variable due to the main effects of supervisors.

$$2. H_0: \sum_{j=1}^J \beta_j^2 = 0$$

There are no systematic effects upon the dependent variable due to different methods

of supervision.

$$3. H_0: \sum_{i=1}^I \sum_{j=1}^J \alpha \beta_{ij}^2 = 0$$

There are no systematic effects upon the dependent variable due to interaction between the supervisor and the supervision type.

Another hypothesis was suggested heuristically when it was noticed while scoring the MTAI that almost all of the post-test MTAI scores were lower than the pre-test MTAI scores. This difference was tested for statistical significance by the use of a t-test for dependent measures:

$$4. H_0: u_1 - u_2 = 0$$

There is no difference between the population mean of the pre-test MTAI scores and the population mean of the post-test MTAI scores.

The results of analysis did not allow for the formulation of unambiguous conclusions.

$$1. H_0: \sum_{i=1}^I \alpha_i^2 = 0$$

The results of the MTAI data failed to reject this hypothesis. Different supervisors do not cause differences in attitudes of student teachers to develop during three weeks of practice teaching.

The results of analysis of variance of the three DTB factors (Consideration of Student

Viewpoint, Student Challenge, and Emotional Disengagement) indicated that different supervisors do differentially affect the attitudes of student teachers in a three week period. However, the analysis of covariance of these factors failed to reject this hypothesis on all but one of the factors (Consideration of Student Viewpoint). On this basis we tentatively reject this hypothesis and assume that different supervisors do affect the attitudes of student teachers and affect them in a systematically way.

$$2.H_0: \sum_{j=1}^J \beta_j^2 = 0$$

All statistical analyses failed to reject this hypothesis. We assume that the two plans of supervision did not systematically affect the attitudes of student teachers in a different way during three weeks of practice teaching.

$$3.H_0: \sum_{i=1}^I \sum_{j=1}^J \alpha \beta_{ij}^2 = 0$$

The results of the analysis of the MTAI data failed to reject this hypothesis.

The analysis of variance of the three DTB factors rejected this hypothesis. The covariate analysis of the same data failed to reject this hypothesis.

There is some indication that the interaction between supervisor and supervision type may

differentially affect the attitudes of the student teachers during three weeks of practice teaching.

$$4. H_0: u_1 - u_2 = 0$$

The t-test for dependent measures rejected this hypothesis. This indicates that the attitudes of student teachers tend to become more directive and authoritative during practice teaching.

The study indicates that changes are occurring within the student teachers although they are closely related to the type of supervision the student teacher obtains. Nor are the changes closely related to the supervisor who administers the supervision (irregardless of method used) to the student teacher. This raises a question basic to the study: does supervision affect the student teacher? If supervision is not in any way affecting the student teacher it may not function as a method for improving the student teacher's only function should be that of evaluation. However, there are indications in the analyses that supervision does systematically affect the student teachers. Also the possibilities of change in the student teacher is by no means confined to attitudes, changes in such functions as the psychomotor, cognitive, or perceptive may be occurring although not measured. To study these affects it is felt that the time given to supervision

per student teacher should be increased so as to increase the treatment effects and thus allow for specific comparisons between supervision types and supervisors to be made. This writer believes that treatment effects do exist yet due to the nature of this study were not decisively demonstrated. Through rigorous standardization of procedure and increasing the duration of supervision, systematic trends in the data should yield a basis for the determination of functional characteristics of supervisory methods.

SUBJECTIVE ANALYSIS OF PLAN A AND PLAN B

Plan A

In evaluating plan A we must consider the purposes of supervision in order to have some basis for analysis. If the purpose of supervision is mainly one of evaluation only, then plan A would have several definite advantages over plan B. Plan A is easy to administer for it requires only that the supervisor observe a teaching performance, verbalize his impressions and rate it on a grading scale (A,B,C⁺,D or F). This requires only about fifteen minutes in addition to the time taken in observing the lesson; it is low on time consumption. Plan A does not require any effort to be expended by the supervisor in becoming involved in the planning of a lesson, development of plans or resolution of problems. It seemed to this writer that

the supervisor and the student teacher are remote to each other under plan A. The supervisor could have observed the lesson on videotape, videotaped his critique to be viewed by the student teacher and the net effect would have been the same as plan A. In other words, two way communication between the supervisor and the student teacher is very limited. This tends to render plan A easy to administer because the social tension is low since there is really very little social contact, both the supervisor and the student teacher are isolated from one another. The possibility of a personality clash is reduced because personality seems to be suppressed. The process tends to become impersonal and for this reason the assignment of a grade or mark involves no great stress upon the supervisor although this would not necessarily be the case for the student teacher.

If the objective of supervision is to evaluate the teaching performance and use this evaluation as a basis for development and improvement of the student teacher the advantages of plan A are reduced. Since it lacks personal involvement the student teacher tends to remove himself from supervision and in effect simply endures the experience rather than participate in it. Plan A lacks the continuity which this writer feels is essential for a developmental process; a directional development (as opposed to random change) requires sequential ob-

servation and evaluation (or feedback) to change performance so that it is goal directed. The supervisor and the student teacher tended to lack commitment to supervision under plan A, once an evaluation had been stated. The mark seemed to be an end in itself.

PLAN B

Initially it should be stated that plan B requires more time to effectively implement than this study allowed or than plan A requires. The two visitations used in this study did not really permit for the development of a cooperative and open operational relationship between the supervisor and the student teacher. This was an important characteristic of the plan. To some extent (varying with different student teachers) a climate of openness and some cooperative planning was almost immediately present upon the first visitation. Once the supervisor and the student teacher got together to discuss plans in the pre-conference a working relationship was there. However, with some other student teachers a defensive posture was maintained throughout both visitations, the student teacher being reluctant to discuss areas of modification in their teaching performance and in some instances refusing to even consider discussing the possibility of modification. Another factor which influences the time required for implementation of plan B is that of observing sequential classes

in order to obtain some idea of the change or development in the teaching performance. In order for the supervisor and the student teacher to determine whether planned modifications in teaching behavior are being implemented as planned and are having the predicted effects, a number of consecutive visitations must be made. In several instances this planning for development seemed somewhat artificial because only one class was observed after cooperative modification had taken place - much further development would have been desirable.

The above two characteristics of plan B, development of a cooperative and open relationship, and the cooperative development of modifications in the teaching performance are advantages of this method of supervision if the goal of supervision is to improve the teaching behavior of student teachers. Improvement can only come from modification and the direction and nature of modification can only come from the observation and analysis of existing teacher behavior. Modification based on anything else will tend to be directionless and may or may not promote improvement. Modification based upon the expected outcomes (goals) and existing conditions (nature of the class, abilities of the teacher, facilities available, etc.) will tend to lead towards improvement.

One area of difficulty with plan B is with the

assignment of a grade to the student teachers. Should an open relationship be attempted, grade assignment tends to act against this openness. Much of the student teacher's concern in the conferences appears to this writer to be with what grade the supervisor will award him. This situation becomes more critical as the teaching performance is perceived by the student teacher as being inadequate or poor. It seems to this writer that the goals of supervision; to aid in improving teaching performance and to assign a grade to that teaching performance are antagonistic. If cooperative planning is to be developed, it is difficult for the student teacher to offer plans for future teaching which may be opposed to the plans of the supervisor if the supervisor holds a mark over the head of the student teacher. The student teacher will tend to agree with any idea the supervisor might have in order that he (the student teacher) might obtain a high mark. This will also oppose any openness in the discussions which may be developed and indeed is a goal of plan B.

It is felt, then, that plan B is most appropriate when the objective of supervision is the improvement of teaching behavior of the student teacher and enough time per student teacher is available to the supervisor.

STATISTICAL RESULTS

Using the Minnesota Teacher Attitude Inventory as the criterion measure, no systematic changes in the student teacher could be attributed to either the supervisor or the supervision type. This indicates that the supervisor and supervision type had no effect or equal effects upon the attitudes of the student teachers involved in the study. However, when considering the previous statement it should be kept in mind that the variance of the MTAI scores was high and would tend to reduce the power of the test making it less sensitive in detecting treatment variation which might be present.

In comparing the pre-test MTAI scores with the post-test MTAI scores it was shown that a negative shift in the attitudes of the student teachers occurred during practice teaching. This indicates that the student teacher's attitudes become more directive and authoritative than they had been at the beginning of practice teaching. One implication for further study is suggested by this finding: to determine if teaching behavior tends to become more directive and authoritative through the practice teaching session or just teaching in general when attitudes shift in this direction.

The analysis of the Dimensions of Teacher Belief test scores showed somewhat contradictory results to those

of the MTAI data. The results indicate that each of the four supervisors involved in the study had different effects upon the student teachers' attitudes. This suggests that the student teachers' perception of the supervisor influences his (the student teacher) attitudes as a teacher. The way in which the supervisor conducts himself during contact with the student teacher is an important factor in the development of the student teacher.

The effect of the supervisor had more significance than the method of supervision although the supervision type used by a particular supervisor (interaction) did show systematic effects upon student teacher attitudes. This was to some degree expected because some individuals will function better under one method of supervision whereas others will function better under another method of supervision due to individual preferences.

The variances of the scores on the DTB were much lower than those of the MTAI. This makes the DTB, in this study at least, a more powerful test in that it is more sensitive and more likely to detect treatment effects should they be present.

RECOMMENDATIONS

1. Criterion Measure:

- a) This study indicated that the Minnesota Teacher

Attitude Inventory results in a set of scores of high variance. For this reason the MTAI is not sensitive enough to detect changes which may be occurring in the attitudes of student teachers. In future studies of this nature the MTAI is not recommended for use as a criterion measure.

