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JAY, JOYCE DEAN WILLIAMS

AN EXPLORATORY STUDY OF SELECTED GENERIC TEACHING SKILLS
AND INSERVICE EDUCATION AS PERCEIVED BY CLINICAL AND NON-
CLINICAL INSTRUCTORS IN SELECTED SECONDARY SCHOOLS IN
LANSING, MICHIGAN

Michigan State University

PH.D.

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AND NON-CLINICAL INSTRUCTORS IN SELECTED
SECONDARY SCHOOLS IN LANSING, MICHIGAN

by

Joyce Williams Jay

A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

College of Education

1981

ABSTRACT

AN EXPLORATORY STUDY OF SELECTED GENERIC TEACHING SKILLS AND INSERVICE EDUCATION AS PERCEIVED BY CLINICAL AND NON-CLINICAL INSTRUCTORS IN SELECTED SECONDARY SCHOOLS IN LANSING, MICHIGAN

by

Joyce Williams Jay

Purpose of the Study

The purpose of the study was to determine whether teachers receiving specialized preparation perceived the use of generic teaching skills differently from teachers who had not received such training.

Methodology

The population studied included a selected group of 128 teachers in three secondary schools in Lansing, Michigan. Teacher participants were divided into two groups: 45 teachers who received inservice training, and 83 teachers who did not receive inservice training. A sample of 24 teachers was observed with regard to their use of generic teaching skills. Four clinical and four non-clinical instructors were included.

Findings of the Study

Descriptive Analysis

The following conclusions have been drawn regarding the respondents: (1) the population included more male than female teachers; (2) the ages of the teachers were concentrated in the 36-45 age group and the 26-35 age group; (3) the academic degrees of most of

the teachers did not go beyond the master's level; (4) more teachers had 11-15 years of teaching experience; and (5) more teachers taught mathematics and language arts.

Primary Hypotheses

The following are findings regarding the primary hypotheses of the study: (1) inservice education offered by the Michigan State University and Lansing School District "POINTE" Program influenced the use of generic teaching skills of classroom teachers; (2) both groups were similar in their perception of the importance of the generic teaching skills to the teaching process; (3) there was significant agreement between teacher and observer ratings regarding the use of generic teaching skills in maintaining attending behavior; and (4) there was disagreement between instructor and observer ratings regarding the use of communication skills. Mean scores suggest that the observer ratings are more likely than instructor ratings to indicate that inservice training had a positive effect.

Secondary Hypotheses

The following are findings regarding the secondary hypotheses of the study: (1) the school in which the teachers taught did not make a significant difference in their use of generic teaching skills; and (2) all respondents perceived generic teaching skills as being important to the teaching process.

DEDICATION

To my mother, Eola,
and sister, Bernice Williams

"I no longer need your approval,
but I will forever need your love."

Alex Haley
Roots

ACKNOWLEDGMENTS

It is most gratifying and pleasing for the author to acknowledge those individuals who contributed to the success of this academic endeavor. However, it is difficult to express in words the tremendous encouragement and support which they provided from the beginning to the completion of this study.

Thanks to Dr. George Myers, Chairman of the doctoral guidance committee, who was academically and humanistically sincere in his assistance. Never a moment of discouragement, always positive and supportive.

Appreciation is extended to Dr. Van Johnson, whose support gave the whole process meaning and clarity; Dr. Roger Niemeyer, for his great attitude, understanding, patience and kindness; Dr. John Cragun, for his encouragement and helpful assistance; Dr. Robert Chamberlain, Deputy Superintendent of the Lansing School District, for his guidance in helping to direct the collection of data.

The writer extends her deep appreciation to the individuals in the Lansing School District for their cooperation in the planning process, and collection of data. A special thanks to Rob Young, Research Assistant, for sharing his expertise in the data analysis; Dr. Frank Throop, Principal of Everett High School, for his encouragement and advice; and the Student Teaching Cluster Consultants, for their cooperation and assistance in the collection of data and also

to the clinical and non-clinical instructors in the participating schools who devoted their time and effort by participating in the study.

The time and moment of truth has arrived. These individuals are special to this accomplishment and I cannot omit the opportunity to say thank you to my J.J. supporters: Dr. James E. Jay, husband; Jonathan Keith, son; and Joye Monique, daughter; who gave their love, inspiration, kindness, strength, support and meaning to pursue and complete this tremendous task.

Finally, to my mom, Eola Williams and oldest sister, Bernice, thank you for your unselfishness, love, encouragement and clarification of the value of education at a very early stage of development in my life.

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CHAPTER I

INTRODUCTION

The generic competencies, qualities and characteristics that a student possesses regarding potential effectiveness as a future teacher are usually based on data about the freshman available to the institution of higher education. According to Arnold and others, the data for entering freshmen include high school graduation, certification, student self-reports, college entrance tests and aptitude/personality tests.¹ The completeness of the information requested by the institution of higher learning in many cases is not adequate in describing entering freshmen. Many institutions maintain programs of personality, aptitude, vocational, attitude and interest testing at the point of entry. Although the relationship of the many types of tests used to measure the student's potential for teaching performance is well documented, few teacher education institutions have managed to justify their use to the public.

Howsam and others commented on the selection criteria traditionally used by institutions of higher learning and suggested that teacher education also has the responsibility of justifying

¹Daniel S. Arnold, et al., Quality Control in Teacher Education: Some Policy Issues (Washington D.C.: AACTE, 1977), pp. 17-27.

each student's admission by verifying each student's ability to succeed in the teaching profession.² The act of a student choosing to become a teacher does not confer the automatic right to become a teacher. Candidates must demonstrate the potential to become successful teachers at a number of specific points prior to actual professional entry. They must show that they possess the necessary skills, knowledge and values for successful professional practice.

In view of selection admission policies, most researchers on this particular topic or issue seem to agree that there are some selective systems of admission to the teacher profession for all institutions of higher learning preparing teachers at the preservice level. According to Brubacher, 95 percent of all institutions utilize selective admission policies, although the average list of all selective criteria being used is only six. Two observations made by Brubacher regarding the criteria now commonly being used and their application are: (1) college grades are used most frequently and least used of the top six criteria are those correlated with academic ability; (2) Most of the schools that were questioned refused admission to fewer than ten percent of the applicants for teacher preparation.³

Cruickshank suggested that institutions, regarding initial admission to teacher preparation programs at the preservice level,

²R.B. Howsam, et al., Educating a Profession: Report of the Bicentennial Commission on Education for the Profession of Teaching (Washington, D.C.: AACTE, 1976), pp. 93-94.

³H.A. Brubacher and D.C. Patton, "Selection and Retention in Teacher Education: Does It Exist?" Teacher Education 10 (1975): 2-7.

are largely restricted to those pre-existing characteristics of teachers associated with individual personality, rather than process variables which teacher preparation programs concentrate on producing.⁴ There would appear to be sufficient evidence to justify institutional design, implementation and evaluation of admission programs which include at least three variables: academic ability, character traits and attitudes, and personal interests related to major areas of study. This seems to suggest that teachers in preservice training are most likely to be successful if they are above average in academic ability and preparation in their teaching field.

There are other researchers who seem to support Cruickshank's position that teachers who demonstrate flexibility and emotional stability and who have favorable attitudes toward children are more likely to be successful in the profession. Hamacheck found that teachers who tend to be able to range across a continuum of styles, in contrast to less effective teachers who always use the same interaction style, are more successful teachers.⁵

Many researchers support the variables of personal interests and academic majors. These authors seem to agree that there are differences among students in various teacher education majors which influence future teachers' performance. Lien concluded that

⁴D.R. Cruickshank, "Synthesis of Selected Recent Research on Teacher Effects." Journal of Teacher Education 27 (1976): 57-60.

⁵D. Hamacheck, "Characteristics of Good Teachers and the Implications for Teacher Education," Phi Beta Kappan (February 1969): 341-44.

differences existed between teacher education students relating to the various curricula studied. He found differences in interests and personal qualities as well as ability.⁶ A possible conclusion is that specific kinds of people are more effective teachers of particular types of subject matter, with teacher effectiveness directly related to personality type, interest and subject matter itself.

Fields reported that many of the personal qualities and skills that educators have believed to be valuable in the past are not adequately defined or systematically linked to professional performance; rather they have been based solely on academic success. She further stated that several professional organizations have begun research projects aimed at improving the admissions process by trying more systematically to identify personal qualities and traits that can be linked with competence in various professional careers.⁷

A number of existing programs are doing outstanding work in their selection and admissions procedures. One such program is the Norwegian teacher education program which appears to utilize more effective teacher education selection and admissions criteria than does the United States. Dullaert reported that Norwegians do a superior job of selecting and preparing elementary school teachers. Factors that

⁶A.J. Lien, "A Comparative-Predictive Study of Students in the Four Curricula of Teacher Education Institutions," Journal of Experimental Education 21 (1952): 81-219.

⁷Cheryl M. Fields, "The Qualities Admissions Tests Don't Identify," The Chronicle of Higher Education 22 (1978): 1-9.

contribute to the success of Norwegian teacher education admissions processes are:

1. There are teacher education colleges designed especially to prepare teachers.
2. All applications are processed by a central admissions office, which is responsible for all education in the country.
3. The central admissions office has schedules for the quantification as a part of the data contained in each applicant's file. Each applicant may accumulate a maximum of sixteen points.
4. The nature of the factors considered in allocating points directly influences how the candidate spends time after graduation from the gymnasium (secondary school) and prior to applying for admission to college.
5. Point values assigned to data in the teacher education files are as follows:

Examen Artium (Gymnasium Examination) of acceptable quality, generally the two top grades (two points may be assigned).

Practical work experiences since the Examen Artium (two to five points).

Working a minimum of 500 hours per year in a school (two to eight points).

Studies in education (one to five points).

Social/community service; working with the church, political parties, etc. (one to two points).

6. Older, more mature individuals tend to enter the college. The majority are between 23 and 27 years of age.
7. Evaluation includes academic grades; medical reports; and letters of recommendation.⁸

⁸John Dullaert, "Norwegian Elementary School Teacher Preparation," Phi Delta Kappan (March 1978): 462-63.

Dullaert writes that he is convinced from his study and experiences in Norway's teacher education program for elementary teachers that the selection process is successful because of the positive consequences of the program. He found that 97 percent of those admitted to the colleges complete their programs successfully. Only one percent are expelled for academic reasons and two percent voluntarily withdraw from training. Among the teachers interviewed, overall job satisfaction was quite high and many were proud to be teachers.⁹

Many researchers charge that traditional teacher education programs are not meeting the needs of the participants. Teacher education has been criticized for its content, conduct and product. The traditional program assumes that if a student, planning to teach, experiences a specified number of courses in certain areas of study and undergoes some kind of student teaching experience, he/she is ready to begin teaching. The claim is that traditional teacher education programs are not producing teachers equipped to teach youth effectively. However, Full reminds us that the United States is the most open, most mobile, most dynamic society in the world and is also a society that is characterized by the greatest frequency of conflicts and controversies. Controversy, whether in teacher education or in other areas of social life, has its basis in the contradictory yet interrelated needs, ideas, beliefs, and values of men. By being involved in the wealth of current educational controversy, some

⁹Dullaert, Ibid.

educators are led to believe that contemporary conflicts are the first, or at least the greatest, the schools have ever faced; they fail to realize that disputes of the past were many and long and bitter just as they are today.¹⁰ Criticism of the content of teacher education comes from the participants in teacher education who are dedicated in their support of education, as well as from a minority who seek to subvert the goal of education for all American youth. Too often some educators critically evaluate sources of criticism and this, unfortunately, is reflected in their opposing arguments, and implies that an apology is in order for the unsettled state of affairs in education today.

The previous statement is supported by a study conducted by Spillane and Levenson on Teacher Training which suggests that teacher education is the form of professional training least respected by professionals and the general public. The content of teacher training courses is debatable. Competency is the catch word in the latest debate. In almost half the states, legislatures and departments of education have instituted programs of competency-based teacher education while the profession argues over whether we know the competencies a teacher needs and whether we know how to judge these competencies. Competency-based teacher education will not revolutionize the schools, because we are, as usual, arguing about the content of the courses, not about the essential issue, which is

¹⁰Harold Full, Controversy in American Education (New York: MacMillan Company, 1970), pp. 1-8.

control of the courses. All the competency-based teacher education courses leave the control of teacher education with the colleges and state departments of education which have created our present intolerable situation. The two groups which have the greatest stake in the result of teacher training, teachers and school districts, are left powerless. Without a shift in power, teacher education will never achieve intellectual respectability.¹¹

The traditional teacher education programs are not alone in being criticized. Various teacher educators have made comments, proposals and critiques relevant to teacher education programs criticizing the "competency" approach to developing teacher education programs.

Travers proposes, in his paper on "Role Development in Teachers," a different approach to the problem of improving teacher education. He claims that the problems are not how to manage teacher education programs but how to design them. There is no need of advanced management techniques, which is what Competency Based Teacher Education (CBTE) attempts to employ. One place to begin the design of teacher education programs is a search of what is known about behavior of teachers who produce high gains in pupils in measures of learning. Whatever can be learned from such research can indicate only the general teacher characteristics of the effective teacher in the presence of certain broad traits that characterize behavior. Collectively these constitute a classroom

¹¹Robert R. Spillane and Dorothy Levenson, "Teacher Training: A Question of Control, Not Content," Phi Delta Kappan (March 1976): 435-42.

role. He argues that the overall role of the teacher in the classroom is the central crucial condition related to learning on the part of the pupils. Therefore, teacher training must open up to the student of education a range of techniques through which the classroom role can become effective for promoting learning in the classroom.¹²

In 1954, the courts began to establish rules on rights and education. During the 1960s the nation's social problems erupted into civil rights movements. From that time on the federal government has given attention to teacher education by developing and funding such programs as Trainers of Teachers of Teachers (Triple T), Teacher Corps, The Comprehensive Elementary Teacher Education Models (CETEM) project, Teacher Centers, the National Institute of Education and bilingual education. One program, for example, is the Competency-Based Teacher Education (CBTE) program, which concentrates on identifying and specifying the knowledges, behaviors and skills necessary for effective teaching. Competency-Based Teacher Education has become engulfed in controversies not of its own making, such as mandates to use CBTE in all teacher education programs. Many leaders have suggested that CBTE would have been more effective if it was purely educational instead of political.

Out of many research and development efforts in teaching education over the last decade have come both a commitment to quality teacher education and an emphasis on new programs and implementation

¹²Robert M. W. Travers, "Role Development in Teachers," paper presented at the MATE Conference, Western Michigan University, 1977.

strategies. The use of protocols, laboratory approaches and microteaching has added to instructional capabilities in many institutions of higher learning. Also, much effort and research have been devoted to field-originated programs. Teacher centers have been established and clinical supervision of student teachers has been promising.

In most states, teacher certification in a specific teaching area is required before an individual can be employed as a teacher. Local school systems depend on the state certification office to evaluate college transcripts and/or other credentials of applicants who may wish to pursue employment with a particular state. Teacher preservice education, and other degree programs in teacher education, usually take place at the college or university level. These programs are designed to assist preservice and inservice teachers in developing expertise which will have a direct influence on public school instruction and student achievement.

Colleges and universities providing Teacher Education attempt to produce teachers who make a maximum contribution to their pupils at all levels. The schools exist primarily to have an effect on the behavior and achievement of their students.¹³ Consequently, the way for colleges of education to affect school instruction is through preservice and inservice education of teachers.

Educators seem to agree that inservice education is essential in order for teachers to continue to develop the expertise needed to cope with the vast demands placed on classroom teachers. Therefore,

¹³R. Baker Bousell and William B. Moody, "Are Teacher Preparation Institutions Necessary?" Phi Delta Kappan 54 (January 1973): 289.

the literature suggests that many school districts have increased their inservice activities for teachers and have explored a variety of methods to implement these programs. Both product and process evaluation seem essential in order to provide the necessary information on which to judge the effectiveness of such training programs. The ultimate goal of most inservice programs may be viewed as a change in the product.¹⁴ In this study the product is a change in teacher behavior as a result of inservice education in regard to the use of selected generic teaching skills. The more immediate objective may be viewed as a process change in which the teacher demonstrates a perceived cognitive, affective or behavioral development as a result of the inservice training.