- b) The Dimensions of Teacher Belief test is recommended as a criterion measure for future studies.
- c) Some form of teacher behavior measurement should be made in future studies. These measurements can be used as criterion measures and to determine whether they correlate to attitude measures.

2. Methods:

Various modifications in methods are recommended for future studies in order that particular components of supervision are studied to determine their impact upon the total supervisory plan.

- a) Vary the number of visitations per supervisory plan.
- b) Standardize the methods of the supervisory plan through the use of videotaped supervisory conferences and observed teaching performances.
- c) Standardize the teaching environments of the student teachers.

- d) Vary the mode of feedback used in the post-conference.
- e) Use a particular supervisory plan on student teachers in all subject matter areas and in all grade levels.
- f) Conduct the study in both first and second practice teaching sessions.
- g) The duration of faculty supervision per student teacher should be increased to allow for the effects of treatment to be shown (shown to exist or not to exist).

3. General:

- a) The objectives of supervision should be uniformly and specifically known by the supervisor and the student teacher. The method of supervision should complement these objectives.
- b) The assignment of a grade to the performance of a student teacher should not be a primary objective of supervision.
- c) The nature and effects of the cooperating teachers' supervision should be determined. Further, the effects of the cooperating teachers' supervision should be compared to the effects of the Faculty of Education supervision.

APPENDIX 1
STUDENT TEACHER HANDBOOK

STUDENT TEACHING HANDBOOK

FACULTY OF EDUCATION

UNIVERSITY OF MANITOBA

1970-71

ADMINISTRATION

1. Description of Programs
2. Definition of Terms
3. Student Teaching Office
4. Student Teaching Schedule

PARTICIPANTS IN STUDENT TEACHING

1. Cooperating Teaching
2. Faculty Supervisor

STUDENT TEACHING EXPERIENCE

1. Purpose of Student Teaching
2. Activities of Student Teaching
 - a) Orientation
 - b) Observation
 - c) Participation

THE EDUCATIONAL CONTEXT

1. Code of Ethics
2. The Teacher and the Law

APPENDICES

- A. Student Teaching Schedule
- B. Student Teaching Bibliography
- C. Student Teaching Report (Evaluation Form)

DESCRIPTION OF PROGRAMS

The Faculty of Education offers courses leading to certification in three areas:

Education I

A one year program, subsequent to completion of second year University standing, leading to general certification and preparing teachers for one of the following:

- (i) Nursery School and Kindergarten (Early Childhood Education)
- (ii) Elementary Grades
- (iii) Secondary Grades

Education IB and IIB

A two year program subsequent to high school graduation, combining a year of academic studies and a year of professional studies and leads to certification in the nursery schools, kindergarten, or the elementary grades.

Education IIC (Effective September 1970)

A one year program subsequent to complete first year standing in Arts and Science, leading to general certification in the elementary grades.

DEFINITION OF TERMS

Throughout this manual certain terms will be used in connection with student teaching. The definitions given below, with certain modifications due to situational factors are those agreed upon by the Association of Student Teaching listed in the 28th yearbook of the Association.

Cooperating School

The cooperating school is that school in the Manitoba school system which has agreed to receive student teachers for their student teaching experience.

Cooperating Teachers

Cooperating Teachers are those teachers in the cooperating schools appointed by the Principals of the schools concerned, who receive, supervise, and evaluate the daily experiences of the student teachers.

Faculty Supervisors

The Faculty Supervisors are those staff members of the Faculty of Education or those educators appointed by the Faculty of Education who in cooperation with the principals and cooperating teachers go out to the cooperating schools to advise and evaluate the student teachers.

Student Teaching

Student Teaching is that period of guided teaching during which the student teacher takes increasing responsibility for the work with a given group of learners.

Observation

Observation is that initial phase of the student teaching experience during which the student teacher is merely an onlooker. (See Observation)

Participation

Participation is that phase of the student teaching experience wherein the student teacher as a teacher helper performs some of the more simple tasks associated with the teaching-learning situation. (See Participation)

Student Teacher

The student teacher is an individual enrolled in a certification program at the Faculty of Education who is assigned to a cooperating school to carry on the work of student teaching under the direction of a cooperating teacher.

Director of Student Teaching

The Director of Student Teaching is a staff member at the Faculty of Education who is responsible for the administration of the student teaching program. (See Student Teaching Office)

STUDENT TEACHING OFFICE

The Student Teaching office is located on the second floor of the Faculty of Education Building in Room 322. It is a service department of the Faculty of Education and its function is four fold.

1. Administrative Function

The administrative function of the Student Teaching office is that of student teacher placement. Specifically its function is to organize, supervise, evaluate, and administer the student teaching activities at this University.

2. Vocational Function

The Student Teaching office provides information upon request from prospective employers. In addition arrangements may be made for employer-student interviews. Announcements concerning dates and times of interviews are posted on the bulletin board outside Room 322.

3. Public Relations Function

The Student Teaching office functions as a liaison between the schools and the Faculty of Education.

4. Educational Function

Through the Student Teaching office provision may be made for remedial work. (ex. VTR)

ORGANIZATION

Education I

1. Secondary

Students enrolled in this program spend 10 weeks in the schools. This 10 weeks is comprised of two 5 week blocks, one in the fall term (Oct.19-Nov.20), the other in the spring term (Mar.1-Apr.2). Placement in the first round is entirely within the Greater Winnipeg Area. For the second round every attempt is made to place students in rural schools. This, however, is not always possible since no subsidy for board and lodging away from home is available. Students are as a rule placed in different schools for each round, one round spent in the Junior High the other in the Senior High.

2. Elementary

The student teaching experience for the elementary area is designed to provide the opportunity for student teachers to gain practical experience concurrently with their theory classes. Each student remains assigned to the same cooperating school throughout the academic year. Following an early first round of two weeks (Sept.28-Oct.9) students are placed in classrooms as teacher assistants two days per week for 8 weeks in the fall term and 6 weeks in the spring term. The two days per week are on an alternating basis, Thursday and Friday the first week, Monday and Tuesday the second week, and so on, so as to provide a continuity of student teaching experience. A final round of three weeks (Mar.8-Mar.26) is spent in the school. All student teaching is done in the same school.

3. Early Childhood Education

Students enrolled in Early Childhood Education spend one day per week in a cooperating school for 21 days, Mondays during the fall term and Fridays during the spring term. In addition to school placement, students, under the direction of Dr. I. McIntire conduct nursery classes within the Faculty of Education.

Education IIB and IIC

Each student enrolled in these programs is assigned to one cooperating school throughout the academic year.

1. Elementary

Each student enrolled in this course is placed in a cooperating school as a teacher assistant two days per week. To allow for continuity of experience a block of four consecutive days is available, Thursday and Friday the first week, Monday and Tuesday the second week and so on. A final round of four weeks is spent in the school subsequent to final examinations.

2. Primary

Students enrolled in this program spend approximately 46 days in practice teaching. Students are placed in schools for 1/2 days commencing October 26 and ending November 27. Placements are made in schools in close proximity to The University of Manitoba since classes are held at the Faculty on the complementary 1/2 day. Students are reassigned in the same fashion to schools in the spring term (Mar.1-Apr.2). Students spend a final round of 4 weeks in May subsequent to final examination.

PURPOSE OF STUDENT TEACHING

Ideally, the purpose of student teaching is to harmonize educational theory and practice. It is a time during which the student teacher may conceptualize his role as a teacher and yet look to the cooperating teacher for instructional assistance. Operationally its purpose is to enable the student teacher to observe and practice the various aspects of teaching in a practical (classroom) situation. It provides the student teacher the opportunity to apply the theoretical learnings acquired at the Faculty through course work. Through practice and observation the student teacher has the opportunity to test various teaching styles and to test certain notions of what should be taught and how he should teach it in order to develop an individual and antonomous teaching style. This process of testing and developing assists the student teacher in realizing a teaching style that suits both himself and his pupils and takes into account the strengths and weaknesses of the curriculum.

Ideally the student teacher progresses systematically through four phases (orientation, observation, participation and actual teaching) assuming increasing responsibility for pupil instruction until he is in full charge (with legal limitations - see The Teacher and the Law) of a classroom. Specifically student teaching provides opportunities for the student teacher to:

1. Perform as many as possible of the tasks that he will be expected to perform when he starts his first full-time teaching position.
2. Appraise his basic qualifications for teaching.
3. Participate in, and assume responsibility for teacher responsibilities in public school teaching.
4. Have direct contact with examples of the major phases of a public school's operation.
5. Develop both personal and professional competencies under optimum conditions.
6. Evaluate his competence and readiness to enter teaching.
7. To attain the ability to select, prepare, organize, and use instructional materials. (Curtis et al, 1954, p.54)

ACTIVITIES OF STUDENT TEACHING

Student teaching involves a progressive series of activities beginning with the time the student teacher makes his first contact with the cooperating school right up to and including the actual teaching of a lesson. The time spent in each activity depends on a number of factors, primarily the student teacher himself, the level taught, and the type of pupils. Three such activities in addition to actual teaching may be identified but should not be considered mutually exclusive.

Orientation

Orientation is ideally a period during which the student teaching gains an insight into the customs, practices, and regulations of the cooperating school. Specifically this period provides the student teacher with opportunities to:

1. Get acquainted with the cooperating teacher.
2. Get acquainted with the school, its personnel, and its policies.
3. Learn regulations concerning the arrival and departure times of teachers.
4. Learn rules and regulations governing the conduct of pupils (ie tardiness, misbehaviour, attendance).
5. Learn the supervisory duties of both the cooperating teacher and all other teachers (ie recess supervision, study hall supervision, noon-hour hall duty, lunchroom duties etc.).
6. Find out the specific homeroom duties of the cooperating teacher.