Little effort has been made to evaluate inservice education programs. When an evaluation has been made, it has often taken the form of a series of questions asking the participants to indicate the perceived degree of enjoyment, interest, or value in the inservice activity. Few programs have used product evaluation in order to link student achievement to teacher training.¹⁵

When inservice programs are subjected to either a product or process evaluation, teacher effectiveness must be measured in terms of changes in pupil behavior that are attributable to the teacher's assistance. However, this can be accomplished only if it is theoretically possible to assess a teacher's effectiveness by

¹⁴Thomas P. Fitzgerald and Richard M. Clark, "Process Evaluation for Inservice Training," *Reading Improvement* 12 (Winter 1976): 194-98.

¹⁵*Ibid.*, pp. 194-98.

measuring how pupils learn from the teacher, and at the same time, make allowances for other influences on pupil learning. In a practical situation, however, such measures of teacher effectiveness lack both reliability and validity to a degree that probably makes them legally indefensible as indicators of an individual teacher's competence. The only feasible approach to the assessment of individual teachers seems to be to assess their mastery of ways of behaving on the job which effective teachers have been shown to use. This presents a problem, and Coker suggests three basic approaches to a solution to the problem: (1) research on teacher effectiveness, (2) theory, and (3) teacher wisdom.¹⁶

Teacher wisdom appears to offer a little more promise than the other alternatives. This involves asking the teachers what behaviors are needed to make them effective. While most teachers cannot apply the breadth of knowledge of the researcher to the creative ingenuity of the theoretician, they are in immediate contact with all aspects of the problems as they occur, and may be less likely to overlook or incorrectly weight the importance of a single aspect. The teacher, moreover, has a stake in the problem; not only professional advancement, but survival, depends on how successfully the problem is solved.¹⁷ Fitzgerald and Clark concluded that the use of teacher self-ratings appears to be a

¹⁶Homer Coker, "Identifying and Measuring Teacher Competencies: The Carroll County Project," Journal of Teacher Education 27 (Spring 1976): 54-56.

¹⁷Ibid., pp 54-56.

reasonable approach to determine behavioral changes generated through inservice programs.¹⁸ Therefore, teacher perception (self-rating) of the use of generic teaching skills and observed behavior will be used in this study to determine teacher behavior in regard to inservice education.

Inservice teacher education is indeed a multifaceted enterprise. The considerable amount of attention it has currently generated might suggest it is a new phenomenon. However, this is not the case. Considerable resources have been given over to this activity for some time, and if anything, these are being retrenched. Some efforts suggest that inservice activity should or could be a relatively individualized, even a personalized, activity. There are countless self-improvement activities which teachers can engage in daily if they desire. Collegial sharing need not be as uncommon as it is. There are also numerous possibilities for further development by teachers who continue to cycle preservice student teachers through their classroom. The paraprofessional can be a rich source of learning.¹⁹

In recent years, American education has witnessed the advent of a large number of retraining efforts for teachers. These retraining programs have also been identified as staff development,

¹⁸Fitzgerald and Clark, 1976.

¹⁹Kenneth R. Howey, "Putting Inservice Teacher Education Into Perspective," *Journal of Teacher Education* 27 (Summer 1976): 101-5.

continuing education, professional development, and inservice.²⁰ However, one of the most perplexing and persistent questions in American education is: Why do teachers, who almost universally appear eager to improve their professional performance in the classroom and community, frequently respond with outright hostility to local efforts to inservice them?²¹

There seems to be a continuous effort through inservice training to assist teachers in improving their work with students. Recognizing many problems and approaches related to this type of professional development, it appears that there is a vast need for further research in this area.

Statement of the Problem

The problem in this study was concerned with evaluating the inservice component of the Michigan State University Performance Oriented Instruction in Teacher Education Program (POINTE), which is an outgrowth of the Competency-Based Teacher Education Program developed and implemented in cooperation with the Lansing School District, Lansing, Michigan. Another aspect of the problem was to determine if those teachers who were trained by the POINTE Inservice Program (Clinical Instructors) use and assess the importance of generic teaching skills any differently from those teachers who were not inserviced by POINTE. It is obvious that generic teaching

²⁰John N. Mangieri and David R. McWilliams, "Designing an Effective Inservice Program," Journal of Teacher Education 27 (Summer 1976): 110-12.

²¹James C. King, et al., "Some Requirements for Successful Inservice Education," Phi Delta Kappan 58 (May 1977): 686-87.

skills are basic skills necessary for excellent teaching. Research indicates that much has been done in the areas of "Inservice Education," "Teaching Skills," "Competency Based Teacher Education Programs." However, research concerning the use and importance of generic teaching skills by Clinical and Non-Clinical instructors is very scarce.

Purpose of the Study

It is expected that the use of selected generic teaching skills by secondary clinical and non-clinical instructors will be different, and therefore, the differences will be of significant benefit to inservice planners, school administrators, teachers, consultants, teacher educators, and competency-based education advocates. Therefore, it is the purpose of this study to investigate the perceived use of selected generic teaching skills, and observe classroom behavior of secondary clinical and non-clinical instructors in the Lansing school district, and determine the influence of inservice education on teacher behavior in regards to generic teaching skills.

Specifically, the purposes of this study are to determine:

1. If there is a relationship between self ratings by clinical and non-clinical instructors in their use of the generic teaching skills of maintaining attending behavior.
2. If there is a relationship between self ratings by clinical and non-clinical instructors in their use of the generic teaching skills in communication.
3. If there is a relationship between the ratings by clinical and non-clinical instructors of the importance of the generic teaching skills of maintaining attending behavior.

4. If there is a relationship between ratings by clinical and non-clinical instructors of the importance of the generic teaching skills in communication.
5. If there is a relationship between observer ratings and self ratings by clinical and non-clinical instructors in their use of the generic teaching skill of maintaining attending behavior.
6. If there is a relationship between observer ratings and self ratings by clinical and non-clinical instructors in their use of the generic teaching skills in communication.
7. If there is a relationship between self ratings by clinical and non-clinical instructors in their use of the generic teaching skills of maintaining attending behavior from the three secondary schools.
8. If there is a relationship between self ratings by clinical and non-clinical instructors in their use of the generic teaching skills in communication from the three secondary schools.
9. If there is a relationship between ratings by clinical and non-clinical instructors of the importance of the generic teaching skills of maintaining attending behavior from the three secondary schools.
10. If there is a relationship between rating by clinical and non-clinical instructors of the importance of the generic teaching skills in communication from the three secondary schools.

Importance of the Study

As a result of the demand for accountability in education in the past few years, Competency-Based Teacher Education has become almost a household phrase in education. Optional teacher education programs are being designed and implemented almost daily. The POINTE program at Michigan State University is an example. Many of these programs require the participation of university faculty, preservice and inservice teachers, local school administrators, students, and community people.

The design of these programs requires identification of teacher competencies for preservice and inservice teachers. Many of the inservice teachers supervise the activities of student teachers at their local schools. The inservice component of the POINTE program seems to suggest improved classroom teacher performance in the areas of generic teaching skills, observation, and evaluation of teacher competencies. There seems to be little or no empirical research to support this notion. Therefore, this study is important for the following reasons:

1. Little emphasis has been placed on the importance of generic teaching skills and how they are utilized by clinical instructors in the Lansing School District.
2. There is a need to determine how clinical and non-clinical instructors use generic teaching skills.
3. There is a need to determine whether clinical instructors experience significant professional growth and development as a result of the inservice education received from participation in the POINTE program.
4. There is a need to determine if the POINTE inservice education component provides clinical instructors with the capabilities to appraise their own teaching skills.

Generalizability

It is worth recognizing that the findings of this study may have impact far beyond the limits of the study itself. First, since the clinical and non-clinical instructors involved are from a normal population of secondary classroom teachers, it can be concluded that the findings will hold for a larger population of normal secondary classroom teachers, and may be implemented in their school districts. Second, there is no reason to believe that the inservice education

on the utilization of generic teaching skills is only workable for secondary clinical instructors. Rather, it may appropriately be used on other teacher populations. And finally, the concept of generic teaching skills is applicable in all teaching content areas of education and training where the transmission of knowledge and a change in behavior is the objective.

Limitations

The limitation factors of this study were as follows:

1. This study was limited to the assessment of the perceived and observed use of the generic teaching skills of attending behavior and communication.
2. Measurement of the importance of the generic teaching skills were limited to a self reporting paper and pencil instrument.
3. The population of this study was limited to three selected secondary schools in the Lansing school district, which prevented equal distribution of subjects in various cells.
4. The population of this study was limited to a selected group of trained and non-trained classroom instructors.
5. The assessment of the perceived and observed use of generic teaching skills were limited to secondary schools.

Definition of Terms

Definition for key terms used in the study will follow to provide a common basis for understanding.

1. Inservice Education - All activities engaged in by the professional personnel during their service and designed to contribute to improvement on the job.
2. Generic Teaching Skills - Pertains to a class of teaching skills related to secondary clinical instructors and supervising teachers which is common and essential to the teaching process.

3. Clinical Instructor - A classroom teacher with whom the student teacher works directly during the first and second terms of the POINTE program at Michigan State University. The clinical instructor receives 12 to 18 clock hours of special inservice instruction in the POINTE program. This instruction is planned by a team of public school and university teachers and is supplemented in the schools by clinical consultants.
4. Clinical Consultants - Classroom teacher relieved from a portion of his/her teaching load to provide supervision for both terms of field experience to the student teacher and the clinical instructor participating in the POINTE program.
5. Non-Clinical Instructor - Classroom teachers who have not received 12 to 18 clock hours of special inservice instruction in the POINTE program.
6. Competency-Based Education - A concept with primary emphasis on output or demonstrated product. Performance goals are specified in detail in advance of instruction. The student must either be able to demonstrate his ability to promote desirable learning or exhibit behaviors known to promote it. The student is held accountable, not for receiving grades, but for attaining a given level of competency, whereas the teacher and the institution are also held accountable for fostering the specified outcome behaviors.
7. Attending Behavior Skills - To use selected techniques for securing and maintaining the attending behavior and interaction of students so that desired learning activities are actively pursued as indicated by observations of students and teacher behavior.
8. Communication Skills/Questioning - The ability to develop and demonstrate the use of questions which provide for diverse levels of thinking.
9. POINTE - Performance Oriented Instruction in Teacher Education.
10. CBTE - Competency Based Teacher Education.
11. Competency - A behavioral objective type statement which is derived from a clearly defined task of teaching and can provide a means to measure the behavior of a teacher's performance during a teaching situation.

12. Enabling Objectives - An objective which describes those knowledges, skills, and attitudes which a learner must attain at some intermediate point if he is to attain the terminal objective competency.
13. Objective - Is an intent communicated by a statement describing a proposed change in a learner--a statement of what the learner is to be like when he has successfully completed a learning experience. A description of a pattern of behavior the learner will be able to demonstrate.
14. Assessment - An evaluation procedure which provides information on the level of performance of a student at the beginning, during, or at the conclusion of study.
15. Instructional Activities - Procedures whereby students are engaged in learning experiences and interacting with materials/communications resulting in the fulfillment of some type of learning.
16. Assessment Activity - Process of describing a person's work without placing a value judgment on it or indicating the level of quality needed to be successful.
17. Evaluation - A value judgment is made about the quality of work.
18. IDT - Instructional Development Team.

Organization of the Presentation

The investigation is organized and presented in five chapters. Chapter I has presented an introduction to the study. This section contains a brief historical background of many researchers' and authors' views on the characteristics of a successful inservice or orientation program for teachers. A statement of the problem under investigation, the purpose, importance, generalizability, and definition of terms, has been given. Finally, the organization of the study and summary are presented.

Chapter II presents a review of related and pertinent literature to the problem under investigation. This chapter is

organized in four parts: (1) Inservice Education, (2) Assessing Teaching Skills, (3) Competency Based Teacher Education, and (4) Supervision of Student Teaching.

Chapter III outlines the methodological procedures used in the study. It deals primarily with development of the instrument, collection of data, procedures for data processing, procedures for analyzing the data, and the interpretation of the data.

Chapter IV presents an analysis and interpretation of data, and is organized in three major sections: composition of the study; descriptive analysis of the population; tests of stated hypotheses; and summary of findings.

Chapter V presents the summary, conclusions, and recommendations for further research.

Summary

The first section of this chapter presented an introduction to the problem being studied by giving a brief overview of selection and admission policies into teacher education programs, CBTE movement and inservice education and, in addition, a theoretical basis and developments that seem to be significant to the improvement of preservice and inservice teacher education programs were presented.

The second section of the chapter contained a statement of the problem under investigation. The purpose of the study and the importance of the study, the generalizability, limitations, and definitions of terms were given.

In the third and final section of this chapter an overview was presented of the remaining chapters and the organizational format followed in the report.

CHAPTER II

A REVIEW OF RELATED LITERATURE

Introduction

The review of related literature dealing specifically with the problem of this study will be made by exploring several sources, such as the DATRIX system. DATRIX is a computerized information retrieval system that addresses itself to academic and non-academic research. It is a vast storehouse of knowledge; thousands of doctoral dissertations written in all fields.¹

Other sources which will be explored are: Education Index, books, social, psychological and educational journals, and the ERIC system. The review of related literature will be organized under four major headings: (1) Inservice Education, (2) Teacher Assessment, (3) Competency-Based Teacher Education, and (4) Supervision of Student Teaching. Research findings in these areas will provide the basis for the research questions and hypotheses of the study.

Inservice Education

This section of the review of related literature will deal with information in the areas of importance and needs of inservice education.

¹DATRIX, "Direct Access to Reference Information: A Xerox Service" (Ann Arbor, Mich.: University Microfilms), 48106.

Those closely involved in preparing teachers have recognized for years that the four year preservice program can only provide the new practitioner with competencies necessary for beginning teachers. Those competencies will suffice only if the beginner is appropriately assigned, adequately supervised, and individually assisted. This seems to suggest that inservice education, which is not only important for the beginning teacher but for the continued effectiveness and competence of the professional who has acquired good and bad habits, basic characteristics of teaching styles, beliefs and attitudes.

Edelfelt and Lawrence suggested that the missing dimensions of inservice education are well illustrated by contrasting inservice education with preservice teacher education. Preservice teacher education has an established framework. The responsibility for it is fixed. Institutions of higher education plan, operate, and control it. There are statewide regulations to guide it, and state and federal funds to finance it. Perhaps most important, undergraduate preparations are based on holistic concepts of the product. Different versions of such concepts are implicit in the standards of the National Council for Accreditation of Teacher Education (NCATE) and National Association of State Directors of Teacher Education and Certification (NASDTEC). In competency based programs, they are explicit. By contrast, neither the college or university nor the school district has embraced inservice education as a basic commitment. State approval programs for inservice education are weak or nonexistent. National Accreditation of Inservice Education is largely restricted to programs in colleges and universities, and at

this level it is skimpy and partial. Edelfelt and Lawrence also pointed out that teachers must arrive at their own synthesis of university and school district offerings, which typically deal with just segments of teaching competence, often unrelated to a whole. In summary, inservice education programs neither extend preservice frameworks nor have frameworks of their own except in rare instances.²

Rubin states that the absence of systematic school-university collaboration in teacher education preparation suggests that neither institution understands its proper role, and most studies on resistance of schools to change show that teachers are wary of innovations that require a radically different instructional technique and the effort to discover why promising new practices work in one situation and fail in another provides grim testimony to the capacity of the ill-trained teacher to imperil educational effectiveness.

As these difficulties manifested themselves, it became evident that they could not be overcome by the then prevailing system of inservice education. A majority of the programs were either so prescriptive that they insulted the teachers' intelligence, ignoring the need to fix teaching to one's own style and to the peculiarities of the particular classroom, or they were too vague to be useful. With rare exceptions, retraining or inservice activities dealt with lofty conceptions rather than with the fundamental skills of teaching.³

²Roy A. Edelfelt and Gordon Lawrence, "In-Service Education: The State of the Art," Rethinking In-Service Education, ed. Roy A. Edelfelt and Margo Johnson (Washington, C.D.: National Education Association, 1975), pp. 9-23.

³Louis Rubin, The In-Service Education of Teachers (Boston: Allyn and Bacon, Inc., 1978), pp. 5-6.

The availability of new technology now permits an approach to inservice education that promises greater efficiency and precision, and there is much research to suggest that teachers are more responsive to professional development after they have actually worked rather than before they have had an opportunity to work in a classroom situation.

Halik concluded that the first two years of a teacher's experience are most crucial. During the early period attitudes and beliefs are shaped and other characteristics of teaching are well established. Beyond this point in the teacher's career, inservice education becomes a matter of unlearning as well as of learning. This seems to suggest that teachers cannot learn to teach until they begin to work with children in a classroom situation.⁴

Most educators continue to believe that inservice education of good quality can lead to improvement in classroom performance, or provide guidelines for innovations in the curriculum, or prepare the teacher for promotion. There is a great range in depth and length of provision, and no consistent correlation between the quality of courses and awards to which they lead. It is important to remember that inservice covers a variety of activities, from reading in an institute library to participating in a school-based working-party, from classroom experimentation to workshop in a teachers' center.