Observation

In general the primary purpose of the observation period is to familiarize the student teacher with the tasks associated with teaching. It is a period of gradual induction into the classroom situation, or as one student teacher put it, "an easing into the saddle of teaching." The period of observation is intended to be systematic, allowing the student teacher to gather data in the school and to interpret that data in the light of theory acquired at the Faculty. While it is important that the student teacher observe all school activities he should pay particular attention to classroom procedures. Specifically the observation phase provides the student teacher with the opportunity to:

1. Acquaint himself with the classroom and its subculture.
2. Acquire a knowledge of the background of the pupils with whom he will be working. See how experienced teachers handle events, both routine and extraordinary.
3. See what methods are employed to avoid discipline problems and what action is taken when such problems cannot be avoided.

Observation continued

4. See the types of educational materials used by teachers and by students and to evaluate their relevance to the lesson.
5. Observe students and their characteristic actions while they are engaged in some informal activity such as going from class to class, awaiting the morning bell etc.
6. See what procedures the supervising teacher uses to facilitate the beginning of classwork.
7. Sensitize himself to the problems of the classroom.
8. Familiarize himself with centres of interest such as the library, the science area, and see what uses are made of this area.
9. Examine the instructional methods used by experienced teachers (i.e. questioning, objectives, etc.)
10. Examine the type, location, and use of classroom records.
11. Review previous bulletins from the principal's office.

Participation

Following the relatively passive experience of planned and systematic observation the student teacher is ready to take a more active role in the teaching-learning process. Participation provides the student teacher opportunities to perform some of the more simple tasks associated with teaching, helping him to fit more smoothly into the classroom situation. Participation does not suggest the indiscriminate dumping of menial tasks upon the student teacher as this may in time inhibit any progress on his part. It is a period during which the student teacher gradually becomes a part of the classroom situation. It is intended that during this phase the student teacher be of some assistance to the cooperating teacher. Specifically the participation phase provides the student teacher opportunities to:

1. Assist the cooperating teacher with routine activities such as:
 - I. helping keep records (See Teacher and the Law)
 - II. grading papers
 - III. preparing instructional materials
 - IV. helping in class routines
 - V. searching library resources
 - VI. presenting a film or filmstrip
 - VII. assisting in co-curricular or curricular activities.

Participation (continued)

2. Become acquainted with school personnel by:
 - I. talking to principal periodically
 - II. arranging if possible to observe other teachers in the building
 - III. lunching with teachers if invited
 - IV. attending staff meetings if invited.
3. Learn precautions taken to ensure pupil safety by:
 - I. learning what procedure to follow in the event of accidents
 - II. locating fire escapes and learning procedures to be followed in fire drills
 - III. noting special precautions taken in physical education classes and industrial arts areas.
 - IV. locating the nurse's room and/or source of first aid supplies.
4. Become acquainted with pupils by:
 - I. making seating charts and/or learning names of pupils
 - II. observing students during class work and noting
 - which pupils appear listless or bored
 - which pupils listen to directions
 - which pupils appear to need help
 - III. inquiring about the basis of pupil grouping and promotional policies
 - IV. assisting individual pupils or groups of pupils.

COOPERATING TEACHER

The University attempts to give the prospective student teacher both a mastery of subject matter and an introduction to some of the concepts of the teaching process and the learning process. Armed with this theoretical foundation, the student teacher must turn to the schools for the integration and application of this knowledge. Such integration and application is facilitated under the supervision and direction of an experienced and competent teacher. Selected by the Principal of a cooperating school on the basis of proven ability as a teacher, the cooperating teacher inducts the student teacher to the daily responsibility of classroom teaching. The guidance of the cooperating teacher is singly the most significant influence upon the student teacher during his student teaching experience because of his continuity of contact with the student teacher. Through daily conference the cooperating teacher is able to anticipate potential stumbling blocks in contemplated methodology and content. He is able to work with the student teacher through problem situations that arise from time to time.

COOPERATING TEACHER continued

It is imperative that the student teacher come to some understanding of the responsibility of the cooperating teacher. On the one hand the cooperating teacher has a responsibility for the continuous improvement of the children in his class. On the other hand he has a responsibility to the teaching profession to make provision for optimum conditions in order to promote growth for the student teacher. In this respect he is responsible for an analysis of the teaching behaviours being demonstrated by the student teacher. The cooperating teacher must find the ways and means to reconcile and discharge these responsibilities.

The following are a few suggestions which may aid the cooperating teacher:

1. Demonstrate various teaching techniques.
2. Encourage planning on the part of student teachers by requiring student teachers to submit lesson plans.
3. Hold conferences (formal or informal) with the student teacher to discuss student teacher's progress.
4. Provide full time teaching experiences for the student teacher.
5. Submit evaluations of student teacher's progress periodically to the student teaching office.
6. Remain available and supportive.

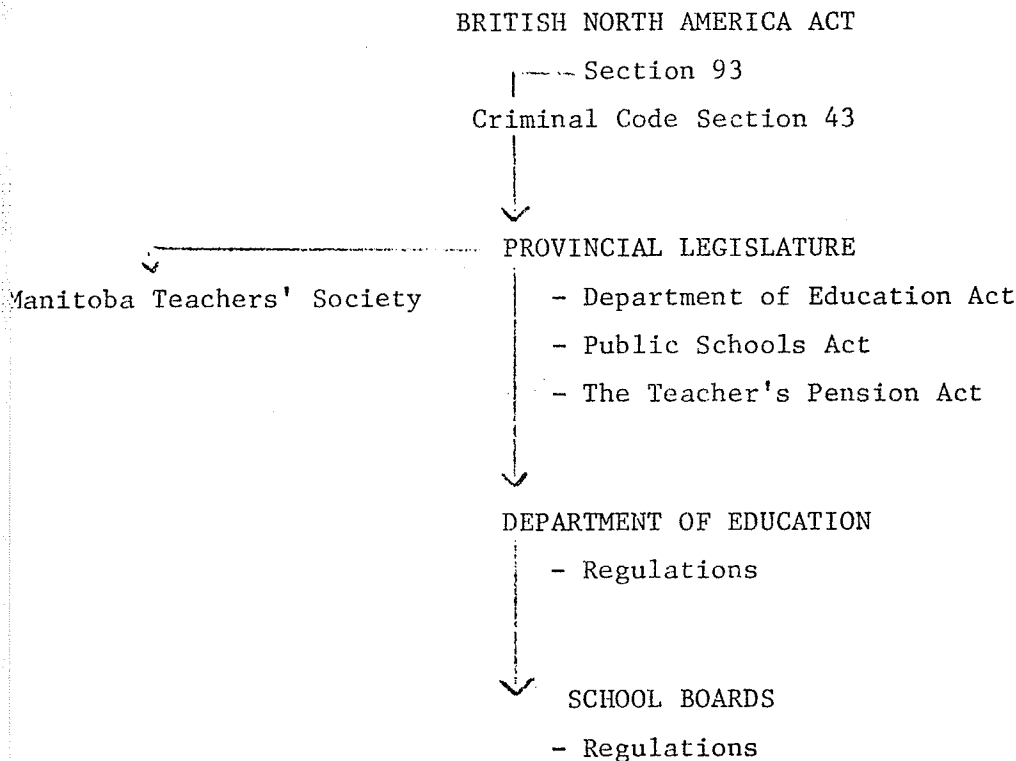
These suggestions are not intended to be prescriptions, merely guidelines. The cooperating teacher is fully in charge of the classroom situation and provides experiences which he deems most valuable.

FACULTY SUPERVISOR

The third member of the student teaching team (student teacher, cooperating teacher,) is the Faculty supervisor. Every student teacher is assigned to a Faculty supervisor. The supervision of the Faculty supervisor closes the gap between the theory and the practice of teaching. Faculty supervisors, generally methods course instructors, are aware of recommended teaching behaviours and look for these behaviours in the classroom. Their role is that of guidance and evaluation. (See Evaluation)

THE TEACHER AND THE LAW

The legal status of the Canadian Teacher is derived from three sources: legislation, judicial powers, and the common law. A brief overview follows:

LEGISLATION

The British North America Act delegates the responsibility and authority for the administration of the public school systems to the provincial legislatures. The provincial legislatures in exercising this authority create a body to centrally administer the school systems within the province. The duties and responsibilities of this administrative body are embodied in the Department of Education Act. The legislature defines the rights and responsibilities of teachers in the Public Schools Act. The Department of Education creates school boards to administer the school system locally. Boards thus created have the authority to promulgate regulations governing the conduct of teachers, and these regulations if valid have the power of law. The Public Schools Act covers such matters as:

1. Rights, privileges, duties and responsibilities of teachers.
2. Provision for certification.
3. Conditions of employment.
4. Bases for suspension and dismissal.

egislation - continued

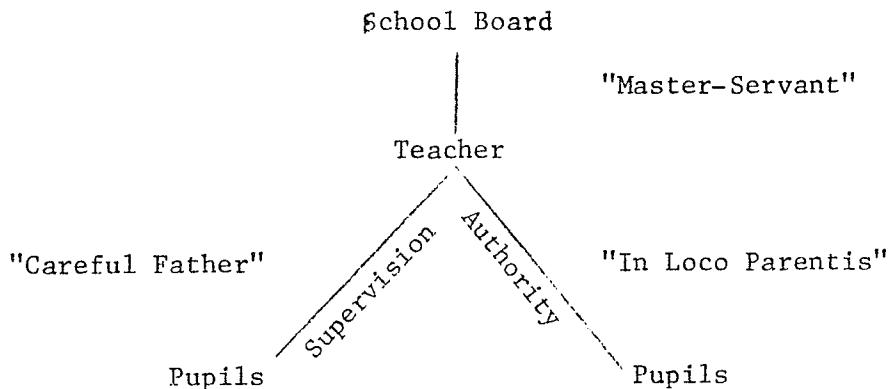
x. Section 265 states:

Every teacher shall

- a) teach diligently and faithfully all the courses prescribed or otherwise authorized for the school, and according to the terms of his agreement with the school district and according to this Act and the regulations;
- b) keep the school register in the form and manner prescribed therein;
- c) maintain proper order and discipline in the school according to regulations.

COMMON LAW

The legal status of the teacher is affected by three common law relationships, "master-servant", "in loco parentis", and "careful father". Schematically:



The relationship of "Master-Servant" exists between the teacher and the school board by whom he is employed. The nature of the relationship implies that school boards are responsible in damages for the tort of their servants acting within the scope of their authority" (Bargen, 196, p.139). The "Careful Father" relationship dictates the standard of care the teacher must use in supervising his pupils. Improper care may lead to liability if negligence is evident.

In loco parentis" implies that the teacher, acting within the scope of his authority, stands in the place of a parent with respect to authority over his pupils. Corpus Juris (Vol. 56, Secs. 1088, 1100) explains the nature of the authority embodied in "in loco parentis" thus:

As a general rule a school teacher, to a limited extent at least, stands "in loco parentis" to pupils under his charge, and may exercise such powers of control, restraint, and correction over them as may be reasonably necessary to enable him properly to perform his duties as teacher and accomplish the purposes of

Common Law - continued

education, subject to such limitations and prohibitions as may be defined by legislative enactment.....If nothing unreasonable is demanded (by the teacher) he has the right to direct how and when each pupil shall attend to his appropriate duties, and the manner in which a pupil shall demean himself.

IMPLICATIONS FOR THE STUDENT TEACHER *

The implications of "careful father" and "in loco parentis" for the student and cooperating teacher is that in the absence of a legal status of the student teacher it is reasonable to assume that responsibility for the care, supervision, and conduct of the pupils rests solely with the cooperating teacher. The absence of reasonable care by the cooperating teacher may lead to circumstances in which the cooperating teacher is held liable. In the absence of legislation and precedent one can only speculate as to the legal action which may ensue as the result of an accident to a pupil occurring while the student teacher is alone in the classroom. One may argue that the existence of the master-servant relationship mitigates the liability of the cooperating teacher in tort action since the presence of a student teacher in his classroom is authorized by the school board. The Public Schools Act states "every teacher shall maintain proper order and discipline in the school according to regulations". Failure to do so is a breach of duty and may result in legal action. The question is whether a student teacher is by definition a teacher. The Public Schools Act reads:

"teacher" means a person who holds a valid and subsisting teacher's certificate or a limited teaching permit issued under the Education Department Act, or who is authorized by the Minister to teach in a school.

The Act also reads:

The board of trustees of a city, town, or village school shall allow students enrolled in the Manitoba Teachers' College or any other teacher training course conducted to prepare persons to be certified under The Education Department Act and approved by the Minister to attend any classroom of any school in the district at any time when it is in session, for the purpose of observation and practice teaching.

The Education Department Act reads:

The Minister may issue teacher's certificates of such grades or classes, and in such form, as he prescribes.....

Also

The Minister may grant to any person to whom a teacher's certificate has not been issued a limited teaching permit, in which the Minister shall name the school to which the permit applies and state the period during which the permit is valid.

* The writer acknowledges H. E. May for helpful advice in preparing this section.

Implications For The Student Teacher - continued

Since the Minister has not issued a limited teaching permit to student teachers it follows that the student teacher is not a teacher by legal definition, therefore has not the same legal status as the cooperating teacher. This is a matter of concern to cooperating teachers who alone are responsible for the supervision, care and conduct of their pupils.

Despite the fact that a legal status for the student teacher is not present, the concept of "prudence" is. Society has a concept of what a teacher does and how he acts. Should the student teacher act outside this norm the mere fact of non-certification does not excuse him from responsibility for the careful supervision of children. He must act as a "reasonably prudent" man would act under the same circumstances. Failure to act in such fashion may be interpreted as negligence..

In conclusion the student teacher does not have the protection of the law accorded the certified teacher with respect to care and supervision of pupils (e.g. "Master-Servant"). He has not the legal authority to assume fully all the duties of the cooperating teacher. Consideration of this somewhat precarious position should be held in mind by principals, cooperating teachers, and student teachers.

The Manitoba Teachers' Society

CODE OF PROFESSIONAL PRACTICE

1. A teacher's first responsibility is to the pupils in his charge.
2. A teacher regards as confidential and does not divulge, other than through official channels, any information of a personal or domestic nature concerning either pupils or their homes.
3. A teacher keeps his teaching as objective as possible in discussing with his class controversial matters whether political, religious or racial.
4. A teacher makes a constant effort to improve himself professionally.
5. A teacher honors an agreement, written or verbal, with a division or a district board.
6. A teacher does not actively oppose the presentation to higher authority of matters duly agreed upon by his fellow teachers, except by formal minority report.
7. A teacher reports through proper channels all matters harmful to the welfare of the school. Therefore, he does not by-pass immediate authority to reach higher authority without first exhausting the ordinary channels of communication.
8. A teacher avoids unfavorable criticism of an associate. When such criticism is necessary, it is made in confidence to the proper officials and only after the teacher concerned has been informed.
9. A teacher regards it his right and duty to examine the conduct of all Society business and within the Society to make such criticism as the facts appear to warrant.
10. A teacher or group of teachers does not make unauthorized individual representations to the Society, to a board of school trustees, to a government or any of its departments, or to any other body, concerning matters that should be dealt with by the local or division association.
11. A local association or division association does not take independent action on matters requiring the authorization of the Society.
12. A teacher does not apply for a specific position that is not yet vacant.
13. A teacher adheres to collective agreements negotiated by his professional organization. Where no collective agreement exists, a teacher does not underbid to obtain a position.

EVALUATION

INTRODUCTION

The major difficulty encountered in analyzing a teaching performance for the purpose of evaluation is the fact that the evaluator is confronted by a host of variables that blur his vision. To simplify the matter of performance analysis educators frequently construct conceptual frameworks in an attempt to assist them in their analysis. Such conceptual frameworks, called models are intended to simulate as closely as possible the process of teaching. This model is constructed by systematically observing as many dimensions of the teaching performance as possible. From data gathered in observation certain hypotheses may be formulated. On these hypotheses a model is based. The purpose for constructing such a model is to reduce the countless number of intricacies of the teaching performance to a manageable size by factoring most variables so as to inspect two or three at one time. The model as a system of variables should be so constructed as to permit adjustments to be made as new data is received. To use an analogy, consider a road map of Manitoba. This road map is a simulation of part of the real world. Over time the features of the real world may change as in the case of road construction. Such a change requires a corresponding alteration to the model (roadmap) if it is to adequately represent reality. A model of the instructional process should be sufficiently broad in scope as to permit generalization over many cases. For instance, no two teaching performances are identical but through application of an accepted model may be analyzed in parallel fashion.

The model presented here is based on the hypothesis that the total teaching act is comprised of a finite set of learned behaviours and further that these behaviours can be identified, isolated, and practiced. Based on this hypothesis, evaluation, in the behaviouristic sense, refers to the assigning of a value to these behaviours by supervisory personnel.

With respect to student teaching the purpose of evaluation is two fold:

1. To upgrade by giving the student teacher an awareness of his strengths and weaknesses.
2. To serve as a predictor of the future success of the student teacher.

The first purpose is the diagnostic or teaching dimension of evaluation. In behavioural terms it involves the isolation of particular behaviours and the assessment of the relative contribution of each behaviour to the total performance. The emphasis here is on growth. The definition of the teaching behaviours should be sufficiently precise to enable the student teacher to improve in a definite area, and to avoid non-productive, global generalizations such as "warmth", "drive", "discipline", "personality", "interest", "rapport", "liberality", etc. The second purpose, that of quantification, implies total performance rating on some discrete scale (A, B, C+, C, D, F) at some point in time.

One feature desired in any rationale of evaluation is that it be conceived in such a manner as to permit the student teacher to profit from evaluation. If this was not a desirable feature it would be reasonable to place the student

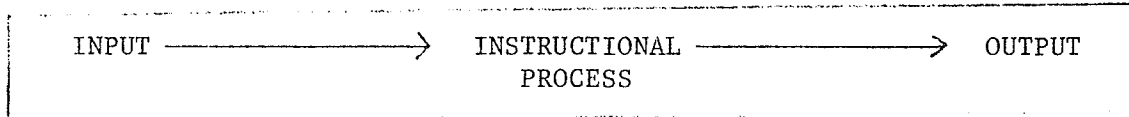
INTRODUCTION - continued

in a classroom once at the end of the session for purposes of giving a "critic lesson", on the basis of which he would pass or fail. There must be some constructive and meaningful way of answering such questions as, "How am I doing?" "Where did I go wrong?" It is not sufficient for the supervisor to respond in such glib phrases as, "You fail to maintain discipline", or "you failed to motivate your pupils". Such responses may indicate an obvious effect but they do little to pinpoint cause and suggest cures. Certain behaviours cause undesirable effects. It is for this reason that we must recognize constituent behaviours of the teaching act and that by upgrading weak constituent behaviours will have the effect of upgrading the total performance.

The three basic behaviours utilized in the model presented here are PLANNING, PRESENTING, and REACTING. With respect to these behaviours the purpose of the model is to provide a frame of reference within which the three basic behaviours may be observed, analyzed, modified, and evaluated.