⁴Richard J. Halik, "Teacher In-Service Education in the Affective Domain: Outcomes for Teachers and Students" (Ph.D. dissertation, Michigan State University, 1973), p. 24.

Different objectives have their individual routes to accomplishment.⁵

Fiske states that few people doubt the wisdom of giving priority to a substantiating expansion of inservice training in the next decade. When we begin to consider the methods of achieving the objectives, however, things are not as easy as they appear at first sight. Indeed, the more one examines possible strategies for improving and expanding the provision of inservice training, the more difficult the task appears.⁶

Rubin suggests that teachers' professional development via inservice education has not been taken seriously and that we have failed to develop an appropriate scheme, or methodology for monitoring inservice education. Decisions as to content, form and arrangement for inservice training have typically been handled at an administrative level with little input from the teaching faculty. Rubin also notes that teachers feel totally left out of a decision-making process that has direct impact on their professional welfare.⁷

⁵Kay Burton, "More Must be Made to Mean Better," Trends in Education 33 (May 1974): 4-8.

⁶Dudley Fiske, "Inservice Training: An LEA Appraisal," Trends in Education 33 (May 1974): 8-12.

⁷Louis J. Rubin, "Teacher Growth in Perspective," in Improving Inservice Education: Proposal and Procedures for Change, ed. Louis J. Rubin (Boston: Allyn and Bacon, 1971).

Mead implied that we have failed to avail ourselves of what may serve as the single most important source of information available for inservice training, the teacher.⁸

Brim and Tollett presented evidence to suggest that teacher attitudes reflect a general feeling that most inservice training is not responsive to their own needs.⁹

Ingersoll states that to fail to include the teacher in the decision-making process lacks sense for a variety of reasons:

(1) when teachers are involved at the choice point, they are more likely to carry their interest into actual training; (2) it fails to make financial sense to offer something that has little relevance to teachers' needs; and (3) to make all the decisions at an administrative level is little more than patronizing.¹⁰

Cruickshank, Kennedy, and Myers presented evidence supporting the use of teacher input in identifying problem domains. They provided secondary teachers with a problem inventory on which respondents were asked to rate the severity of the problem and its frequency of occurrence. Their analysis suggested that clusters of problem areas are dominated by factors labeled "invigoration" and

⁸E. J. Mead, "No Health in US," in Improving Inservice Education: Proposal and Procedures for Change, ed. Louis J. Rubin (Boston: Allyn and Bacon, 1971).

⁹J. L. Brim and D. J. Tollett, "How Do Teachers Feel About Inservice Education?" Educational Leadership 31 (1972): 251-52.

¹⁰Gary M. Ingersoll, "Assessing Inservice Training Needs Through Teacher Responses," Journal of Teacher Education 27 (Summer 1976): 69-76.

"control" which appeared on both analyses for severity of problem and frequency.¹¹

Inservice education is receiving increasing attention, according to many researchers, which seems promising to the continuing education of teachers. Because of its potential as a means to help the pressures on colleges and universities, inservice education is certain to become an increasingly important consideration of teacher education institutions in setting priorities. This seems to suggest that institutions of higher education will take more initiative in working closely with school districts to provide more services for teachers.

Wilén and Kindsvatter summarized a set of guidelines synthesized from five studies which suggested significant ways by which inservice education can be improved:

1. School districts must allocate specific funds for inservice education sufficient to maintain comprehensive and continuous programs.
2. The need of teachers must directly influence the nature and design of inservice education programs.
3. Teachers need to be directly involved in planning the goals, content, and instructional approach of inservice education programs.
4. Objectives of inservice education programs must be written and specified.
5. Area colleges and universities should serve as a major source for program director and consultants.

¹¹D. R. Cruickshank, J. J. Kennedy, and B. Myers, "Perceived Problems of Secondary School Teachers," Journal of Educational Research 68 (1974): 154-59.

6. Inservice programs should be held during the regular school day when possible and when not, teachers should be financially compensated for their participation.
7. Inservice education program evaluations must be assessed immediately upon completion based on objectives to determine the extent to which objectives have been translated into teacher behaviors in the classroom.¹²

Zigarmi and others conducted a study to determine teachers' preferences in and perceptions of inservice education in order to help them improve their work with students. Questionnaires were sent to a random sampling of teachers representing every school system in the state of South Dakota. A representative sampling of 1,239 teachers responded to one of the three questionnaires. The researchers reported on the responses of teachers to only one part of the three questionnaires: the part containing questions dealing with the types and usefulness of various kinds of inservice activities. Conclusions based on the study suggested that planners of inservice experiences for teachers can learn types and usefulness of various approaches to staff development. The authors concluded that:

1. Different types of inservice activities demonstrate that there are many approaches to staff development and that some less-frequently-used approaches (observation and assistance from other teachers, current trends, and summer workshops designed around local needs and held in the local school) should be included in staff development program planning.

¹²Richard Kindsvatter and William W. Wilen, "Implications of Research for Effective In-service Education," The Clearing House 51 (April 1978): 392-96.

2. Useful inservice education programs are planned in response to the assessed needs of teachers and build on the interest and strengths of the teachers for whom they have been designed.
3. Teachers should be provided with choices about whether to attend, what to focus on, when to start and which persons should be used as resources.
4. More time has to be set aside for development--time for planning and carrying out planned activities and for planning follow-up to help teachers extend and apply what they have learned.
5. Teachers are more committed to staff development if they have been involved in planning and have some control over the inservice experience.

These observations suggest to planners of inservice activities that there is a need to reassess the purpose of inservice education, which should be to support teachers in learning how to improve on what they are doing with students. Teachers themselves need to become involved in planning, organizing, and carrying out their own staff development programs.¹³

The U.S. Office of Education recognizes the crucial need for more effective continued training. However, inservice education is ill-financed in most if not all states. Although educators at all levels of education enterprise give lip service to the importance of inservice education in helping school personnel cope with changes in curriculum, methodology, materials, organizational structure, and student needs, there is little evidence that adequate financial resources are available to enable school staffs to organize inservice programs.

¹³Patricia Zigarmi, Loren Betz, and Darrell Jensen, "Teachers' Preferences in and Perceptions of In-Service Education," Educational Leadership 24, No. 7 (April 1977): 545-51.

Any discussion of inservice education will remain just a discussion unless several essential factors exist. Control of a system has traditionally rested with the funding agent. The present evolutionary process that inservice education appears to be following implies a nontraditional track. It is no longer appropriate to assume that money means full control. Teacher organizations are insisting upon involvement in every aspect of program development and implementation. The ultimate success of their position will depend on their ability to enlist other agencies as working partners in a joint effort for future change.¹⁴

Howey and Joyce pointed out some future directions in inservice education. They drew upon the data from their recent studies and concluded that well intentioned efforts such as needs assessments or on-site training in and of themselves do not adequately address the major structural and organizational changes needed in many situations to make the daily reality of the teacher's work world one more conducive to a style of learning that could be characterized as natural and continuing. Improvements in inservice education are also directly related to whether improvements in how schools are typically organized are made. For many teachers it is hardly a situation of more inservice but a need for a more conducive environment for their students and themselves to live in. The resolution to this problem then calls for a more realistic conceptualization of teacher roles

¹⁴Patricia A. Orrange and Mike Van Ryn, "Agency Roles and Responsibilities in In-Service Education," in Rethinking In-Service Education, ed. Roy Edelfelt and Margo Johnson (Washington, D.C.: National Education Association, 1975), pp. 47-55.

and structural organizational changes in schools which extend beyond the common practice of asking an individual what he/she needs, especially when the problem in many situations lies not so much with the individual teacher but elsewhere.¹⁵

The new movement for the establishment of teacher education centers will help strengthen communication between local school systems and teacher education institutions, which can be defined as an arrangement to promote collaboration in teacher education, both preservice and inservice. The centers involve teachers, school districts, and teacher education institutions. It draws resources from existing teacher education programs and is concerned with aspects of teacher education requiring mutual involvement of concerned institutions of teacher education.

The program of a teacher education center includes among many activities those which are designed:

1. To assess inservice training needs as perceived by classroom teachers, school district, college or university and other concerned agencies.
2. To provide joint planning by school districts and colleges or universities and to develop programs, including long term training activities based on inservice needs.
3. To provide resources for inservice training by whichever agents are best prepared to deliver services.
4. To assess needs and provide the resources and experience for clinical preservice teacher training.

¹⁵ Kenneth Howey and Bruce Joyce, "A Data Base for Future Directions in In-service Education," Theory Into Practice 17, No. 3 (1978): 206-11.

5. To include career-long teacher education to help teachers keep pace with the changing and diversified systems of instruction.
6. To foster cooperation and collaboration among teachers, school districts, and teacher education institutions which will allow for the emergence of new training strategies and procedures.
7. To place broader focus on inservice training to maintain skills for present roles and prepare for new roles and responsibilities.

With the development of teacher education centers more inservice education activities which have been conducted on the campuses of teacher education institutions will move to the regions served by the teacher education centers. The centers will provide experiences in real schools with children and youth.

If the teacher education centers now developing throughout the country live up to their expectations, a new and promising wave of realism will be injected into the preparation of prospective teachers and into the inservice training programs.¹⁶

A research and development agenda for the future must, of necessity, take partial direction from the unfinished business of the present. It is evident that many of the existing problems do not lend themselves to instant relief of the concerns and issues of inservice education. However, research and development can serve many purposes, and the present scene suggests that there is a place for most of these in the quest to upgrade inservice. Specific weakness must be analyzed, potentially promising solutions must be

¹⁶Peter F. Oliva, Supervision for Today's School (New York: Thomas Y. Crowell Company, Inc., 1976), pp. 395-400.

explored, and the results of these must be tried out in a variety of real-world situations.¹⁷

Shearron points out that Competency Based Teacher Education is a data based system for training teachers. CBTE precisely specifies that teachers must exhibit those competencies assumed to promote pupil learning, and/or demonstrate their ability to promote desirable pupil learning. Instruction in CBTE focuses directly on the development of those competencies thought to promote pupil learning. It is the opinion of Shearron that CBTE is a viable approach to bringing needs assessment and inservice activities together for continuous updating of teaching skills. The systematic data-based approach utilized in CBTE provides a means to the needs assessment and inservice education together with other parts of the school program.¹⁸

The systematic nature of CBTE with emphasis on objectives instead of courses substantially eliminate the problem of teacher education programs not providing a systematic approach to the professional development of teachers. As a result of the inservice activities offered by the Michigan State University POINTE program, it is evident that a great deal of interest and need for much of the work in CBTE programs is helpful to certified teachers. As the greatest number of persons who will be teaching during the next ten years are already certified, the opportunity and need for extending

¹⁷Rubin, 1978, p. 35.

¹⁸Gilbert F. Shearron, "Inservice-Needs Assessment: Competency Based Teacher Education," National Conference on Competency Assessment, Research and Evaluation (Houston: University of Houston, March 1974), pp. 112-23.

such inservice activities to that level is needed. Most teachers perceive this general approach as adding to their teaching an ability to better describe and analyze their behavior and to subsequently bring about improvements in their own teaching. It has also been suggested that emphasis on instructional skills has been beneficial to teachers in providing a different orientation to their overall teaching and leads to a greater focus on individual student assistance and resultant student growth.¹⁹

Teacher Assessment

For many years, the behavior of students and teachers in the classroom has been a focus of research. The related literature suggests that the problem has been how to obtain reliable objectives data on behavioral variables. Methods frequently used to study what goes on in classrooms and groups have been reviewed by Perkins. He describes methods used as follows: (1) verbatim recording of verbal behavior by machine or stenographer; (2) the use of anecdotal or narrative descriptions to obtain behavioral data that were less quantifiable but greater in scope; (3) LSCAR (observation schedules and records), a technique for measuring a teacher's behavior in the classroom; and (4) trained observers to judge and categorize classroom behaviors on the spot. A most recent advance method is the use

¹⁹ School of Teacher Education, Michigan State University and Lansing School District, "Development of a Competency Based Teacher Education Program Focusing on the Direct Teaching Experience," Final Report, Competency Based Teacher Education Grant (Michigan Department of Education, 1976), pp. 64-65.

of Kinscope recorder and television cameras mounted in classroom walls and operated by remote control.²⁰

Hatfield pointed out that most of the research on teaching which shows promise in describing effective teaching has not been translated into a form which is useful in teacher assessment or teacher education procedures and instruments used in research studies are frequently used in situations which do not demand the rigor and detail of research materials and these instruments dictate the kind of data to collect about teachers because of their availability to the researcher. However, beginning where we are now and teaching competencies generally being suggested by researchers, it is possible to list a few of those student behaviors in order to initiate further study and research. He refers to this list of competencies as generic competencies which are considered to be important to most types of teaching situations and for most teachers to learn. They are:

1. Students being supportive and cooperative.
2. Students being attentive to class activities.
3. Students participating in verbal interaction.
4. Students following specific activities to completion.
5. Students using media and resources for study.

Such behaviors can be influenced by the teacher, and are accepted by some researchers as the type of behaviors which aid students in learning.²¹

²⁰H. U. Perkins, "A Procedure for Assessing the Classroom Behavior of Students and Teachers," American Educational Research Journal 1 (1964): 249-60.

²¹Robert Hatfield, "Teacher Responsibilities and Areas for Teacher Assessment." College of Education, Michigan State University, 1977. (Mimeographed.)

Continuing efforts have been made over the years to describe the attitudes and performances of an effective teacher, to delineate the teaching act, or to identify the skills which effective teachers must possess. Earlier efforts consisted of attempts to describe effective teachers' behavior or performance, as opposed to the competencies teachers were expected to demonstrate.

Educators probably will agree with most lists that researchers have created to describe an effective teacher. However, some will point out that several of the characteristics are descriptions of a teacher as a professional person rather than statements of skills which teachers should be able to demonstrate. Current efforts to describe effective teaching focus on specification of performance or competencies which teachers may be expected to demonstrate. When teachers' behaviors are specified, the teacher can then begin to work to prepare to perform in the desired manner.²²

Efforts are being made through CBTE and other similar programs to specify teaching skills which are generic or common to teaching at all levels. Henson and Oliva cited fourteen such skills suggested by Allen and Ryan. They are as follows:

1. Stimulus variation
2. Set induction
3. Closure
4. Silence and nonverbal cues
5. Reinforcement of student participation
6. Fluency in asking questions
7. Probing questions
8. Higher-order questions

²²Kenneth T. Henson and Peter F. Oliva, "What are the Essential Generic Teaching Competencies?" Theory Into Practice 19, No. 2 (Spring 1980): 117-21.

9. Divergent questions
10. Recognizing attending behavior
11. Illustrating and using examples
12. Lecturing
13. Planning repetition
14. Completeness of communication

A feeling of anxiety is running through the teaching profession today and members of the profession are increasingly accountability minded and more concerned with real and imagined deficiencies of the public schools. State legislatures reviewing studies on student achievement which show youngsters below norms in basic skills and pressure from citizens for improvements in public education are adopting means such as competency testing for teachers.²³

Henry and Beasley list three major areas of concern with specifics under each area. The three areas are: personal qualities, professional qualities and teacher skills.²⁴

Combs' extensive list of teacher skills include following:

1. Know much about related subjects
2. Be adaptable to new knowledge
3. Understand the process of becoming
4. Recognize individual differences
5. Be a good communicator
6. Develop an inquiring mind
7. Be available
8. Be committed
9. Be enthusiastic
10. Have a sense of humor
11. Have humility
12. Cherish his own individuality
13. Have convictions

²³Ibid., pp. 117-21.

²⁴Marvin A. Henry and W. Wayne Beasley, Supervising Student Teachers: The Professional Way (Terre Haute: Sycamore Press, 1972), p. 160.

14. Be sincere and honest
15. Act with integrity
16. Show tolerance and understanding
17. Be caring
18. Have compassion
19. Have courage
20. Have personal security
21. Be creative
22. Be versatile
23. Be willing to try
24. Be adaptable
25. Believe in God

Combs defines the effective teacher as "a unique human being who has learned to use him/herself effectively and efficiently to carry out his own and society's purposes in the education of others."²⁵

Crow and Crow suggest that the effective teacher is one who:

1. Guides students in the mastery of subject matter
2. Helps students improve needed skills
3. Assists young people in the solution of their personal problems
4. Organizes and conducts efficiently all of the many activities that constitute classroom management
5. Develops satisfactory relationships with administrators
6. Participates in out-of-class experiences
7. Cooperates with the administration
8. Becomes acquainted with and cooperates with community
9. Learns to meet and work with parents
10. Gives evidence of a love of teaching and professional attitude toward teaching.