PREAMBLE TO THE MODEL

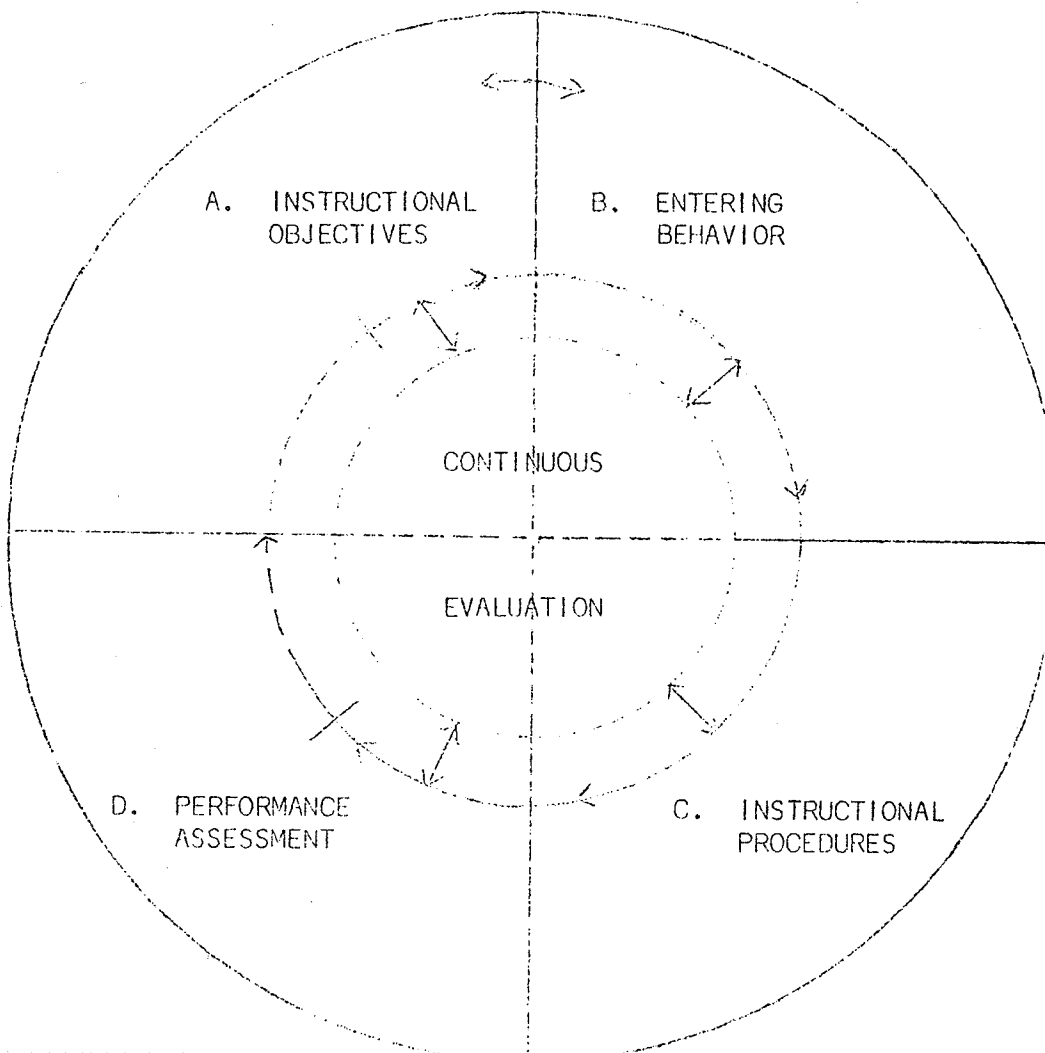
The model presented here is based in part upon Glaser's (1962) breakdown of the instructional process. It is essentially a systems model utilizing such motions as input, output, and a process whereby input is transformed into output. Schematically:



The instructional process consists of the set of behaviours utilized by the teacher in leading pupils from a state of initial behaviour to a state of terminal behaviour. The input is the pupil as he comes to instruction and the output is that same student, changed as a result of the instructional process. It was hypothesized that the three basic behaviours utilized by the teacher in the instructional process are - PLANNING, PRESENTING, and REACTING.

THE MODEL

What follows is a model of the instructional process proposed for student teacher evaluation together with a brief explanation of its terms.



INSTRUCTIONAL OBJECTIVES

An objective is "an intent communicated by statement describing a proposed change in a learner" (Mager, 1962, p.3). It involves specifying in behavioural terms the performance the learner should display subsequent to the lesson. (eg. To solve simultaneous equations, To identify types of metre in a sonnet etc.). The teacher in stating an objective identifies the behaviour he would like the learner to demonstrate. Such behaviour is called "terminal behaviour". Esbensen (1967) suggests that a well-written instructional objective should say three things:

1. What it is that a student who has mastered the objective will be able to do.
2. Under what conditions will he be able to do it.
3. To what extent will he be able to do it.

ENTERING BEHAVIOUR

Entering behaviour refers to the learner's level prior to instruction. It is analogous to what is sometimes called readiness. Specifically it involves consideration of such matters as:

- the pupil's level of learning (achievement)
- the pupil's development
- the pupil's motivational state
- the pupil's social and cultural background
- the background knowledge of the teacher
- the physical conditions of the classroom

INSTRUCTIONAL PROCEDURE

Instructional procedure refers to the procedures, method, and content the teacher uses to present a lesson to arrive at the desired terminal behaviour stated in the objective. Put another way, it is the procedure, method, and content used to achieve the desired terminal behaviour given specified entering behaviour. Four such methods may be identified:

- I. EXPOSITION (Telling)
- II. QUESTIONING
- III. DEMONSTRATION
- IV. DISCUSSION

A brief explanation of each follows:

I. EXPOSITION

Exposition is what most people call teaching. It is strictly verbal behaviour on the part of the teacher. In its extreme form (no emphases) it is called lecturing. The main purpose of exposition is to provide the lesson with direction and content. For example, too little exposition may cause confusion on the part of the student as to the purpose or relevance of the lesson. Too much on the other hand, may result in pupil boredom which may lead to class disruptions. Three identifiable types of exposition are:

- 1) exposition by logical development
- 2) exposition by example
- 3) exposition by comparison and contrast.

II. QUESTIONING

Questioning represents direct influence by the teacher but to a lesser degree than exposition. Questions are teacher initiated and responded to by individual students. There are four basic types of questions:

- 1. Cognitive questions requiring recall of material.
- 2. Convergent questions requiring analytical thought. Such questions serve to sort out data received from responses to cognitive questions.
- 3. Evaluative questions requiring judgments or the making of choices.
- 4. Divergent questions calling for creative and imaginative answers.

Ideally, developmental questioning is the progression through the above sequence. The teacher questions to acquire a bank of facts, questions to classify these facts, and questions to invoke generalizations based on these facts. As one Professor states it, "developmental questioning is the process of inducing inductive thought".

III. DEMONSTRATION

Demonstration may serve several purposes:

- 1) to illustrate a point
- 2) to solve a problem
- 3) to help solve a problem
- 4) to serve as a climax
- 5) to act as a review

Demonstrations are usually teacher presentations of a prepared situation. The outcome is generally known (unlike an experiment). With respect to INSTRUCTIONAL PROCEDURE a demonstration is usually a prologue to some other method of communication. For example a demonstration in science may lead to questioning or a discussion. Demonstrations call for strong VISUAL and VOCAL emphasis.

IV. DISCUSSION

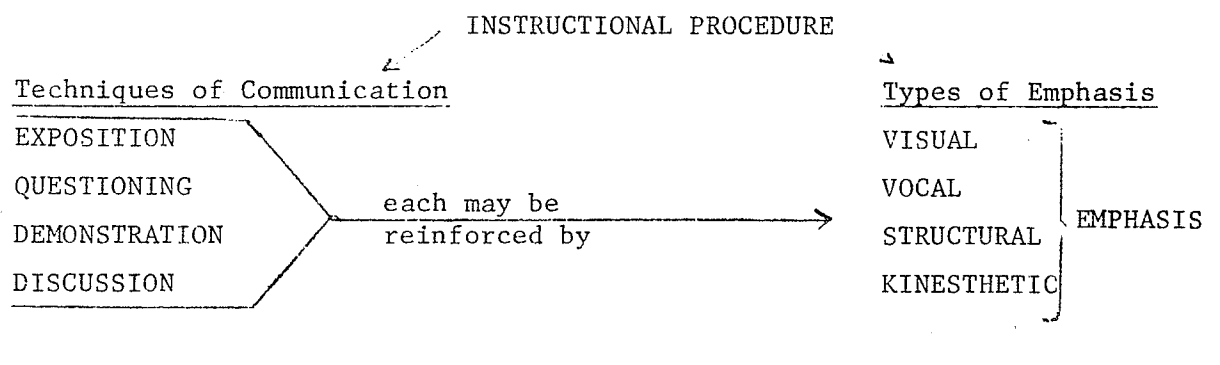
A discussion is the method of PRESENTING, embodying the least direct influence on the part of the teacher. Great attention must be paid to the entering behaviour of students for discussions serve little purpose if used prior to sufficient factual knowledge.

The four techniques of communication (EXPOSITION, QUESTIONING, DEMONSTRATION, and DISCUSSION) may be reinforced through four emphases, the VISUAL, the VOCAL, the KINESTHETIC, and the STRUCTURAL. A brief explanation of each emphasis follows:

- VISUAL EMPHASIS - refers to the use of the chalkboard, overhead projector, maps, charts, slides, films, etc.
- VOCAL EMPHASIS - refers to the varied use of pitch, tone, and tempo.
- KINESTHETIC EMPHASIS - refers to stance, movement, gesture, facial expression, etc.
- STRUCTURAL EMPHASIS - refers to the appropriateness of the activity to a particular stage of the instructional process.

SUB-MODEL

Nested within the instructional procedure segment of the model lies the communication sub-model. This sub-model provides a frame of reference for evaluating the PRESENTING behaviour of the teacher.



CONTINUOUS EVALUATION

The process of continuous evaluation is carried out by the teacher on two fronts. On one front the teacher evaluates, simultaneously to the presentation, the extent to which the pupils are acquiring the desired terminal behaviour. On the second front the teacher self-evaluates his performance. Clues to success on the first front are manifested through facial expressions, nature of pupil responses, pupil conduct, and degree of pupil cooperation. Continuous evaluation on the second front is analogous to a homing device, indicating to the teacher whether he is on course or not.

FINAL ASSESSMENT (Performance Assessment)

A complete instructional process should include proof of how well the pupils are acquiring the desired terminal behaviour, stated in the objective. In addition to the informal process of continuous evaluation, some kind of formal evaluation is necessary. The formal procedure used in the final assessment depends upon the type of behaviour being assessed. For example, it is generally agreed upon that there are three types of instructional objectives:

- a) knowledge and understanding
- b) skills and competencies
- c) attitudes and appreciations.

For purposes of final assessment each of these objectives may be reduced to their behavioural correlates which may be observed (measured) directly. For example:

Objective

Some Behavioural Correlates

- | | |
|--------------------------------|--|
| a) knowledge and understanding | define, cite, identify, describe,
generalize, explain, categorize, compare. |
| b) skills and competencies | report orally, compute, demonstrate,
weigh, graph, write, speak, etc. |
| c) attitudes and appreciations | discuss, debate, etc. |

IMPLICATIONS OF THE MODEL FOR SUPERVISORY PERSONNEL

It was postulated above that the teaching act consisted of a set of learned behaviours. Those behaviours were PLANNING, PRESENTING, and REACTING. It now remains to elaborate on the relevance of the model to these behaviours. Evaluation, as stated earlier is the assigning of a value to these behaviours, consequently, it is reasonable to assume that some basis be used in evaluating these behaviours.

PLANNING

What is involved in planning? How are supervisory personnel to judge evidence of planning? Planning involves the statement of an intention (INSTRUCTIONAL OBJECTIVE). These instructional objective(s) should relate to what has happened to the student previously (ENTERING BEHAVIOUR). For example, is it not reasonable to plan a discussion to identify the causes of the American revolution if the pupils have no prior knowledge of conditions in pre-revolution America? Planning involves a decision, based on desired terminal behaviour as to what instructional procedure (EXPOSITION, QUESTIONING, DEMONSTRATION, DISCUSSION) to use. For example, if the instructional objective is to have the student identify the moving parts of an internal combustion engine, what is the best way of achieving this? Planning involves a decision as to how to assess the students terminal behaviour (FINAL ASSESSMENT).

PRESENTING

Having decided what to do and how to go about doing it, the teacher is ready to proceed with the actual teaching. He must communicate what he knows to the learner in such fashion to make sense to the learner. The teacher in effect, has chosen the most appropriate techniques to cause the pupil to interact with the subject matter. The role of the supervisor becomes that of evaluating the presentation rather than judging the choice of presentation. The techniques should be isolated and commented upon with respect to type and amount of reinforcement provided, and evidence of developmental questioning. This serves to pinpoint inadequacies and weak points evident in the presentation. Diagnosis in this manner allows the student teacher to concentrate on specific areas needing improvement. Items such as quality of voice, motivation and maintenance of class interest, handling of class response, extent and nature of use of visual aids, and nature and relevance of assignments may be included here.

It is hoped that comments be made in the context of the techniques of communication and the emphasis utilized to reinforce these techniques. The following matrix may provide some direction.

	DEMONSTRATION	EXPOSITION	QUESTIONS	DISCUSSION
Structure	Visual Emphasis Vocal Emphasis Kinesthetic Emphasis Structural Emphasis	Visual Emphasis Vocal Emphasis Kinesthetic Emphasis Structural Emphasis	Visual Emphasis Vocal Emphasis Kinesthetic Emphasis Structural Emphasis	Visual Emphasis Vocal Emphasis Kinesthetic Emphasis Structural Emphasis
Introduction				
Body				
Conclusion				
Assignment				

REACTING

Reacting is the process of self-evaluation. Despite the efforts of the cooperating teacher and the Faculty supervisor, the student teacher is probably his own best critic. The process of self-evaluation allows the student teacher to crystallize his individual beliefs as to what constitutes effective teaching and to discover new and useful teaching techniques. Some aids to self-evaluation might include:

1. A checklist containing weaknesses identified by the cooperating teacher.
2. A tape recorder to self-evaluate quality of voice, classroom atmosphere, etc.
3. Anecdotal reports of critical incidents which may be useful as a frame of reference for conferences with the cooperating teacher and Faculty supervisor.
4. A Video Tape Recording unit to record and play back a teaching performance. Perhaps the teacher behaviour techniques matrix in the model may be of use as a checklist here.

SUMMARY

If it were possible to reduce effective teaching to a list of specific competencies acceptable in all situations the matter of evaluation would be a simple task indeed. The supervisor need only use a checklist of the competencies, recording the presence or absence of such competencies. Such, however is not the case. The absence of a checklist does not imply that evaluation be completely subjective, as is often the interpretation. Models may be constructed as a step toward objectivity. This manual has presented one such model.

In general terms, the instructional process may be conceived as a matter of drawing together the right choice of teaching acts at the appropriate time to achieve an important effect upon pupils. With this view in mind, an analysis of teaching precipitates a structure of interrelated behaviours constituting the instructional process. The identifiable behaviours were, PLANNING, PRESENTING, AND REACTING. These basic behaviours nested within the model of the instructional process were presented as being observable, analyzable, differentiable, and modifiable through application of the model. Nested within the basic model a communication sub-model was presented, listing four identifiable communication behaviours, EXPOSITION, QUESTIONING, DEMONSTRATION, and DISCUSSION, along with their four emphases behaviours, VISUAL EMPHASIS, VOCAL EMPHASIS, STRUCTURAL EMPHASIS, and KINESTHETIC EMPHASIS. It is intended that the model and sub-model be used as an aid to objective evaluation.

SYSTEM FOR REPORTING FINAL GRADES

To introduce a standard system of reporting final grades requires that a distinction be made between informal and formal evaluation. Informal evaluation is characterized by dependence upon casual observation, implicit goals, and subjective treatment. Formal evaluation is characterized by its dependence on checklists and structured visitation by supervisors (Stakes, 1967). The difficulty encountered in assigning a grade to a teaching performance lies in the fact that neither type of evaluation can justifiably be applied. On the one hand casual observation and subjectivity are discouraged since they are antithetical to the role of the cooperating teacher and the goal of objectivity respectively. The use of checklists on the other hand is unreasonable for the simple reason that no checklist of teacher competencies is yet available. The only viable alternative appears to be the choosing of an acceptable middle ground. This manual has attempted to embrace that alternative. The model has delimited subjectivity and approached the checklist format by presenting a universal frame of reference upon which to base evaluation.

The following grade definitions suggest that the system used for reporting final grades reflect the criteria established in the model. It is hoped that the definitions remove some of the guess work for the supervisor enabling him to pinpoint specific behaviors which may be changed, thus giving the student teacher some definite focal points for improvement.

<u>Letter Grade</u>	<u>Grade Points</u>	<u>Description</u>
A	4.0	Excellent
B	3.0	Superior
C+	2.5	Good
C	2.0	Satisfactory
D	1.0	Marginal
F	0.0	Failure

EXPLANATION OF GRADES

Excellent performance on all evaluative criteria established in the model:

e.g. An artistic mix showing full awareness of the interrelationships of entering behaviour, instructional objectives, instructional procedure and performance assessment and exhibiting a high degree of skill in altering procedures through continuous assessment. It goes beyond the excellent performance of the basic skills of exposition, questioning, demonstrating, and discussing.

Superior performance on most of the evaluative criteria established in the model:

e.g. Evidence of careful planning taking into account entering behaviour, instructional objectives, instructional procedures, and final assessment in addition to the skillful use of communication technique(s) with a variety of emphases.

C+ Good performance on most of the evaluative criteria established in the model:

- e.g. Evidence of careful planning taking into account entering behaviour, instructional objectives, instructional procedures and final assessment in addition to the skillful use of communication technique(s) reinforced by a variety of emphases.

The performance should be such that would indicate a weakness in at least one of PLANNING, PRESENTING and REACTING in terms of the established criteria.

C Satisfactory performance on most of the evaluative criteria established in the model:

- e.g. Evidence of satisfactory planning taking into account entering behaviour, instructional objectives, instructional procedure, and final assessment in addition to moderately skillful use of communication technique(s) reinforced through moderate use of emphases.

The performance should be such that would indicate overt weaknesses in PLANNING, PRESENTING, and REACTING.

Marginal performance on most of the evaluative criteria established in the model.

- e.g. The performance should be such as would show lack of skill in performing basic elements, together with inconsistency in making a satisfactory fusion of elements for a specific purpose.

Unsatisfactory performance on most or all of the evaluative criteria established in the model:

- e.g. The performance should be such that would not be indicative of future success in teaching.

APPENDIX 2

NOTES ON THE SUPERVISORY PLANS

NOTES ON SUPERVISORY PLAN B:

The basic outline of this plan is as follows:

1. The preobservation conference(not more than 15 minutes).
2. Observation
3. Analysis
4. Strategy
5. Conference.

Each of these sections will be described in terms of rationale and procedure after a brief introduction to the nature of the supervisor utilizing the plan.