Throughout the review of related literature on teaching there are repeated basic areas. They include:

1. classroom management
2. rapport with students
3. knowledge of subject matter, methods of teaching
4. personal and professional characteristics²⁶

²⁵ Arthur C. Combs, The Professional Education of Teachers (Boston: Allyn and Bacon, Inc., 1965), pp. 2-3.

²⁶ Lester Crow and Alice Crow, The Student Teacher in Secondary Schools (New York: David McKay Company, Inc., 1964), p. 3.

Freeman and McMillan reviewed several studies on characteristics or behaviors dealing with pupil cognitive achievement and found that research does suggest that certain teacher behaviors or characteristics will influence student achievement. These include: (1) an indirect, interaction style; (2) structure or organization; (3) clarity; (4) emphasis on intellectual outcomes; and (5) variety of instruction. Two general personality traits, warmth and enthusiasm, also seem to influence student achievement.²⁷

Weigand states that too often in education we hear that someone is a "born" teacher or that he has mastered the "art" of teaching. Actually teaching should become a science and an individual who possesses certain needed competencies is one who has mastered the following teaching competencies: (1) knowing intellectual developmental stages, (2) formulating performance objectives, (3) developing questioning skills, (4) sequencing instruction, (5) evaluating progress, and (6) developing creativity. The six competencies are not sufficient by themselves. The teacher must also learn positive behavioral skills so that he or she may engage in human interaction with students. High interpersonal trust must permeate the classroom. Positive human interaction is necessary if high interpersonal trust is to develop.²⁸

²⁷Don Freeman and Jim McMillan, "Review of Research Relating Teacher Characteristics or Behaviors to Pupil Cognitive Achievement" (CBTE Project, Michigan State University, 1974), p. 10.

²⁸James Weigand, ed., Developing Teacher Competencies (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1971), p. 11.

The purpose of the study by Harvey and others was to assess the relationship between students' performance and teachers' resourcefulness, dictatorialness and punitiveness. In addition, the study provided a test of the replicability of earlier findings that "concrete" and "abstract" teachers differ in the kinds of classroom behavior they manifest. By replicating the findings of an earlier study these results made it clear that concreteness-abstractness of teachers' belief systems affect their overt resourcefulness, dictatorialness and punitiveness in the classroom. In addition, the results show that classroom behavior of the teacher and the behavior of the students are significantly related. Theoretically, the teacher's behavior could determine the children's behavior, the reverse could be true, both could be determined by a third factor, such as the organizational climate, or the effects could be produced by the interactions among all of these factors.²⁹

Medley and Mitzel investigated five measures of effectiveness of three dimensions of classroom behaviors on 49 beginning teachers in New York City public elementary schools, and analyzed with statistical controls on differences between schools and classes within schools. The five measures of effectiveness were found to center around two distinct aspects of effectiveness. Supervisors' ratings and pupils' reactions to their teachers appeared to reflect the teacher's ability to get along with children. However, teachers'

²⁹O. J. Harvey, et al., "Teacher's Beliefs, Classroom Atmosphere and Student Behavior," American Educational Research Journal 5, No. 2 (March 1968): 151-66.

self-ratings and measures of pupil gains (in reading and social skills) appeared to reflect effectiveness in stimulating pupils to learn to read. An attempt was made to find out what kind of classroom behaviors were associated with each type of effectiveness. Neither gains in group problem solving skill were found to be related to emotional climate and to verbal emphasis in classroom behavior. Supervisors rated those teachers who had the friendliest classrooms as most effective.³⁰

Miller and Miller conducted a study to determine the degree of importance of selected personal qualities and professional competencies that sixty-six administrators in the Louisiana public school system believed contributed most to the success of classroom teachers. Results of this study support personal qualities such as zeal, loyalty and cooperation contributed more to success of a classroom teacher than any of the other factors. They also suggest that professional competencies, classroom management and discipline, and knowledge of the subject matter are most important for a successful classroom teacher.³¹

This study was concerned with dependent-prone eighth grade students who were exposed to consistently direct versus indirect styles of teaching while learning geometry. A specially trained

³⁰Don Medley and Harold Mitzel, "Some Behavioral Correlates of Teacher Effectiveness," Journal of Educational Psychology 50, No. 6 (December 1959): 239-46.

³¹Clint Miller and Dorothy Miller, "The Importance of Certain Personal Qualities and Professional Competencies in Successful Classroom Teaching," Journal of Teacher Education 22, No. 1 (Spring 1971): 37-39.

teacher played both a very direct and a very indirect teacher role in a laboratory situation involving 140 students.

Students in the various classifications were then compared on the basis of pre- and past achievement tests in geometry. No differences were found between the clear goal and unclear goal treatments, indicating that in this study, at least, achievement of dependent-prone students was not affected by perceptions of the learning goal although an analysis of the direct and indirect treatments indicated that children taught by the indirect teacher learned more than did the children by the direct teacher.³²

Two data sets were used to assess the relation of teaching performance to pupil learning--the measures of teaching performances to pupil learning--the measures of teaching performance obtained from direct observations of teaching and from the teachers' report on their teaching activities and the measures of pupil achievement. All of the analyses on teaching performance suggested that what pupils had learned plus the presence or absence of certain teaching performances in the teacher's style accounted almost entirely for the pupil achievement by the end of the year.³³

Domino reported that there is an interaction between a student's achievement and the teaching style he/she is exposed to

³²Edmund Amidon and Ned A. Flanders, "The Effects of Direct and Indirect Teachers Influences on Dependent Prone Students Learning Geometry," Journal of Educational Psychology 52, No. 5 (1961): 286-91.

³³Frederick J. McDonald, "Effects of Teaching Performance on Pupil Learning," Journal of Teacher Education 27, No. 4 (Winter 1976): 317-19.

which differentially affect both the amount of learning that takes place and the degree of expressed satisfaction with the scholastic environment. One hundred students were selected based on their extreme scores on the achievement-via-conformance and achievement-via-independence scales of the CPI, were assigned to introductory psychology sections taught in either a conforming or an independent manner. An analysis of their scores on a final examination, as well as their ratings of teacher effectiveness and course evaluation, indicated a clear interaction effect. Students taught in a manner consonant with their achievement orientation obtained significantly higher means on the multiple choice items, on factual knowledge ratings of their essay answers, and on their ratings of teacher effectiveness and course evaluation, than their peers taught in a dissonant manner.³⁴

Hamacheck suggested that research on the teacher interaction styles suggest that some of the ways of interacting with students in the classroom are better than others. For example, Flanders studied teacher influence styles, pupil attitudes and resulting achievements in seventh grade social studies and eighth grade mathematics. Flanders uncovered four essential elements of teaching influence in the classroom in which motivation, learning and attitudes were superior. The four essential elements were: (1) the teacher provided a range of roles that varied from active, dominative

³⁴George Domino, "Interactive Affects of Achivement Orientation and Teaching Styles in Academic Achievement," Journal of Educational Psychology 62, No. 5 (1971).

supervision to more reflective, discriminating support; (2) the teacher switches roles rather than pursue a single interaction style; (3) the teacher bridged the gap between his/her diagnosis of a given situation and the course of action he/she should take; and (4) the teacher combined sensitivity and critical awareness so that, as the classroom's master observer, the teacher was able to make reasonable diagnoses of current conditions. Hamacheck also suggested that those teachers who were not successful were those who were inclined to use the same instructional, teaching and interaction styles in a more rigid fashion. That is, there seemed to be little variation from one classroom day or situation to the next.³⁵

Carl R. Rogers describes some evidence that the initiation of learning rests not only upon the teaching skills of the teacher, not upon the teacher's scholarly knowledge of the subject matter, not upon his/her curricular planning, not upon the use of audio-visual aids, not upon the programmed learning utilized, not upon lectures and presentation, not upon an abundance of books, though each of these are not excluded and might be utilized as an important resource. He suggests that the facilitation of significant learning rests upon certain attitudinal qualities which exist in the personal relationship between the facilitator and the learner.³⁶

³⁵Don E. Hamacheck, ed., "Toward More Effective Teaching," in Selected Readings: Human Dimensions in Psychology and Education 2nd ed. (Boston: Allyn & Bacon Inc., 1972), pp. 231-45.

³⁶Carl R. Rogers, "The Interpersonal Relationship in the Facilitation of Learning," in Selected Readings: Human Dimensions in Psychology and Education, ed. Don E. Hamacheck, 2nd ed. (Boston: Allyn & Bacon Inc., 1972), pp. 48-65.

Cruickshank and Kennedy attempted to identify measures of teacher effectiveness from four studies on the reaction between teacher and pupil change and teacher effectiveness. They described what seems to be a "universal prescription" for increasing teacher effectiveness: (1) teachers should use conditioning principles and programmed learning to increase pupil achievement; (2) open classrooms by eliminating "mindless" teacher restrictions on pupils; and (3) teachers should spend more time working at higher cognitive levels.³⁷

Whether teachers are aware of it or not, say Combs and Snygg, their behavior and their effectiveness as teachers depends upon their perceptions about themselves and the situations within which they are involved; particularly upon their beliefs, values, and convictions. Effective teaching depends upon teacher perceptions. In particular, it depends upon the kinds of perceptions they possess about the following: (1) what people are; (2) the goals and purposes of education in our society; (3) the adequacy of the teacher's own personality; and (4) effective methods of encouraging learning.³⁸

Competency-Based Teacher Education

Since the Civil War, most American teachers have been given increasingly specialized training, and presently, approximately

³⁷Donald R. Cruickshank and John J. Kennedy, "An Attempt to Identify Measures of Teacher Effectiveness from Four Studies," Journal of Teacher Education 22, No. 3 (Fall 1976): 261-67.

³⁸Arthur W. Combs and Donald Snygg, Individual Behavior (New York: Harper and Row Publishers, Inc., 1959), pp. 399-400.

two million practitioners are certified as having had professional training. The education of teachers has been examined and almost always found deficient. Therefore, it seems evident that educators and researchers should examine all aspects of teacher education programs if we wish to improve teacher candidates.³⁹

Research on teacher education and the careful rethinking about preparation of teachers are perhaps at their highest point in history, and should remain under critical study for some time. The writing and research of many authors has prompted professional teacher educators to think critically about programs that prepare young people for a career in teaching. The traditional teacher education program, if it were analyzed, would reveal that, typically, undergraduate programs for teachers consist of foundation courses, methods courses, and some form of practicum. The question is, does this program produce the kind of critical, decision-making person needed for teaching in our schools now and in the future?⁴⁰

Howsam and others point out that our society has reached the end of an era when severe shortages of teachers on a nationwide basis resulted in nearly open admission to teacher education programs and minimal academic performance expectations. Parents and other concerned citizens remain troubled by the failure of their children's schools and teachers to teach adequate levels of skills and

³⁹W. W. Wayson, "Developing the Teachers of Teachers," Theory Into Practice 13, No. 3 (June 1974): 177-86.

⁴⁰John R. Verduin, Jr., Conceptual Models in Teacher Education (Washington, D.C.: AACTE, 1967), pp. 1-2.

understanding in such basic areas as reading and mathematics. Public school administrators still complain that beginning teachers are often incapable of dealing with real problems of instruction and classroom management. Teacher education graduates frequently register their own disaffection with the preparation they received.⁴¹

Hatfield stated that we have been encouraged to examine the teacher education program and chart its future, because of declining enrollments, public concern about educational accountability, and the population of teachers becoming stable. A readjustment of some type appears necessary, and because of many questions raised both inside and outside the profession, teacher education institutions need to respond; need to think through the consequences and to do an intensive analysis of teacher education and look objectively at what teacher educators have to offer society.⁴²

McDaniels implies that the task of teacher education is to help children; however, as unreasonable as it may seem, the quantity of research linking teacher training and teacher performance with children performance is limited or nonexistent. The National Institute of Education plans to ask questions relating to teacher

⁴¹R. B. Howsam, et al., Educating a Profession: Report of the Bicentennial Commission on Education for the Profession of Teaching (Washington, D.C.: AACTE, 1976), pp. 6-7.

⁴²Robert C. Hatfield, "A Dynamic Future for Colleges of Education?" (College of Education, Michigan State University), pp. 1-6.

performance and learning repeatedly over the next several years on its program on teaching and curriculum.⁴³

Oestreich suggested that the nature of traditional student teaching programs provided experiences which leave much to be desired. The weakest link lies within the supervision component, whether it is on the part of the classroom or college supervisor or the subject area, learning theory and methods professors. There is little or no common thrust for professional growth and development of student teachers due to the lack of documented research or realistic assessment. For this reason a number of student teaching programs should be examined to determine whether there is defensible rationale for its continuation in its present form.⁴⁴

In view of the claim by educators, the federal bureaucracy, public school officials and classroom teachers, parents and concerned citizens that teacher education institutions are not doing the job they set out to do over 200 years ago, a movement has developed toward making improvements in the teacher education profession throughout the United States.

This movement is toward competency-based teacher education, a concept that developed over a number of years and has been spurred on by increasing demands for accountability, relevance, and cost

⁴³Garry L. McDaniels, "National Institute of Education and Research in C/PBE," National Conference on Competency Assessment, Research and Evaluation (Houston, March 1974), pp. 22-23.

⁴⁴Arthur H. Oestreich, "The Professional Growth of the Student Teacher," Phi Delta Kappan 55, No. 5 (January 1974): 335-37.

effective schooling. The most important factor in the development of the movement has been the technological readiness of the education community--a readiness that advanced rapidly during the sixties. The recent advances may be due to the investment of federal funds in research and development efforts, the willingness of practicing educators to address themselves more closely to the problems of the classroom, Teacher Corps projects, coupled with support of the protocol and training materials efforts, and the federally sponsored Triple T (Training for the Teachers of Teachers) projects which have focused attention on developing and conducting educational programs that are the collective, undertaking of classroom teachers, school administrators, teacher educators, community representatives, and students.⁴⁵

The Competency-Based Teacher Education movement has gained much attention in teacher education as possibly being superior to traditional ways of developing teacher knowledge, skills and attitudes necessary to facilitate pupil learning. CBTE aims at quality, using the latest research and technology, with performance goals to prepare students to demonstrate ability to promote desirable learning. However, the CBTE approach to improving teacher education is not without criticism and controversy of its effectiveness.

Competency-based teacher education is a strategy for centering teacher education on the acquisition of a pre-determined

⁴⁵Benjamin Rosner and Patricia M. Kay, "Will the Promise of C/PBTE be Fulfilled," Phi Delta Kappan 55, No. 5 (January 1974): 290-95.

list of specific, demonstrable and measurable teacher competencies which are assumed to be related to desired pupil performance. This statement, in one form or another, seems to be the underlying premise for all CBTE or PBTE programs. Each program has developed competencies, procedures to reach these competencies, and some type of performance measure to ascertain whether the student has reached the expected level of performance.

In many colleges' and universities' P/CBTE programs competencies deal with skills, attitudes, and interpersonal relationships combined in such a way that when a teacher completes the learning process, he/she should have the desirable teaching behavior. However, there are questions that need to be addressed. First, is it possible to determine teaching skills and can these skills be learned? Is it possible to determine classroom dynamics, to determine why it "comes together" one time and not another? Secondly, are those skills common to all teaching at all levels, in all subject content, or are they content specific? The first question must be addressed for any competency program to exist. The direction the program takes is determined by the choice made on the second question.⁴⁶

Quirk calls attention to the emphasis the CBTE program concept places on what the teacher can do rather than what the teacher knows or says, what he/she will do in certain teaching situations. CBTE

⁴⁶Charles W. Ford, "Mirror on the Wall, Who is the Best Teacher of Them All?" Educational Technology 15, No. 3 (March 1975): 43-46.

programs advocate and create long lists of performances as proof that the program is competency based. However, there is a problem with such a list of objectives. The problem of measurement lies in the reliability of individual measures. Quirk does not advocate that all competency-based programs should wait until the measurement experts catch up with the promoters, however a solution to the problems of linking teacher behavior to student outcomes which depends on the adequate reliability and validity of preservice measures of teacher competencies.⁴⁷

Berliner warns advocates of competency-based teacher education, statewide mandated evaluation programs, against a common disease often affecting education, that is, educational movement which is inducting the current epidemic of competency training and evaluation without the existence of empirical evidence of linking teacher behavior to student outcomes in classroom settings. Extensive construct validation must take place or the impreciseness of our language for describing the phenomena of interest will keep the empirical study of teaching at its primitive level.⁴⁸

Ainsworth claims that the concept of competency attainment and the supportive behavioral methodology has limited use and for many disciplines the concept has done nothing to clarify educational

⁴⁷Thomas J. Quirk, "Some Measurement Issues in Competency-Based Teacher Education," Phi Delta Kappan 55, No. 5 (January 1974): 316-19.