An 'idealized' supervisor can be described in the following passage from Goldhammer:"...He must formulate his ideas and statements, he hears what Teacher is saying and must understand Teacher's intended meanings, he must read Teacher's meaning both at face value and in symbolic terms, he must detect signs of anxiety or any stressful internal condition that is active enough to create interference with intended outcomes, he must develop responses aimed appropriately at both overt and disguised expressions of ideas and feelings, he must delimit his range of behavior to keep it consistent with long range supervisory goals as well as relevant to the immediate problems of supervision, he must monitor his own feelings and impulses and motives in order to keep

the work aimed at Teacher's welfare rather than at his own, he must make examined, yet instantaneous decisions about what to broach and what not to, what to give, what to hold, what to reinforce, what to set in special relief by selective emphasis and so on." Both Teacher and Supervisor should be utilized for their appraisal, perceptions and judgements and both should develop an autonomous, cooperative position.

1. THE PRE OBSERVATION CONFERENCE

Before this conference, arrange with Teacher(T) a time to meet, to insure that the conference occurs.

Establish effective two-way communication(rapport) to insure that you will understand one another.

Determine what T's plans for the lesson are-

- His performance objectives such as: if T wants to work on his questioning skills, wants to involve all of the students in discussion, wants to practice exposition.
- His teaching objectives: what he wants his pupils to get from the lesson, i.e. behavioral objectives.

Rehearse briefly and/or mentally the lesson to find any problems that might arise or to increase the readiness on the part of the Supervisor(S) or T for any areas in the lesson that particular attention should be paid.

Modify plans(cooperatively) should the situation arise; if the change is necessary and the change will not undermine the lesson.

Determine how supervision is to operate and for what goals; most likely to be based upon the lesson objectives.

PRINCIPLES OF METHOD OF PRE OBSERVATION CONFERENCE

1. Do not raise(offer criticism, objections and the like) that are likely to undermine the T's strategy for the teaching about to be undertaken.
2. Avoid using novelties except for small maneagable refinements that T can easily incorporate into his plan.
3. Deal in T's terms, in his conceptual framework rather than that of S or in external, theoretical frames of reference. In other words, if 'operant conditioning' is not in the framework that T has conceptualized his lesson, it should not be examined in those terms.
4. Avoid supervisory techniques that have proved unsettling to T in the past or might predictably be disquieting at the moment. For example, if T has formerly become anxious when S employed inductive techniques to pursue some line of inquiry or if it seemed that T was uncomfortable when S followed a pattern of interrogation or if T tends to be upset when S uses comparison(between T and other teachers or between S and T)to demonstrate

his point, then such techniques should be deliberately avoided.

5. Take special effort to insure that communication is clear, that T and S understand each others' meanings precisely.
6. Deliberately control your impulses to direct. Give T every opportunity to move in his own directions, to set his own issues, to organize procedure to the extent that he is comfortable in doing so; unless he seems to be plunging into deliberations that are likely to work against him.
7. Recognize the possibilities for incidental learning to occur.

II. OBSERVATION:

Make written notes to record as closely as possible that events which occurred during the lesson; including pertinent non-verbal events. The notes will allow for the valid reconstruction of the lesson later, therefore the notes should record the events objectively-

If you notice several pupils passing notes, talking or lookin out the window while the T is lecturing; record it as such not that the pupils are bored or some other interpretation.

If comments are to be written, separate them from the observational data. Write notes in duplicate so that T may have a copy if desired.

III. ANALYSIS:

Tell T that you are going to analyse the data in relation to the objectives determined in the pre-conference.

Ask T if he would do the same and offer him access to the data you have.

Determine a time for the conference so that it may take place as soon as possible.

The conference is between the S and the T; should T of a cooperating teacher request that the cooperating teacher be present in the conference, this should be allowed, but do not request this yourself.

Patterns of teacher behavior are to be sought out. As patterns, the behavior must be repetitious although this criterion may be hard to detect in some instances because the period of occurrence is either irregular and/or of long duration. The behavior should have significance to the teaching performance.

Try to read the substance of the data, such as whether T tended to 'push' his values, continued promises to cover 'that topic' later, inconsistent use of terminology and private conversations.

To some extent attempt to view the data through the eyes of the pupils and estimate the effect of the behavior upon them. Be cautious not to overdo this because it can lead to erroneous assumptions.

If possible arrange the patterns in hierarchal order such that those you feel are most important are dealt with first; to insure that they are dealt with in the conference. The basis for importance should be prominence, significance and consequence.

PRINCIPLES OF METHOD FOR ANALYSIS:

1. Scan for easily seen patterns.
2. Attempt to determine signifivance of the teaching processes by reference to T goals and to pupil demonstrated or inferred experiences.
3. Patterns are sought out becuae patterns will tend to have more effect upon pupil's learning than occassional isolated elements of teaching.

IV. STRATEGY:

Select the issues that you want to deal with in the conference. These are issues to be selected on the basis of the objectives established in the pre-observation conference and the data collected during the observation.

PRINCIPLES OF METHOD OF STRATEGY:

1. The issue should have high probability of affecting the learning of the pupils. The issue should not be of a superficial nature. To be considered behavior should be frequent and abundant in the data, exist in

demonstratable effects upon the pupils, have theoretical importance to the lesson, or have known or predictable significance in T's already existing frame of reference.

2. The number of issues should be few so as to give the conference something more concrete to handle, making it more workable and meaningful.
3. The issues should be intellectually and emotionally accessible for both S and T. A balance must be struck between the extremes of being too concerned for the mental fragility of T and of being unconcious of possible impacts of some issues. Both extremes can lead to rejection of the supervision by the T for being either irrelevant or too threatening.

V. CONFERENCE:

Both S and T present their analysis of the lesson with evidence to support any opinions offered; each is free to challenge the other's interpretation(s).

The main direction of the conference as determined in the strategy should be towards determination of whether the objectives stated in the pre-observation conference had been achieved and to what extent. What changes could be made to improve the teaching either in performance or in objectives.

All discussion should be based upon the events as they occurred in the classroom.

PRINCIPLES OF METHOD FOR THE CONFERENCE:

1. This stage should not be a technical playing out of the S and T roles but rather a discussion based upon all preceding stages.
2. All stages led to the conference and should serve as a basis for it.
3. The conference is to be used for the improvement of teaching, evaluation of the teaching performance is to be used in the sense that it serves to establish the status of the performance and in this way is a basis for improvement.

NOTES ON SUPERVISION PLAN A

The basic outline of this plan is as follows:

1. Observation
2. Conference.

The role of the supervisor in this plan is one of evaluation; to observe the lesson, evaluate it and communicate this evaluation to the student teacher. The supervisor's estimation of various components of the lesson are to be stated to the student teacher. The evaluation is to be based upon the supervisor's own perception of the lesson, its purpose(s), and expected outcomes. The supervisor then is basically an observer using his own frame of references to evaluate his observations. The conference serves as a means of telling the student teacher of the evaluation of his lesson.

I. OBSERVATION:

Determine the topic of the lesson from the student teacher.

Make written notes throughout the lesson recording what you believe is pertinent information and features of the lesson. If possible include your assesement of the events of the lesson as they occur. The events that record

should have importance to the success of the lesson either directly or indirectly.

As the events occur try to evaluate their importance to the teaching performance.

Attempt to assess the lesson as you observe it in your own frame of reference and that of the lesson topic.

II. CONFERENCE:

The conference is to occur as soon as possible after the teaching performance is over.

The conference should consist of the supervisor and the student teacher only.

The supervisor should control the conference closely and direct the topics to be considered.

The supervisor should review the lesson as he saw it, commenting on the events as an evaluator. As he reviews a particular event he should value it as good, bad, effective, ineffective, or whatever other value terms he might place on the event:

If the student teacher began the lesson with a brief demonstration related to the topic, the supervisor could comment that this was an effective way of getting the attention of the pupils.

if the student teacher began questioning the

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pupils and seemed to diverge in his line of questionning the supervisor could comment that this was a poor method of conducting a question session.

The supervisor should not encourage the student teacher to participate in discussion or questionning in the conference but should questions or points of discussion be brought up by the student teacher they should be dealt with to the best of the supervisor's ability.

After the lesson review in this conference by the supervisor, a general overall assesement of the lesson and the student teacher's performance should be stated by the supervisor and the conference ended.

For the first three weeks of supervision during which this study is in effect no marks are to be awarded the student teachers.

APPENDIX 3

THE STUDENT TEACHING REPORT
'THE GREEN SHEET'

THE UNIVERSITY OF MANITOBA
FACULTY OF EDUCATION

In the space below, the supervising teacher is asked to evaluate and to suggest ways of improving the performance of the student teacher, bearing in mind the following:
Personal Qualities: vitality and enthusiasm; sense of responsibility; relations with staff and pupils.
Teaching Performance: voice quality; English usage; quality of developmental questioning; motivation and maintenance of class interest; handling of class response; drill and review; extent and nature of use of visual aids; nature and relevance of assignments; adequacy of lesson preparation; general class control.

Session No. _____

Date _____

Student _____

Supervising Teacher _____

School _____

Grade _____

Subject _____

Topic _____

General Assessment
(please check)

- EXCELLENT ☐
- SUPERIOR ☐
- GOOD ☐
- SATISFACTORY ☐
- MARGINAL ☐
- FAILURE ☐

SPECIAL REMARKS

Strengths

Weaknesses

APPENDIX 4
STUDENT TEACHING QUESTIONNAIRE

YOUR ANSWERS TO THE FOLLOWING ITEMS ARE TO BE BASED UPON YOUR
PRACTICE TEACHING SESSION LAST FALL

1. How far in advance did you know of the visitation by the faculty supervisor?
 - a) one day
 - b) one week
 - c) other _____
2. Did the faculty supervisor meet with you before observing you teach?
 - a) yes
 - b) no
 - c) other _____
3. If the faculty supervisor did meet with you before observing you teach:
 - i) did he(she) determine what your objectives for the lesson were?
 - a) yes
 - b) no
 - c) other _____
 - ii) were you able to determine the supervisor's intentions or objectives for the visitation(i.e. why was he there?)
 - a) yes
 - b) no
 - c) other _____
 - iii) did the supervisor state what he would be looking for in the observation?
 - a) yes
 - b) no
 - c) other _____
4. During the lesson, how long was the supervisor in the classroom observing you?
 - a) the whole class
 - b) $\frac{1}{2}$ the class
 - c) other _____
5. After the lesson did you and the supervisor meet to talk about the lesson?(a post-observational conference)
 - a) yes
 - b) no
 - c) other _____

6. Was the post-observational conference pre-arranged?

- a) yes
- b) no
- c) other _____

7. Assuming that the supervisor collected some form of data from the observation(such as notes, audio tape), was this data made available to you?