⁴⁸David C. Berliner, "Impediments to the Study of Teacher Effectiveness," Journal of Teacher Education 27, No. 1 (Spring 1976): 5-13.

objectives and has not proved useful as a tool for determining curricular content, and has debased educational standards. He claims that the focus of CBTE programs has been on achievement as opposed to instruction, and in order to implement CBTE programs successfully, an institution's assessment or accreditation function must be disestablished from its teaching function and this can be done entirely within the framework of setting standards of desirable achievement exclusive of the concept of competency attainment and behavioral philosophy.⁴⁹

Gage defends the search for the kind of relationship that will make competency-based teacher education truly advantageous. He supports the search against logical or conceptual attacks, against methodological criticisms, against premature discouragement, and against complacency about current approaches. Competency-based teacher education should go on, even before the research successes that we seek have been won, because without the fruits of such research it provides a tremendous heuristic advance over conventional teacher education. CBTE exposes the questions we need to ask, and it proceeds in an optional way on the basis of what knowledge about teacher competencies is now available.⁵⁰

⁴⁹David Ainsworth, "Examining the Basis for Competency-Based Education," Journal of Higher Education 68, No. 3 (May/June 1977): 321-29.

⁵⁰N. L. Gage, "Evaluating Ways to Help Teachers to Behave Desirably," National Conference on Competency Assessment, Research and Evaluation (Houston: University of Houston, March 1974), pp. 177-85.

Flanders states that the continuing evaluation of teacher performance could and should lead to program changes. However, he warns against discarding old ideas as new ones come along. Such changes would again lead to shifts in priorities of the performance-based teacher education program. Educators and researchers, designers of CBTE or PBTE programs must remain sensitive to the possibilities that the way skills are learned may turn out to have more impact on beginning teachers than what is learned. Therefore, emphasis should be on helping teachers to reassign priorities within their own repertoire of skills. Problem areas in research on teaching where considerable progress can be expected in the next decade are measuring educational outcomes, analyzing the interactive patterns of teaching and learning, and inventing more effective training procedures for adults who want to learn teaching skills.⁵¹

Joyce proposes a six stage model for identifying and validating competencies as follows:

1. The process begins with the partitioning of the teacher's role.
2. The specification of role outcomes should be defined and how it is expected to function.
3. Developing appropriate settings in the role can be played and specifying the kinds of support systems available to the teacher.
4. Identification of which model of teaching enables the teacher to fulfill the role.

⁵¹Ned A. Flanders, "The Changing Base of Performance-Based Teaching," Phi Delta Kappan (January 1974): 312-14.

5. Identification of the patterns of behavior used and behavioral analysis of the model.
6. Laboratory and training systems.⁵²

Since performance in student teaching is the single most important criterion for predicting success in preservice teachers, it deserves close analysis by all parties involved in its planning and direction. Attempts to define teacher behaviors have blossomed into a revamping or remodeling of many teacher education programs to encompass competency-based concepts.

Major features of the competency-based approach to teacher education are:

1. Specification of competencies (objectives or expected performances) which are observable and measurable.
2. Self-pacing students, at least in theory, may proceed through the training program at their own speed, although time limits have been imposed.
3. Criterion-referenced measurements. Students pass on the basis of whether they achieve mastery of stated standards.
4. Field-based experiences. Real problems drawn from the school systems are incorporated into the training program.
5. Mediated instruction. The written word is supplemented with aural and visual materials.⁵³

⁵²Bruce R. Joyce, "Listening to Different Drummers: Evaluating Alternative-Instructional Models," National Conference on Competency Assessment, Research and Evaluation (Houston: University of Houston, March 1974), pp. 61-80.

⁵³Kenneth T. Hensen and Peter F. Oliva, "What are the Essential Generic Teaching Competencies?" Theory in Practice 17, No. 2 (Spring 1980): 110-21.

The state of Florida has been a leader in the identification of generic teaching competencies. In 1975 the Council on Teacher Education spearheaded a search to identify those competencies which are essential to all teachers. Forty-eight generic competencies consistently appeared in the search were selected for a final survey instrument. A random sample of five percent of all certified personnel in the state were asked to rate the competencies. Twenty-three generic competencies met the specified acceptance criteria. The 23 generic competencies are grouped around five major categories: (1) communication skills; (2) basic knowledge; (3) technical skills; (4) administrative skills; and (5) interpersonal skills. They address both cognitive and affective domains.⁵⁴

Parker conducted an evaluation on the effectiveness of the individualized performance based teacher education (IPTE) programs at Weber State College, one of the first teacher preparatory institutions to make a total commitment to PBTE. The major focus of the study was to determine whether the program components actually met field requirements, that is, whether program participants could actually perform on the job. The evaluation consisted of several phases. Careful and conservative examination of the evaluation results support that weaknesses exist in the program. First, there is the major decision to be made by program operators about whether to promote arbitrarily paced operation earlier in the quarter to relieve the pressures of the crunch, to change the policy and live

⁵⁴Ibid.

with a larger number of incompletes or try to teach students the attitudes and skills necessary to the competent self-pacers. A second problem surrounds student teaching and internship. A contradiction exists between desiring more direct instruction and more evaluation. The students desired more direct relevance to student teaching tasks. There was also a failure in coordination between Weber State and the public school personnel. A third problem involved establishing reliability and validity in measures used to assess student performances. A fourth weakness in the competencies was the failure to enable graduates to deal effectively with students from minority ethnic groups and socioeconomic levels different from their own. And, finally, there was the need for informed interaction with faculty and a greater variety of learning experiences.

The major strengths of the program included: (1) general program structure in providing for satisfaction of most felt needs of students; (2) students can apply the competencies taught in the program as first-year teachers; (3) public school personnel judge program graduates to be more self-confident, adaptable, student-centered, and better able to fulfill leadership roles as first year teachers than graduates of the other program; and (4) the evaluation process employed in specifying expected student outcomes and stated outcomes themselves provided a means of program development and a frame of reference for judging its progress.⁵⁵

⁵⁵Reese Parker, "Weber State College Evaluates IPTE After Three Years, Phi Delta Kappan (January 1974): 320-24.

Weber State has been recognized by the AACTE for distinguished achievement award for a total commitment to PBTE. Publicity concerning this award caused the program to be perceived as the most comprehensive application of the performance-based concept in the country. Over 550 institutional representatives have observed the program and their reactions have been overwhelmingly positive.⁵⁶

Recently, the Florida Council on Teacher Education (COTE) completed a comprehensive study designed to identify competencies essential to teachers. The research was selected for one of the two national awards given in 1977 by the Association of Teacher Educators. Approximately five percent of all certified educators in the state of Florida were selected to represent the state's 67 county districts. The consensus criterion was met with 87 percent of the educators responding to a competency as "always" or "frequently" necessary in their jobs, a majority using the "always" category. The criterion yielded 23 competencies with an "essential" label. They were called "the knowledge and skills necessary for teaching, irrespective of subject matter or pupil ages." A validation study to reassess the judgment of the teachers regarding the 23 behaviors was conducted. The conclusion was that the sample of the group of elementary, junior high and high schools provided some inferential results demonstrating that teachers view the competencies as essential.⁵⁷

⁵⁶Ibid., p. 320.

⁵⁷Charles D. Dziuban and Timothy J. Sullivan, "Teaching Competencies: An Investigation of Emphasis," Phi Delta Kappan 59 (Fall 1978): 422-24.

Illinois State University was another one of the first major teacher preparatory institutions to install a full-scale CBTE program. Since that program was described six years ago, ISU leaders have been forced to make drastic changes. An analysis of the program evaluations led to the conclusion that the single-format, self-paced competency-based program did not adequately meet the varying instructional needs of students. About 25 percent of the students were unable or unwilling to pace their own learning effectively, but another 25 percent (primarily the older and/or married students) used self-pacing effectively. Faculty discontent stems from limitations (both real and imagined) on academic freedom, from honest differences of opinion concerning basic instructional content and strategies, and from the virtual impossibility of reaching consensus on standards for evaluation of skills at the higher cognitive level called for in teaching and evaluation of lessons. ISU has not found the solution to all of these problems, but work is continuing. It is likely that the teacher education program will continue to grow and change as attempts are made to make teacher education more efficient and satisfying for all concerned.⁵⁸

During the summer of 1977 a follow-up study was conducted to determine if any changes were evident in the involvement of AACTE institutions in competency-based programs. The following statements summarize the findings:

⁵⁸M. A. Lorber, "From Traditional to Competency-Based Teacher Education and Back Again: An Eight-Year Experiment," Phi Delta Kappan 60 (March 1979): 523-24.

1. Fewer AACTE institutions were making plans to initiate CBTE programs in 1977 than 1975.
2. More AACTE institutions were operating CBTE programs in 1977 than in 1975.
3. Institutions that had CBTE programs in operation in 1975 had enlarged their programs to include more areas by 1977.
4. The areas most frequently involved in CBTE by AACTE institutions remained the same in 1977 as in 1975: elementary and secondary education, special education, and educational psychology.
5. Although 50 percent of the institutions that initiated their CBTE programs with outside funding had their funds discontinued by 1977, the CBTE program remained stable or continued to increase in 72 percent of them.
6. Of the 398 institutions that were operating CBTE programs in 1977, 50 percent planned to continue with their existing programs, 31 percent planned to increase their programs, while only six percent planned to decrease their programs.
7. It appears that CBTE programs have not declined in AACTE institutions between 1975 and 1977, and in many instances, they have expanded.⁵⁹

Supervision of Student Teachers

Today supervision of student teaching is being challenged both from within and outside the profession. The continued existence of the university supervisor and cooperating teacher as the instructional leaders is an issue. However, it seems that the role of the supervisor is promising due to the tremendous amount of recent research that has contributed to new supervision processes which

⁵⁹Walter Sandefur and Douglas Westbrook, "Involvement of AACTE Institution in CBTE: A Follow-Up Study," Phi Delta Kappan 59 (May 1978): 633-34.

will provide new insight and better ways of improving supervision of student teachers.

The goal of supervision seems to be modification of behavior, however, few administrators or college professors of teacher education think of supervision in this way or admit that they do. Nevertheless, as a result of supervision the pre or inservice teacher is expected to do or say something differently than he/she did prior to the supervision experience. Therefore, the writer will attempt in this section of the review of related literature to report what is being done at the university or college level in providing supervisors with appropriate competencies to become effective supervisors of student teachers and to improve their own classroom teaching.

Spanjer contends that to assume that student teaching behavior can be improved by sporadic visits from a university supervisor is one of the long standing myths to be found in most schools of education. To be effective, supervision must be a continuous process which attempts alternative behaviors and requires constant feedback. The classroom supervising teacher is the one who makes the difference for good or bad. Good teachers and good supervisors are not mutually inclusive. It makes no significant difference in the number of years taught, degree earned, or whether the teacher is superior. The difference as to his/her effectiveness as a competent supervisor depends on whether the supervising teacher has learned the professional competencies of supervision in a carefully planned and extended program of teacher preparation. If supervision is to be effective and beneficial to supervising teachers, student teachers,

public schools and colleges of teacher education, it must be based upon a theoretical rationale and take place in the context of a well planned program with explicit objectives, procedures, and assessment measures.⁶⁰

Cornish comments on the notion that teachers of tomorrow tend to teach by principles observed in the classroom of their supervising teacher. The student teacher tends to behave in the same manner he sees the teacher behave and to operate on values and to take with him/her many attitudes sensed while observing. Therefore, there is a need to offer proper training to those key personnel. There is a need for well-organized educational programs for supervising teachers. This program can involve informal get togethers, workshops, meetings, and that which could be most beneficial of all, a specific graduate course entitled "The Supervision of Student Teachers." He suggests that the results of such an effort could lead to improvement in the offerings of our educational programs, to the youngsters in our country and this in turn would lead to the improvement of our society.⁶¹

Davis and Davis suggest that the professional relationship between the student teacher and the supervising teacher is the most important factor in the success of the student teaching experience. The supervising teacher presents a model both in terms of verbal

⁶⁰Allen A. Spanjer, "Competency-Based Student-Teacher Supervision," NASSP Bulletin (December 1975): 51-8.

⁶¹Robert L. Cornish, "The Education of Cooperating Teachers and College Supervisors," Teacher Education 15, No. 2 (Fall 1979): 17-21.

style and the physical setting of the classroom which has significant impact on the performance of the student teacher.⁶²

Traditionally, university supervisors have considered student teachers their primary responsibility and supervising classroom teachers only secondarily. Since the college supervisors have many roles and responsibilities it is difficult to be totally effective in meeting individual needs. Even if university supervisors are able to visit classrooms regularly, they are unfamiliar with the day to day program as well as with problems and needs of individual children. Supervision then results in barely nothing more than a public relations gesture rather than a substantial attempt to improve classroom interaction. Therefore, it is obvious that classroom supervising teachers are in the best position to direct day to day development of teaching skills. The college supervisors are in positions to best accomplish the goals of the university and to direct their efforts toward developing inservice activities for the supervising teacher. Specifically, a classroom supervising teacher requires teachable skills to become an effective supervisor of student teachers.⁶³

Wiles and Brooks suggested that through jointly designed workshops teachers who supervise student teachers can be introduced

⁶²Jon K. Davis and Kathryn W. Davis, "Maximizing Positive Student-Teaching Supervision Relationships Through Performance Contracting," College Student Journal 11, No. 2 (Summer 1977): 193-96.

⁶³Lowell Horton and Karen Karvey, "Preparing Cooperating Teachers: The Role of the University Supervisor," Peabody Journal of Education 57, No. 1 (October 1979): 56-60.

to the design of the university teacher education programs. The training experience establishes the extent by which supervisors make significant improvements in the teacher educational program and their own classroom teaching. A sensible model of teacher training can emerge when the programs of the university are blended with the experiences and knowledge of classroom teachers.⁶⁴

Can an educational plan for preparing instructional leaders (supervising teachers) be developed which is both competency-based and largely field oriented? Can a competency-based learning format be utilized effectively in field settings not directly under the control of a university faculty? These questions are being addressed by the efforts of a program in progress at the University of Texas.

Williams and others describe the University of Texas Special Education Supervisor Training Project (SEST) which has a set goal, which is the preparation of change-oriented instructional leaders for supervising positions in special education in public schools and other educational settings. The program is designed so that graduates of the program can fulfill state standards for certification as professional supervisors. The major features and philosophy of "competency-guided instruction" are defined and because competencies are conceived to be complex on the job performance patterns, the SEST model for specifying competencies is rather complex and is spelled out in detail. Briefly, each competency is composed of

⁶⁴Jon Wiles and Douglas Brooks, "The Extended Faculty: Critical Elements in Student Teacher Supervision," Contemporary Education 49, No. 2 (Winter 1978): 75-77.

three parts. Each is derived from problem solving, human relations and job task, to behavior repertoires. A given competency is the expression of a synthesis of all three domains in a job situation. The project model defines 27 of these critical competencies for special education supervisors. The 27 critical competencies are further broken down into 245 specific competencies for assessment and training purposes.⁶⁵

Morris described a program, with developmental stages and focus areas, which has the potential for guiding supervising teachers, university supervisors, and coordinators of field experiences as they design and implement inservice programs directed toward improving the student teaching experience. The program is designed in five sequential stages as a basis for systematic development of inservice improvement programs to prepare supervising teachers who are:

1. Developing awareness and understanding student teachers.
2. Developing knowledge of principles necessary effective during the early part of the student teaching experience.
3. Developing supervisor's attitudes and competencies needed by beginning professionals.
4. Supervisory skills are polished to prepare highly skilled teachers of teachers.
5. Focuses on developing supervising teachers into agents of educational change.

⁶⁵Martha Williams, et al., "Structuring Field Learning in Competency Guided Programs," Performance-Based Teacher Publication 3, No. 9 (March 1975): 1-3.

The goal of every inservice improvement program should be to assist each supervising teacher in reaching a specific stage of professional development. Only in this way can significant improvements in the quality of the student teaching experience be achieved.⁶⁶

In mid-1970 the University of California at Santa Barbara (UCSB) initiated the development of a training program for supervising teachers who work with student teachers in the schools. Training activities focused on four skills areas critical in the performance of supervisors; namely, observing, analyzing, prescribing and counseling. After three years of development work, UCSB produced a self-contained instructional supervision training program which has demonstrated its capabilities for advancing selected supervising skills in both college and local school systems.⁶⁷

An investigation was conducted to determine the effectiveness of the University of California at Santa Barbara training program for supervising teachers. Nine field sites across the United States were used. Sixty different scores were available for the analysis of training effects; fifty-three of the scores are in the desired direction and forty-five were statistically significant. Specific positive comments from users included the observations that (1) the training program was useful and relevant; (2) the instructional supervision process serves as a model of good teaching technique;

⁶⁶John E. Morris, "A Strategy for the Development of Supervising Teachers," Clearing House 53, No. 8 (April 1980): 367-70.

⁶⁷Norman J. Boyan and Willis D. Copeland, "A Training Program for Supervision: Anatomy of an Educational Development," Journal of Educational Research 68, No. 3 (1974): 100-116.

(3) the instructional supervision process helps beginning teachers to make self-evaluations; and (4) the program addresses the improvement of classroom instruction through the acquisition and application of pertinent supervising skills.

Assumptions invoked by the UCSB staff in building a model of instructional supervision processes include: (1) instructional supervision must focus on a teacher's instructional concerns, particularly with respect to the effects of the teacher's behavior on pupils.⁶⁸

Andresen compared supervising teachers who participated in a series of three inservice sessions for supervising teachers with a group of supervising teachers who were not specifically given inservice training. The content of the inservice sessions consisted of specific behavioral objectives related to Flanders interaction analysis, conference techniques, and the evaluation of the student teacher. As a result of this investigation it was concluded that supervising teachers who participated in the selected inservice training were more effective in using students, participating in student teaching center activities, and on evaluational techniques than teachers who did not receive the inservice training.⁶⁹

Reaves conducted a study to determine possible differences in verbal exchanges between supervisors and teachers contrasting clinical supervision and traditional supervision. Seven supervisors,

⁶⁸Ibid.

⁶⁹Glenora I. Andresen, "The Development of a Tentative Model for Selected Inservice Experiences for Supervising Teachers at Flint College" (Ph.D. dissertation, Michigan State University, 1971).

each of whom worked with one teacher, made up the clinical pattern. Thus, post-observation conferences were taped and analyzed by trained observers using Blumberg's technique (a system for analyzing supervisor-teacher interaction). The data revealed a significant difference between treatment groups favoring the clinical supervision style. Teachers responding on a semantic differential scale also favored the clinical supervision style.⁷⁰

Stewig investigated the perceptions of student teachers and supervisors of the role and qualities of the ideal supervisor. The results of the two groups responding to the survey, the most important task was clarification of their perception. However, the most frequently chosen as important by student teachers concerning the supervisory service was "stimulating the student teacher to evaluate his/her own teaching behavior." On the basis of these findings, it can be concluded that crucial differences exist between the perceptions of supervisors and student teachers that may hinder communication and limit supervisory effectiveness.⁷¹

Clem concluded in a follow-up study of resident student teaching program that supervising teachers benefit from participation in the program as follows: (1) personal satisfaction through helping a student teacher; (2) stimulation to re-evaluate his/her usual classroom practices; (3) student teachers were of great assistance

⁷⁰Charles A. Reaves, "A Test of the Clinical Supervision Model," The Journal of Education Research 70 (July-August 1977): 311-15.

⁷¹John W. Stewig, "What Should College Supervisors Do?" Journal of Teacher Education 21, No. 2 (Summer 1970): 251-56.

to the supervising teacher; and (4) classroom instruction was improved because of more detailed planning and was made more interesting to children because of "newer" ideas.⁷²

Henry and Beasley contend that a student teacher can be an asset in many different instructional situations. The presence of a student teacher presents an excellent opportunity for the inservice growth of the supervising teacher. The supervising teacher should think of the student teaching experience as an opportunity for real professional growth, if this is done the possibilities for improved instruction are virtually countless.⁷³

Summary

The literature reviewed and presented in this chapter was related and pertinent to the problem being studied. Literature relating specifically to the assessment of inservice components of competency-based teacher education programs is very scarce. However, a review of related literature was made on (1) inservice education, (2) teacher assessment, (3) competency-based teacher education, and (4) supervision of student teachers.

The first section of the chapter on inservice education provides a theoretical basis for the problem under investigation.

⁷²Paul Null Clem, "Study of the Michigan State University Full-Time Resident Student Teaching Program" (Ed.D. dissertation, Michigan State University, 1958).

⁷³Morris A. Henry and W. Wayne Beasley, Supervising Student Teachers the Professional Way: A Guide for Cooperating Teachers (Terre Haute: Sycamore Press, 1976), pp. 8-9.

The review of literature indicates that the majority of articles published on inservice education are subjective and not the result of educational research. The review also summarizes studies which deal with various aspects of inservice teacher education. These studies produce generalized information about inservice education. However, the review of literature suggests that inservice education is necessary for the continuing growth and professional development of teachers.

The literature indicates that inservice education for supervising teachers of student teachers regarding teaching skills is limited.

The second part of the chapter presents a review of teacher assessment. Since specific teaching skills may be identified, are observable, and can be correlated with various measures of student learning, this review was important. A major limitation in the review of literature is that there are limited studies which suggest teaching skills that show a strong effect on student learning. However, the literature suggests that more and more teacher education institutions are beginning to focus on skills and behaviors of effective teaching and further recommend educational research in the area of teacher assessment.

In the third part of the chapter, literature is reviewed on competency-based teacher education. The review has summarized the major publications on competency-based teacher education and the majority of the articles deal with descriptions and evaluations of competency-based teacher education programs being implemented at

various teacher education institutions throughout the United States. Most of the literature cited supports the competency-based teacher education movement. However, it is often specifically stated that the majority of the competency-based teacher education programs need to improve validation of the program competencies with focus on the impact of the identified teaching competencies on student learning. The research on CBTE considers the effect of each single competency as well as the effect of the combined competencies.

The fourth and final section reviews literature on supervision of student teaching. The review summarizes articles and studies in the area of supervision of student teachers and the results of planned inservice activities for supervising teachers on their own classroom behaviors for much of the content of student teaching programs have identified competencies which can be helpful to certified teachers.

In conclusion, none of the literature reviewed disclosed any research that specifically focused on the assessment of the effective use of generic teaching skills by supervising teachers as a result of inservice training offered by competency-based teacher education.

CHAPTER III

PROCEDURES USED IN THE STUDY

In order for the reader to understand the investigation more clearly, this chapter provides a discussion of the procedures used in the study. They are as follows: (1) development of the instrument; (2) procedures for data collection; (3) data processing and classification; (4) procedures for analyzing data; and (5) hypotheses of the study.

Development of the Instrument

This section of the chapter will provide a description and discussion of the development of the instrument as follows: (1) a rationale for the development; (2) selection of competencies; (3) selection of observer; (4) validation of observer; and (5) pre-test of instruments.

Rationale for Development

Selection of instruments for this study was difficult because research regarding the inservice training component of the Michigan State University-Lansing School District POINTE Program was limited. Therefore, in order to assess the importance and use of skills generally applicable to all teachers, that are readily observable, and include: (1) the performance of teaching tasks;

(2) affective behavior; (3) a part of the 12-18 clock hours inservice training, and (4) inservice activities received by clinical instructors which had not been addressed. As a result, an exhaustive search and many hours of consultation with building site cluster consultants, university faculty members, members of the Michigan State University-Lansing School District team who were responsible for developing the proposal for the Generic Competency Based Teacher Education program, were carried on to gather the needed information.

The writer was able to identify only one instrument that was designed to assess importance of and the use of generic teaching skills as they pertain to the MSU-LSD POINTE program.

The instrument is used to evaluate and provide feedback to student teachers enrolled in the program. The student teachers are evaluated on their performance in classroom teaching situations. The instrument includes a competency and enabling objectives by which the student is to achieve the competency.¹ There is no information on the use of the instrument for collecting information concerning the effectiveness of the inservice program for supervising teachers (clinical instructors). However, the results of the use of the instrument on student teachers seem to be worthwhile. Therefore, the writer developed the teacher survey information questionnaire from the

¹School of Teacher Education, Michigan State University and Lansing School District, "Development of a Competency Based Teacher Education Program Focusing on the Directed Teaching Experience," Final Report, Competency Based Teacher Education Grant (Michigan Department of Education, 1976), p. 39.

competencies and enabling objectives used by the POINTE program.² This instrument seems to be comprehensive and represents generic teaching skills.

Selection of Competencies

The Michigan State University and Lansing School District Competency Based Teacher Education program consists of seven required competencies: (1) instructional planning; (2) attending behavior; (3) analysis of teaching; (4) questioning techniques; (5) interaction techniques; (6) social foundations and (7) reading comprehension. Evaluations are developed for each competency. These have not been checked for reliability and validity; however, under the 1975 CBTE grant, evaluations for the competencies Questioning Techniques and attending behavior have been developed which do have a high reliability.³ Validity of the two instruments was established, since the enabling objectives describe the kinds of things students and teachers do in the classroom and has been used successfully several times. Procedures for each of these instruments include several key elements. First, the separation of measurement and evaluation is made. A carefully prescribed time and means for recording or collecting descriptive information is followed. This step provides the observer with the basic data on which to make an evaluation. The

²See appendix C for a copy of Teacher Survey questionnaire.

³School of Education, Michigan State University and Lansing School District grant, 1975, p. 39.

decision on successful attainment of each competency is then made by summarizing the data and given a rating.⁴

Selection of Observer

Selection of an observer was of utmost importance because the observations and assessment of the use of these selected generic teaching skills by instructors in this study were done as a check point to see whether instructors responding to the questionnaire were giving themselves a fair rating of their effectiveness in actual classroom practice. Further, the observation instruments used in the study were developed by the members of the MSU-LSD CBTE program and therefore required training on the use of the instrument.

The observer was a teacher who had completed several hours of inservice training in supervision of student teachers including a working knowledge of the skills being taught in the MSU-LSD CBTE program. For more detailed information regarding the observer's training and professional qualities see Appendix D.

Validation of the Observer

The researcher carefully selected two teachers who had some working knowledge and skills in conducting observations on student teachers. Interviews and discussions on the use of the observation instrument were carefully explained step by step in order to reduce subjective judgment as much as possible. The two observers were given instructions on the procedures of conducting the observations.

⁴Ibid., pp. 39-40.

They conducted one observation on a teacher for a 30 minute teaching situation, after which the two observers were brought together to discuss with the researcher the descriptive data collected. The researcher compared each instrument and asked questions to test the face validity of the data or to check to see if two people could report and agree on what they actually saw and recorded. Based on the findings of this field study, the researcher then concluded that one observer could in fact conduct the classroom observations.

Pretest of the Instrument

The written and observation instruments used in the MSU-LSD CBTE program were administered to a group of teachers (N-10). Item analysis of the enabling objectives revealed that classroom teachers could not respond to the questions in their present form. Thus, it was evident that conclusions drawn from the use of the instrument suggested that the formulation of questions to be used with a population of inservice-trained teachers would have to be improved.

Reworded items were again judged to ascertain whether or not they were congruent with the desirability of the instrument. The revised instrument contained the same competencies and enabling objectives as the original.

The second pretest was with the revised instrument. This instrument was administered to a group which included classroom instructional teachers and administrators (N-15) located in the Lansing School District, Lansing, Michigan. This sample was thought

to be comparable to the sample to be investigated in this study. It was concluded from the results of this pretest that the instrument had demonstrated sufficient discrimination to progress to a validity investigation in which the test would be applied to different populations.

Procedures for Data Collection

This section of the chapter describes the data collection procedures used in the investigation. They are as follows: (1) the population used in the study, (2) sample selection, and (3) data collection.

The Population Used in the Study

The population for this study was restricted to three secondary schools which contained clinical and non-clinical instructors who met the following criteria:

1. Instructors were classroom instructional teachers who have received 12-18 clock hours of inservice training from the MSU-LSD CBTE program.
2. Instructors were classroom instructional teachers who had not received 12-18 clock hours of inservice training from the MSU-LSD CBTE program.
3. The staff must represent both male and female teachers.
4. The staff must represent a variety of subjects taught.
5. The school must be a CBTE site in which student teachers are assigned to complete the student teaching experiences.

The schools selected for use in this study were located in Lansing School District, Lansing, Michigan. They were (1) Everett

High School, (2) Gardner Junior High School, and (3) Walter French Junior High School.

Everett High School is located on the south side of Lansing and serves as the receiving high school of the two Junior High Schools in this study. Everett is also one of the four high schools in the school district. Gardner and Walter French Junior High Schools are two of the five Junior High Schools in the district. These schools were selected on the basis of criteria number 5. They are participating schools in the MSU-LSD Competency Based Teacher Education program and have assigned to them a cluster consultant, who is responsible for providing supervision for both terms of field experiences to student teachers and clinical instructors in the POINTE program.

Sample Selection

A population of 128 teachers was drawn from all three of the participating schools. A request was made for a random sample from the faculty roster of each of the schools. However, school officials indicated that this was not possible due to the limited number of clinical versus non-clinical instructors in the investigation. The design does not enable descriptive statistical comparisons to be made for each variable in the study.

Data Collection

Data for this study were collected during the months December 1980 and January 1981. After having received permission to conduct the investigation from the central administration office of

Evaluation Services, each participating school principal was contacted by the researcher for the following purposes: (1) to obtain further information concerning teacher class schedule; (2) to become more familiar with the school schedule; and (3) to obtain a date for the purpose of administering the instrument. Each school principal assigned one person, usually the cluster consultant, for the purpose of administering the questionnaire.

The cluster consultant in each school was given a brief overview of the purpose of the study and written detailed instructions on how to complete the instrument. Each section was carefully explained to the instructors. The subjects were given a date to complete the questionnaire and return to the building cluster consultant, who then returned it to the researcher.

After completion and return of the instructor self-rating questionnaire, a random sample of four (4) clinical and four (4) non-clinical instructors were drawn from each of the three secondary schools (N=24). Each of the selected teachers were then observed by the observer in a classroom teaching situation.

For the purpose of identifying which instructors to observe, each participating instructor was assigned a number and the cluster consultant provided the person and location of the classroom for the observer. The observer had no prior knowledge of which teachers were clinical or nonclinical instructors.

Each observation was 30 minutes in length and was conducted before noon.

Data Processing and Classification

This section of the chapter will discuss the procedures used in coding and classifying the data. This will provide a better understanding of the data processing procedures and also provide a basis for answering certain questions presented in the investigation. The data were classified in the following manner: (1) participation in inservice education, (2) knowledge and skill of attending behavior, and (3) knowledge and skill of communication questions.

Participation in Inservice Education

There are four types of inservice training programs. Each program was given a selection based on the number of clock hours, years, and/or credit earned to determine the frequency of participation and for the purpose of coding the instrument in two groups (clinical and non-clinical instructors). Each participant was assigned to a group based on the number of hours completed in Michigan State University-Lansing School District Competency-Based Teacher Education program.

Knowledge and Skill-Attending Behavior

There are fifteen (15) enabling objectives. The respondents were required to rate each skill/knowledge based on: (1) part A--the importance of that knowledge/skill to the teaching process, and (2) part B--their ability to consistently apply or use the knowledge/skill in classroom teaching. For each knowledge/skill importance of maintaining attending behavior response, the numerical value scale

of one (1) to four (4) with a rating of one (1) indicating crucial to teaching and four (4) indicating nonessential to the teaching process.

For each knowledge/skill, ability to maintain attending behavior response, the numerical value scale of one (1) to four (4) with a rating of one (1) indicating excellent ability to four (4) indicating poor ability to maintain attending behavior.

Knowledge/Skill-Communication Questions

There are twelve (12) enabling objectives. The respondents were required to rate each skill/knowledge based on: (1) part A--the importance of that knowledge/skill to the teaching process, and (2) part B--their ability to consistently apply or use the knowledge/skill in their communication (question techniques) with students. For each knowledge/skill (enabling objective) importance rating to classroom teaching response, the numerical value of one (1) to four (4), with a rating on one (1) indicating the skill is crucial to the teaching process and four (4) rating indicating nonessential to the success of teaching. For each knowledge/skill (enabling objective) ability to use communication questioning skills response, the numerical value scale of one (1) to four (4), a rating of one (1) indicated excellent and a rating of four (4) indicated poor ability to consistently use the enabler in their classroom teaching.