- a) yes
- b) no
- c) other _____

8. If a post-observational meeting was held:

i) did the meeting only serve to give the supervisor a chance to tell you his evaluation of your teaching performance?

- a) yes
- b) no
- c) other _____

ii) did you feel that you were encouraged to participate in discussion in this meeting?

- a) yes
- b) no
- c) other _____

iii) were you and the supervisor the only people present at this meeting?

- a) yes
- b) no
- c) other _____

9. Did you feel that the main function of faculty supervision was to assign a grade to your teaching performance?

- a) yes
- b) no
- c) other _____

APPENDIX 5

DIMENSIONS OF TEACHER BELIEF TEST
(DTB)

This questionnaire is designed to sample your feelings about many practices and attitudes relative to the field of education. You are to assume that a new school system is to be built to your specifications, but before this can be done you must state your educational values as clearly as possible by indicating the degree of support you would give to each of the statements below.

Remember - clear statement of your values is important if you are to give useful guidance to those implementing your ideas.

How to fill out the questionnaire.

Indicate your reaction to each statement in the questionnaire by selecting the response category which best describes your feelings about it, and then mark the appropriate number on the I.B.M. sheet supplied.

Example: By marking alternative #1 for a given statement, you would indicate your strong resistance to it, and by marking alternative #5 you would indicate your strong support .

RESPONSE CATEGORIES.

- 1. 0 I would STRONGLY RESIST this statement.
- 2. 1 I would RESIST this statement.
- 3. 2 UNDECIDED.
- 4. 3 I would SUPPORT this statement.
- 5. 4 I would STRONGLY SUPPORT this statement.

1. Teaching of specific skills and factual subject-matter is the most important function of the school.
2. The main reason for the curriculum guide is to provide the teacher with definite information regarding the material to be covered in the course.
3. The attitudes learned by a student often constitute the most important result of a lesson or unit.
4. A properly motivated group of mature students might learn more in a semester's time if they were left entirely to their own resources than if they had a teacher to guide them.

5. Pupils must be kept busy or they soon get into trouble.
6. His effectiveness is seriously impaired when the teacher permits himself to become emotionally involved in the personal problems of pupils.
7. In the interest of good discipline pupils who repeatedly disrupt the class must be severely punished.
8. Pupils learn self direction by having opportunities to set their own goals for learning.
9. In planning their work teachers should rely heavily on the knowledge and skills pupils have acquired outside the classroom.
10. The curriculum consists of subject matter to be learned and skills to be acquired.
11. The essential function of junior high school courses lies in their preparing pupils for later courses.
12. Small group work uses to best advantage the contrasting personalities, skills, and interests pupils have.
13. Pupils frequently learn much more under their own initiative than they do under teacher direction.
14. Children need and should have more supervision and discipline than they usually get.
15. The effectiveness of teaching is enhanced when the teacher has the ability to see the world as each of his pupils sees it.
16. Proper control of a class is amply demonstrated when pupils work quietly while the teacher is out of the room.
17. Pupils respect teachers who stand firm on their convictions.
18. The pupil's knowledge is best developed when teachers interrelate facts and figures from many different subject fields.
19. The backbone of the school curriculum is subject matter; activities are useful mainly to facilitate the learning of subject matter.
20. Pupils learn library skills more readily by using their own devices in searching for materials of special interest than by a series of exercises designed to teach the logical steps in library procedure.
21. Teachers who like pupils will usually encourage pupil initiation and participation in planning lessons.
22. Across-the-school routine imposes a consistency in classroom procedure which tends to restrict important avenues for learning.

23. A well established classroom routine enhances the emotional stability of pupils.
24. Students who misbehave or do not learn are generally children who need more love.
25. Optimum learning takes place when the classroom setting is completely free of distractions.
26. The completion of any worthwhile task in education requires hard work on the part of pupils.
27. The deep interest which pupils sometimes develop in one subject can be valuable to them, but only if teachers succeed in broadening their perspectives across subject matter boundaries.
28. Pupil failure is averted when mastery of subject matter is the prime requisite for promotion.
29. The teacher assures optimum learning conditions by giving top priority to the social-emotional needs of pupils.
30. The effectiveness of the teacher depends entirely on the amount of personal interest he can invest in the progress of each pupil.
31. Pupils are motivated to do better work when they feel free to move around the room while the class is in session.
32. Pupils must see clearly that it is the teacher, not they, who has charge of classroom learning,
33. Children learn best in an atmosphere filled with love and emotional support.
34. Under ideal conditions pupils would view each teacher as a "specialist" in the subject taught.
35. Pupils gain more satisfaction from doing a difficult task well than any other achievement.
36. The most important thing a teacher can do to set the stage for learning is to discover the interests of students.
37. The over-all plan of education suffers when teachers depart substantially from the subject outline.
38. The development of social and emotional security for pupils is the most important function of the school.
39. Pupils master the essentials of a subject only when extensive plans are made for accommodating individual differences in pupils.

40. Nothing captures students' interest in school work as quickly as allowing them to wrestle with problems of their own choosing.
41. Children learn the necessary skills of group participation only when they are exposed to sequences of activity requiring increasingly difficult skills from kindergarten through grade twelve.
42. The teacher's ability to see the world as each of his students sees it is an absolute must if he is to have any success at all in teaching.
43. Pupils learn efficiently the essentials of a subject when every member of the class moves simultaneously through carefully planned lesson sequences.
44. Pupils never really understand a subject until they can relate what they have learned to the broader problems of the world.
45. The teacher must avoid strict adherence to the sequence provided by a textbook series.
46. Grading pupils separately on achievement and citizenship assures that teachers will insist on mastery of subject matter as well as good behavior.
47. The individuality of pupils is sustained when teachers make allowances in their grade reports for the varying interests pupils have.
48. A teacher can frequently "reach" a rebellious pupil by taking an intense personal interest in his welfare.
49. When given a choice of activity, pupils generally select what is best for them.
50. The effective teacher has complete control of the learning situation at all times.
51. Good rapport with pupils is maintained by the teacher who always finds time to help individuals with special problems.
52. The natural flow of events is enhanced by the teacher who manages to eliminate any disruptive pupil behavior.
53. Teachers must always be prepared to explain to pupils interrelationships among various elements of the overall curriculum.
54. An essential component of a good lesson is one of showing how it is related to other areas of knowledge.
55. Before pupils are encouraged to exercise independent thought they should be thoroughly grounded in the facts and knowledge about the subject.

56. Pupils gain a sense of belonging when the teacher encourages friendships among pupils in the room.
57. Nothing stimulates a pupil to apply himself more diligently than a warm, personal interest in his progress shown by the teacher.
58. Time to choose freely their own activity during the school day is a must for pupil morale.
59. The teacher who organizes the material and presents it to pupils in a forceful way gets the best results.
60. The use of sarcasm by the teacher can accomplish nothing but emotional harm for the pupil.
61. A good teacher will establish a routine and stick to it.
62. Teachers must set definite items aside to show pupils the relationships between their subject and the overall goal of education.
63. Learning is essentially a process of increasing one's store of information about various fields of knowledge.
64. Teachers increase their chances of directing the work into productive channels by having pupils participate in the planning.
65. Teachers who do not like pupils will usually decide on and plan lessons alone rather than use pupil participation.
66. Pupils learn best when permitted to set their own pace in doing the work.
67. Establishing the rules well in advance strengthens the teacher's hand in meeting the various problems that might arise.
68. Learning is enhanced when teachers praise generously the accomplishments of pupils.
69. The logical structure of subject matter is the most realistic guide to the organization of the work in the classroom.
70. Pupils gain better understanding of the subject if assignments are presented to them as a series of interrelated problems.
71. The structure of a field of knowledge is intrinsically interesting to pupils when it is clearly taught.
72. Group activity teaches children to think and plan together, independent of direct supervision by the teacher.
73. There is too great an emphasis on keeping order in the classroom.
74. A firm hand by the teacher promotes emotional security for pupils.

75. A teacher's effectiveness rests upon his ability to maintain proper "professional distance" between the pupils and himself.
76. The pupil's impression of the teacher's personality greatly influences what he learns.
77. Pupils respect teachers who expect them to work hard in school.
78. The basic function of education is fulfilled only when pupils are led to understand the general significance of the material they have learned.
79. In teaching it is essential to cover the material in the course of study.
80. The goals of education should be dictated by children's interests and needs as well as by the larger demands of society.
81. Children should be given more freedom in the classroom than they usually get.
82. Pupils do their best work when they know exactly what to expect from day to day.
83. Pupils are induced to greater motivation when the teacher remains somewhat aloof from the interpersonal affairs of the class.
84. Pupils learn to stay alert when they are expected to respond immediately to teacher demands.
85. Lessons presented in the form of problems to be solved are the best means of motivating pupils.
86. If curriculum plans are to be developed, they must go into detail on how course content can be integrated across subjects.

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