Observed Attending Behavior Skills

The instrument used for collecting descriptive data on the teacher's behavior included demographic data, directions for using the instrument, column for recording time, description for recording student and/or group behaviors and response by teacher. Teacher response was given a rating of a numerical value of one (1) to four (4). One (1) indicated excellent skills and four (4) indicated poor skills. The observer used the instrument that was used by the instructors for self-ratings to rate the observed instructor based on the descriptive data recorded during the 30 minute observations.

Observed Communication/Questioning Skills

The instrument used for collecting descriptive data on the teacher's behavior included demographic data, strategy or type of lesson, directions for using the instrument, space provided to record questions asked by the teacher, quality of the questions, student responses and type of questions. A rating of the level of questioning techniques used by the teacher was given a rating of one (1) to four (4). The rating of one (1) indicated excellent and four (4) indicated poor skills in asking a logical sequence of questions which reflected different levels. The observer used the instrument that was used by the instructors for self-ratings to rate the observed instructors based on the descriptive data recorded during the 30 minute observations.

Hypotheses of the Study

The general purposes of this study were to investigate the use of selected generic teaching skills as perceived, and observed behavior, of secondary clinical and non-clinical instructors in the Lansing School District, Lansing, Michigan, and to determine the influence of the MSU-LSD CBTE inservice education training on teachers' classroom behavior with reference to generic competencies.

Specifically, the purposes of the study are to determine the relationship between the use of generic teaching skills by clinical and non-clinical instructors and certain variables by utilizing the statistical test of hypotheses. The hypotheses were stated in the null form to facilitate acceptance or rejection.

The ten primary hypotheses are as follows:

1. There is no difference between self-ratings by clinical and non-clinical instructors in their use of the generic teaching skills of maintaining attending behavior.
2. There is no difference between self-ratings by clinical and non-clinical instructors in their use of generic teaching skills in communication.
3. There is no difference between ratings by clinical and non-clinical instructors of the importance of the generic teaching skills of maintaining attending behavior.
4. There is no difference between ratings by clinical and non-clinical instructors of the importance of the generic teaching skills in communication.
5. There is no difference between observer ratings and self-ratings by clinical and non-clinical instructors in their use of the generic teaching skill of maintaining attending behavior.

6. There is no difference between observer ratings and self-ratings by clinical and non-clinical instructors in their use of the generic teaching skill in communication.
7. There is no difference between self ratings by clinical and non-clinical instructors in their use of the generic teaching skills of maintaining attending behavior from the three secondary schools.
8. There is no difference between self-ratings by clinical and non-clinical instructors in their use of the generic teaching skills in communication from the three secondary schools.
9. There is no difference between ratings by clinical and non-clinical instructors of the importance of the generic teaching skills of maintaining attending behavior from the three secondary schools.
10. There is no difference between ratings by clinical and non-clinical instructors of the importance of the generic teaching skills in communication from the three secondary schools.

Statistical Analysis of the Hypotheses

The primary hypotheses of this investigation were analyzed by a multivariate analysis of variance. These statistical analyses were decided upon by the researcher through consultation with the research assistant.

The multivariate analysis of variance can be performed when two or more observations per cell are made. This makes it possible to compute the error sum of squares, or to estimate the error variance, and thus separate the interaction effect from the random error.⁵

⁵Lincoln L. Chaco, Statistics: Methods and Analysis (New York: McGraw-Hill Book Company, 1969), p. 381.

The data were coded and key punched on computer cards. The computer program used was the SPSS (Statistical Package for the Social Science). This program allows for the analysis of more than one dependent variable. The dependent variable used in the primary hypotheses in this investigation was the total perceived and observed ratings of the use of generic teaching skills. The independent variables were the scores on the clinical and non-clinical instructors' ratings and three secondary schools. The data analysed from the Teacher Information Questionnaire Survey and observer ratings were subjected to a test of significance of the means of the raw scores obtained from the responses of the three factors stated above.

The hypotheses of this study were tested by utilization of the appropriate programming and computations made by the IBM 370 computer used by the Lansing School District Computer Laboratory.

The stated hypotheses permit the prediction of direction of relationship and a multivariate test of significance. The critical "F" test of significance is used to test the null hypothesis of no difference between the variables. The .05 probability level is used as a criterion for the acceptance or rejection of the null hypotheses. When a hypothesis was rejected, the data were further analyzed by comparison of mean scores computed from data summary tables in Appendix F.

Summary

This chapter on procedures used in the study included development of the instrument, pretest of the instrument, procedures for data collection, data processing, procedures for analyzing data, and hypotheses of the study.

The first section of the chapter discussed: (1) a rationale for the development of the instrument, (2) selection of competencies for the instrument, (3) selection and validation of observer, and (4) pretest of the instrument.

The second part of the chapter discussed the following procedures for data collection: (1) the population used in the study, (2) sample selection, and (3) data collection.

The third part of the chapter discussed data processing and classification as follows: (1) participation in inservice education, (2) knowledge/skills-attending behavior, (3) knowledge/skill communication questions, (4) observed attending behavior skills, (5) observed communication questioning skills, and (6) hypotheses of the study.

Finally, the procedures for analyzing the data were described as follows: hypotheses to be tested and statistical analysis of the hypotheses.

CHAPTER IV

ANALYSIS AND PRESENTATION OF DATA

The primary purpose of this investigation was to assess the perceived use of selected generic teaching skills, and observed classroom behavior of secondary clinical and non-clinical instructors in the Lansing School District, and to determine the influence of inservice education on teacher behavior regarding generic teaching skills. The preceding chapter described procedures used in the development of the instrument, the procedures for data collection, processing and classification, procedures for analyzing data, and hypotheses of the study. This chapter will provide an analysis and presentation of these data as follows: (1) composition of the study, (2) descriptive analysis of the population, (3) test of stated hypothesis, and (4) a summary of the analyses and interpretation made from the data.

Composition of the Study

This section of the chapter provides a description of a selected group of 128 classroom instructional teachers teaching in grades seven through twelve in participating CBTE student teaching schools located in the Lansing School District. They were divided into two groups: (1) forty-five teachers who received inservice training comprised the clinical group, and (2) eighty-three teachers

all of the remaining teachers in each of the three secondary schools who did not receive inservice training made up the non-clinical group.

A total of twenty-four teachers were observed with regard to their use of generic teaching skills. This sample included teachers from each of the three secondary schools. Four clinical and four non-clinical instructors were drawn from each school. These random samples were obtained by placing the names of all the participants on a slip of paper, sorting the names by group and school (clinical and non-clinical) then alternately drawing a name from each pile, one from the clinical group and one from the non-clinical group.

Descriptive Analysis of the Population

This section of the chapter provides a description of a selected group of 128 classroom instructional teachers. The data collected and outlined in this section is intended to provide background information that will serve as a basis for a better understanding of the data in the remainder of this chapter. This section discusses clinical and non-clinical instructors by: (1) sex, (2) age, (3) highest academic degree earned, (4) number of years taught, and (5) subjects taught.

Clinical and Non-clinical Instructors by Sex

In relation to sex, Table 1 will show that 19 (42 percent) of the clinical instructors were females and 41 (49 percent) were non-clinical female instructors from the three secondary schools.

Twenty-six (58 percent) of the clinical instructors were males and 42 (51 percent) were non-clinical male instructors.

TABLE 1.--Total Population by Sex (Clinical and Non-clinical Instructors).

| Sex | Clinical | | Non-clinical | | Total Group |
|--------|-----------|-----------|--------------|-----------|-------------|
| | No. | % | No. | % | |
| Female | 19 | 42 | 41 | 49 | 60 |
| Male | <u>26</u> | <u>58</u> | <u>42</u> | <u>51</u> | <u>68</u> |
| Totals | 45 | 100 | 83 | 100 | 128 |

Clinical and Non-clinical Instructors by Age

Table 2 shows the age ranges of clinical and non-clinical instructors. There were more instructors in both groups who were in the 36-45 years age group and the 26-35 years age group. Twenty-seven (35 percent) of the non-clinical and 16 (36 percent) of the clinical instructors were in the 36-45 age group, whereas 26 (31 percent) of the non-clinical and 15 (33 percent) of the clinical instructors were in the 26-35 years age group.

TABLE 2.--Total Population by Age (Clinical and Non-clinical Instructors).

| Age | Clinical | | Non-clinical | | Total |
|-------------|----------|-----------|--------------|-----------|----------|
| | No. | % | No. | % | |
| 25 or under | 1 | 02 | 6 | 07 | 7 |
| 26-35 | 15 | 33 | 26 | 31 | 41 |
| 36-45 | 16 | 36 | 27 | 33 | 43 |
| 46-55 | 12 | 17 | 17 | 20 | 19 |
| 56 or older | <u>1</u> | <u>02</u> | <u>7</u> | <u>09</u> | <u>8</u> |
| Totals | 45 | 100 | 83 | 100 | 128 |

Clinical and Non-clinical Instructors
by Highest Academic Degree Earned

An examination of Table 3 will show that more clinical and non-clinical instructors had masters degrees than any of the other academic degrees. Thirty (67 percent) of the clinical instructors and 62 (75 percent) of the non-clinical instructors had masters degrees. Thirteen (29 percent) of the clinical instructors and 20 (24 percent) of the non-clinical instructors had bachelors degrees. One (two percent) clinical instructor and one (2 percent) non-clinical instructor had Educational Specialist degrees, whereas only one (2 percent) of the clinical instructors had a Doctor of Education degree.

TABLE 3.--Total Population by Highest Academic Degree Earned
(Clinical and Non-clinical Instructors).

| Degree Earned | Clinical | | Non-clinical | | Total Group |
|----------------|----------|-----------|--------------|-----------|-------------|
| | No. | % | No. | % | |
| Bachelor | 13 | 29 | 20 | 24 | 33 |
| Masters | 30 | 67 | 62 | 75 | 92 |
| Ed. Specialist | 1 | 02 | 1 | 01 | 2 |
| Ed.D. | <u>1</u> | <u>02</u> | <u>0</u> | <u>01</u> | <u>1</u> |
| Totals | 46 | 100 | 82 | 100 | 128 |

Clinical and Non-clinical Instructors
by Number of Years Taught

When considering number of years taught, Table 4 will show that more instructors have eleven to fifteen years in the teaching profession than any other category. There were 15 (33 percent) clinical and 22 (27 percent) non-clinical instructors who had taught 11-15 years. There were 10 (22 percent) clinical and 19 (23 percent) non-clinical instructors who had 6-10 years teaching experience. Eight (18 percent) clinical and 18 (22 percent) non-clinical instructors had 21 or more years of teaching experiences, and 10 (22 percent) clinical and 15 (19 percent) non-clinical instructors who had taught between 16 and 20 years.

TABLE 4.--Total Population by Number of Years Taught (Clinical and Non-clinical Instructors).

| Years Taught | Clinical | | Non-clinical | | Total Group |
|--------------|----------|-----------|--------------|-----------|-------------|
| | No. | % | No. | % | |
| 1 | 0 | 0 | 2 | 02 | 2 |
| 2 | 0 | 0 | 1 | 01 | 1 |
| 3 | 0 | 0 | 3 | 04 | 3 |
| 4-5 | 2 | 5 | 3 | 04 | 5 |
| 6-10 | 10 | 22 | 19 | 23 | 29 |
| 11-15 | 15 | 33 | 22 | 27 | 37 |
| 16-20 | 10 | 22 | 15 | 19 | 25 |
| 21 or more | <u>8</u> | <u>18</u> | <u>18</u> | <u>22</u> | <u>26</u> |
| Total | 45 | 100 | 83 | 100 | 128 |

Clinical and Non-Clinical Instructors
by Subjects Taught

The results given in Table 5 show subjects taught by the clinical and non-clinical instructors. More instructors taught mathematics and language arts than any of the other subjects. There were 5 (11 percent) clinical and 13 (16 percent) non-clinical instructors teaching mathematics; 7 (16 percent) clinical and 11 (13 percent) non-clinical instructors teaching language arts.

TABLE 5.--Total Population by Subjects Taught (Clinical and Non-clinical Instructors).

| Subjects Taught | Clinical | | Non-clinical | | Total Group |
|----------------------|----------|-----------|--------------|-----------|-------------|
| | No. | % | No. | % | |
| Mathematics | 5 | 11 | 13 | 16 | 18 |
| Science | 6 | 13 | 4 | 05 | 10 |
| Reading | 5 | 11 | 5 | 06 | 10 |
| Language Arts | 7 | 16 | 11 | 13 | 18 |
| Business Education | 2 | 04 | 3 | 04 | 5 |
| Social Studies | 5 | 11 | 8 | 10 | 13 |
| Performing Arts | 2 | 04 | 7 | 05 | 9 |
| Physical Education | 2 | 04 | 6 | 07 | 8 |
| Foreign Language | 1 | 02 | 1 | 01 | 2 |
| Industrial Education | 2 | 04 | 5 | 06 | 7 |
| Art | 3 | 07 | 3 | 04 | 6 |
| Vocational Education | 4 | 09 | 7 | 08 | 11 |
| Special Education | 1 | 02 | 8 | 10 | 9 |
| Drivers Education | <u>0</u> | <u>00</u> | <u>2</u> | <u>02</u> | <u>2</u> |
| Totals | 45 | 98 | 83 | 97 | 128 |

Test of Hypotheses

There are six primary and four secondary hypotheses in this study. The purpose of the primary hypotheses was to test for significant main and interaction effects among certain independent and dependent variables, and also to test for differences between single independent variables and dependent variables. The independent variables were (1) the three secondary schools, and (2) trained (clinical) and non-trained (non-clinical). The dependent variables were total ratings by the Instructors and the observer.

The multivariate (three-way, two-way) analysis of variance was performed to determine significant differences.

Primary Hypotheses

H₀1: There is no difference between self-ratings by clinical and non-clinical instructors in their use of the generic teaching skill of maintaining attending behavior.

A two-way analysis of variance (clinical by non-clinical) was performed on the total instructional group. The analysis shows a significant difference between the clinical and non-clinical instructors. The critical ratio for the F distribution is 10.430 with a probability of less than .005. Thus, the null hypothesis was rejected at the five percent significance level. Therefore, it was concluded that significant differences exist between clinical and non-clinical instructors. These data can be further observed in Table F2, Appendix F.

Since the null hypothesis was rejected, the data was further analyzed by comparison of the mean scores. Reported in Table 6, the higher mean scores of the non-clinical (1.94) as compared to that of clinical instructors (1.66) suggest clinical instructors rate themselves more positively in their use of the generic teaching skill of maintaining attending behavior than non-clinical instructors.

TABLE 6.--Total Group Mean Scores on Maintaining Attending Behavior.

| | No. | % | Mean Scores* |
|--------------------------|-----------|-----------|--------------|
| Clinical Instructors | 45 | 35 | 1.85 |
| Non-clinical Instructors | <u>83</u> | <u>65</u> | 1.98 |
| Total | 128 | 100 | |

*Extracted from Table F6, Appendix F, which contains more detailed information.

H₀ 2: There is no difference between self-ratings by clinical and non-clinical instructors in their use of the generic teaching skill of communication.

A two-way analysis of variance (clinical by non-clinical) was performed on the total instructional group. The analysis shows a significant difference between the clinical and non-clinical instructions. The critical ratio for the F distribution is 4.403 with a probability of less than .050. Thus, the null hypothesis was rejected at the five percent significance level. Therefore, it was

concluded that a significant difference exists between clinical and non-clinical instructors in their use of the generic teaching skills of communication. This data can be further observed in Table F4, Appendix F.

Since the null hypothesis was rejected, the data were further analyzed by comparison of the mean scores. Reported in Table 7, the higher mean scores of the non-clinical instructors (2.05) as compared to that of the clinical instructors (1.78) suggest clinical instructors rate themselves more positively than non-clinical instructors in their ability to use the generic teaching skill of communication.

TABLE 7.--Total Group Mean Scores on Communication Skills.

| | No. | % | Mean Scores* |
|--------------------------|-----------|-----------|--------------|
| Clinical Instructors | 45 | 35 | 1.78 |
| Non-clinical Instructors | <u>83</u> | <u>65</u> | 2.05 |
| Total | 128 | 100 | |

*Extracted from Table F8, Appendix F, which contains more detailed information.

H₀3: There is no difference between ratings by clinical and non-clinical instructors of the importance of the generic teaching skill of maintaining attending behavior.

A two-way analysis of variance (clinical by non-clinical) was performed on the total group. The analysis showed no significant

differences between the instructors' ratings of the importance of the generic teaching skills of maintaining attending behavior. The critical ratio for the F distribution is 1.448 with a probability of less than .225. Thus, the null hypothesis was not rejected at the five percent significance level. Therefore, it was concluded that no significant difference exists between clinical and non-clinical instructors' ratings of the importance of the generic teaching skill of maintaining attending behavior. These data can be further observed in Table F9, Appendix F.

Table 8 shows the mean scores for the clinical (1.63) and non-clinical (1.67) instructors' ratings for the importance of the generic teaching skill of attending behavior. The closeness of the mean scores of the clinical and non-clinical instructors suggest they place the same importance on the generic teaching skill of maintaining attending behavior.

TABLE 8.--Total Group Mean Scores for Importance Ratings of Attending Behavior Skills.

| | No. | % | Mean Scores |
|--------------------------|-----------|-----------|-------------|
| Clinical Instructors | 45 | 35 | 1.63 |
| Non-clinical Instructors | <u>83</u> | <u>65</u> | 1.67 |
| Total | 128 | 100 | |

* Extracted from Table F5, Appendix F, which contains more detailed information.

H₀⁴: There is no difference between ratings by clinical and non-clinical instructors of the importance of the generic teaching skills of communication.

A two-way analysis of variance (clinical by non-clinical) was performed on the total group. The analysis showed no significant differences between the instructors' ratings of the importance of the generic teaching skills of communication. The critical ratio for the F distribution is 2.316 with a probability of less than .131. Thus, the null hypothesis was retained at the five percent significance level. Therefore, it was concluded that no significant difference exists between clinical and non-clinical instructors' ratings of the importance of the generic teaching skills of communication. These data can be further observed in Table F11, Appendix F.

Table 9 shows the mean scores for the clinical (1.73) and non-clinical (1.83) instructors' ratings for the importance of the generic teaching skill, communication. The mean scores suggest that the clinical instructors rated the importance of communication skills more positive than non-clinical instructors.

TABLE 9.--Total Group Mean Scores for the Rating of the Importance of Communication Skills.

| | No. | % | Mean Scores* |
|--------------------------|-----------|-----------|--------------|
| Clinical Instructor | 45 | 35 | 1.73 |
| Non-clinical Instructors | <u>83</u> | <u>65</u> | 1.83 |
| Total | 128 | 100 | |

*Extracted from Table F7, Appendix F, which contains more detailed information.

H₀⁵: There is no difference between observer ratings and self-ratings by clinical and non-clinical instructors in their use of the generic teaching skill of maintaining attending behavior.

A three-way analysis of variance (observer by clinical by non-clinical instructors) was performed. When repeated measures on the observer factor were used to test the hypothesis, no significant effect was found for the observer factor. However, the critical ratio for the F distribution is 2.007, with a probability of less than .174. Thus, Primary Hypothesis 5 was not rejected. These data can be further observed in Table F2, Appendix F.

Table 10 shows the mean scores for the observer was lower (1.73) than that of the clinical and non-clinical instructors (1.87). This suggests that instructors (clinical and non-clinical) rate themselves higher as compared to the rating by the observer in their use of the generic teaching skills of maintaining attending behavior.

TABLE 10.--Total Group Mean Scores on Maintaining Attending Behavior for the Randomly Selected Population.

| | No. | % | Mean Scores |
|---|-----------|-----------|-------------|
| Clinical and Non-clinical Teacher Measures | 24 | 50 | 1.87 |
| Observer Measure | <u>24</u> | <u>50</u> | 1.73 |
| Total | 48 | 100 | |

*Extracted from Table F1, Appendix F, which contains more detailed information.

H₀6: There is no difference between observer ratings and self-ratings by clinical and non-clinical instructors in their use of the generic teaching skill of communication.

A three-way analysis of variance (observer by clinical by non-clinical instructors) was performed. When repeated measures on the observer factor were used to test the hypothesis, there was no significant interaction affect. However, the critical ratio for the F distribution is 13.049 with a probability of less than .002. Thus, the obtained value leads to the rejection of the null hypothesis at the five percent significance level. Therefore, it was concluded that a significant difference exists between observer ratings and instructor ratings of the generic teaching skill of communication. These data can be further observed in Table F4, Appendix F.

Since the null hypothesis was rejected, the data was further analyzed by comparison of the mean scores of the observer and instructors. Table 11 reveals a higher mean score (1.95) for instructors than that of the observer (1.57). This suggests that

TABLE 11.--Total Group Mean Scores on Communication Skills from the Randomly Selected Population.

| Instructor Measure | No. | % | Mean Scores* |
|---------------------------|-----------|-----------|--------------|
| Clinical and Non-clinical | 24 | 50 | 1.95 |
| Observer Measure | <u>24</u> | <u>50</u> | 1.57 |
| Total | 48 | 100 | |

*Extracted from Tables F3, Appendix F, which contains more detailed information.

the observer rated the instructors more positively than the instructors rated themselves in the generic teaching skill, communications.

Secondary Hypotheses

The secondary hypotheses tested in the study are as follows:

- H_{07} : There is no difference between self-ratings by clinical and non-clinical instructors in their use of the generic teaching skill of maintaining attending behavior from the three secondary schools.

A three-way analysis of variance (clinical by non-clinical by school) was performed on the total group. The analysis showed no significant difference between the instructors' ratings from the three secondary schools (Everett, French, and Gardner) in the use of the generic teaching skill, maintaining attending behavior. The critical ratio for the F distribution is .276 with a probability of less than .762. Thus, the null hypothesis was not rejected at the five percent significance level. Therefore, it was concluded that no significant difference exists between clinical and non-clinical instructors from the three secondary schools. These data can be further observed in Table F2, Appendix F.

Table 12 shows the mean scores for the instructors' ratings for the generic teaching skill of maintaining attending behavior from the three secondary schools: Everett (1.89), French (1.96), and Gardner (1.96). The mean scores suggest that instructors from

Everett rated themselves more positively in their use of the generic teaching skill of maintaining attending behavior.

TABLE 12.--Total Group Mean Scores on Maintaining Attending Behavior from the Entire Population of the Three Secondary Schools.

| Secondary Schools | No. | % | Mean Scores* |
|---------------------|-----------|-----------|--------------|
| Everett High | 50 | 39 | 1.89 |
| French Junior High | 41 | 32 | 1.96 |
| Gardner Junior High | <u>37</u> | <u>29</u> | 1.96 |
| Total | 128 | 100 | |

* Extracted from Table F6, Appendix F, which contains more detailed information.

H₀8: There is no difference between self-ratings by clinical and non-clinical instructors in their use of the generic teaching skills of communication from the three secondary schools.

A three-way analysis of variance (clinical by non-clinical by school) was performed on the total group. The analysis showed no significant difference between the instructors' self-ratings in their use of the generic teaching skills, communications, from the three secondary schools (Everett, French, and Gardner). The critical ratio for the F distribution is .428 with a probability of less than .658. Thus, the null hypothesis was not rejected at the five percent significance level. Therefore, it was concluded that no significant

difference exists between clinical and non-clinical instructors from the three secondary schools (Everett, French, and Gardner) in their use of the generic teaching skill of communications. These data can be further observed in Table F4, Appendix F.

Table 13 shows the mean scores for the instructors' ratings for the generic skill of communication from the three secondary schools; Everett (1.88), French (2.00), and Gardner (2.01). Even though the hypothesis was retained, the mean scores suggest that Everett instructors rated themselves more positively than the two junior high schools in their use of the generic teaching skill of communication.

TABLE 13.--Total Group Mean Scores on Communication Skills from the Entire Population of the Three Secondary Schools.

| Secondary Schools | No. | % | Mean Scores* |
|---------------------|-----------|-----------|--------------|
| Everett High | 50 | 39 | 1.88 |
| French Junior High | 41 | 32 | 2.00 |
| Gardner Junior High | <u>37</u> | <u>29</u> | 2.01 |
| Total | 128 | 100 | |

* Extracted from Table F3, Appendix F, which contains more detailed information.

- H₀⁹: There is no difference between ratings by clinical and non-clinical instructors of the importance of the generic teaching skill of maintaining attending behavior from the three secondary schools.

A two-way analysis of variance (school by clinical and non-clinical) was performed on the total group. The analysis showed no significant differences between the instructors' ratings of the importance of the generic teaching skill of maintaining attending behavior from the three secondary schools (Everett, French, and Gardner). The critical ratio for the F distribution is .168 with a probability of less than .845. Thus, the null hypothesis was not rejected at the five percent significance level. These data can be further observed in Table F9, Appendix F.

Table 14 shows the mean scores for the instructors' ratings of the importance of the generic teaching skill of maintaining attending behavior from the three secondary schools: Everett (1.73),

TABLE 14.--Total Group Mean Scores for the Rating of the Importance Given to Attending Behavior of the Entire Population.

| Secondary School | No. | % | Mean Scores* |
|---------------------|-----------|-----------|--------------|
| Everett High | 50 | 39 | 1.73 |
| French Junior High | 41 | 32 | 1.60 |
| Gardner Junior High | <u>37</u> | <u>29</u> | 1.63 |
| Total | 128 | 100 | |

* Extracted from Table F5, Appendix F, which contains more detailed information.

French (1.60) and Gardner (1.63). Even though the hypothesis was retained, these mean scores suggest that Everett instructors rated the importance of the generic teaching skill of attending behavior more positively than French and Gardner.

H₀¹⁰: There is no difference between ratings by clinical and non-clinical instructors of the importance of the generic teaching skill of communication from the three secondary schools.

A two-way analysis of variance (school by clinical and non-clinical) was performed on the total group. The analysis showed no significant differences between the instructors' ratings of the importance of the generic teaching skills of communication from the three secondary schools (Everett, French, and Gardner). The critical ratio for the F distribution is .328 with a probability of less than .721. Thus, the null hypothesis was not rejected at the five percent significance level. These data can be further observed in Table F11, Appendix F.

Table 15 shows the mean scores of the instructors' ratings for the importance of the generic teaching skill communication, from the three secondary schools: Everett (1.86), French (1.77), and Gardner (1.74). These mean scores suggest that Everett rated the importance of the generic teaching skill of communication more positively than French and Gardner.

TABLE 15.--Total Group Mean Scores for the Rating of the Importance Given to Communication Skills of the Entire Population.

| Secondary School | No | % | Mean Scores* |
|---------------------|-----------|-----------|--------------|
| Everett High | 50 | 39 | 1.86 |
| French Junior High | 41 | 32 | 1.77 |
| Gardner Junior High | <u>37</u> | <u>29</u> | 1.74 |
| Total | 128 | 100 | |

*Extracted from Table F7, Appendix F, which contains more detailed information.

Summary

This chapter presented the composition of the study and a descriptive analysis of the population, their sex, age, academic degrees earned, number of years taught and subjects taught. Six primary hypotheses were tested to determine if differences between the perceived use and importance of the generic teaching skills were related to the three dependent variables: (1) self-ratings, (2) observer ratings, and (3) importance ratings. Four secondary hypotheses were tested to determine if differences between instructors' self-ratings and observer ratings were related to schools in which they were teaching.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of Chapter V is to summarize the study, draw conclusions based on the study, and make recommendations for further research.

Summary

The primary purpose of this study was to investigate the perceived use of selected generic teaching skills, and observed classroom behavior of secondary clinical and non-clinical instructors in the Lansing School District, and to determine the influence of in-service education on classroom instructors' behavior regarding generic teaching skills. Specifically, the primary purposes of this study were to determine the following:

1. If there is a relationship between self ratings by clinical and non-clinical instructors in their use of the generic teaching skill of maintaining attending behavior.
2. If there is a relationship between self ratings by clinical and non-clinical instructors in their use of the generic teaching skills in communication.
3. If there is a relationship between the ratings by clinical and non-clinical instructors of the importance of the generic teaching skills of maintaining attending behavior.
4. If there is a relationship between ratings by clinical and non-clinical instructors of the importance of the generic teaching skills in communication.

5. If there is a relationship between observer ratings and self ratings by clinical and non-clinical instructors in their use of the generic teaching skill of maintaining attending behavior.
6. If there is a relationship between observer ratings and self ratings by clinical and non-clinical instructors in their use of the generic teaching skill in communication.
7. If there is a relationship between self ratings by clinical and non-clinical instructors in their use of the generic teaching skills of maintaining attending behavior from the three secondary schools.
8. If there is a relationship between self ratings by clinical and non-clinical instructors in their use of the generic teaching skills of communication from the three secondary schools.
9. If there is a relationship between rating by clinical and non-clinical instructors of the importance of the generic teaching skills of maintaining attending behavior from the three secondary schools.
10. If there is a relationship between ratings by clinical and non-clinical instructors of the importance of the generic teaching skills in communication from the three secondary schools.

To test the hypotheses of this study, two groups of teachers were studied:

1. A group of forty-five secondary teachers who received 14-18 clock hours of inservice training from the MSU-LSD POINTE program.
2. A group of eighty-three secondary teachers who did not receive 14-18 clock hours inservice training from the MSU-LSD POINTE program.

In this phase of the study statistical analyses were made on the data of the study. The first stage involved an analysis of the teachers' background. The second stage was to test and analyze six primary hypotheses to determine relationships between selected independent variables and instructors' perceived use of generic

teaching skills. The third stage was to test and analyze four secondary hypotheses to determine differences between two independent and three dependent variables.

The multivariate (three-way, two-way) analysis of variance was performed to determine significant differences between the independent and dependent variables.

Descriptive Analysis of the Population

1. There were more male non-clinical instructors than male clinical instructors. Also there were more female non-clinical instructors than female clinical instructors.
2. The majority of instructors in both groups were in the 36-45 age group and the 26-35 age group.
3. More of the instructors had masters degrees than any of the other academic degrees.
4. There were more instructors in both groups who had 11-15 years of teaching experience.
5. There were more instructors in both groups who taught mathematics and language arts than any of the other subjects.

Primary Hypotheses

Tests were made of the null hypotheses of the study and were accepted or rejected on the basis of the data collected.

- H_01 : There is no difference between self-ratings by clinical and non-clinical instructors in their use of the generic teaching skill of maintaining attending behavior.
- H_02 : There is no difference between self-ratings by clinical and non-clinical instructors in their use of the generic teaching skill of communication.

The multivariate analysis did not support Primary Hypotheses 1 and 2. The analysis showed a significant difference between the clinical and non-clinical instructors. When comparing mean scores, clinical instructors rated themselves more positively than non-clinical instructors in their ability to use skills in maintaining attending behavior and communication.

H₀3: There is no difference between ratings by clinical and non-clinical instructors of the importance of the generic teaching skill of maintaining attending behavior.

H₀4: There is no difference between ratings by clinical and non-clinical instructors of the importance of the generic teaching skill of communication.

The multivariate analysis did support Primary Hypotheses 3 and 4. The analysis indicates that no significant differences exist between clinical and non-clinical ratings of the importance of the generic teaching skills of maintaining attending behavior and communication. When comparing the mean scores, the results suggest that the closeness of the ratings by the clinical and non-clinical instructors indicate that they place the same importance on maintaining attending behavior. However, the clinical instructors rated the importance of communication skills more positively than non-clinical instructors.

H₀5: There is no difference between observer ratings and self-ratings by clinical and non-clinical instructors in their use of the generic teaching skill of maintaining attending behavior.

H₀6: There is no difference between observer ratings and self-ratings by clinical and non-clinical instructors in their use of the generic teaching skill of communication.

The multivariate analysis did support Primary Hypotheses 5 and 6. There was no significant effect found for the observer factor where the statistical test was performed to determine differences between observer ratings and self-ratings of the generic teaching skills of maintaining attending behavior. However, the multivariate analysis did not support Primary Hypothesis 6. There was a significant difference between observer ratings and self-ratings of clinical and non-clinical instructors in their use of communication skills. The mean scores suggest that instructors' rating and the observer ratings were about equal in their ability to maintain attending behavior. However, the observer rated the instructors more positively than the instructors rated themselves in the generic teaching skill, communication.

Secondary Hypotheses

The secondary hypotheses tested in the study are as follows:

- H₀7: There is no difference between self-ratings by clinical and non-clinical instructors in their use of the generic teaching skill of maintaining attending behavior from the three secondary schools.
- H₀8: There is no difference between self-ratings by clinical and non-clinical instructors in their use of the generic teaching skills of communication from the three secondary schools.

The multivariate analysis did support Secondary Hypotheses 7 and 8. No significant difference exists between instructors' ratings of their ability to maintain attending behavior and use communication skills from three secondary schools. Even though the hypotheses were retained, the mean scores suggest that instructors from Everett rate their ability to use skills in maintaining attending behavior and communication more positively than French and Gardner.

H₀⁹: There is no difference between ratings by clinical and non-clinical instructors of the importance of the generic teaching skill of maintaining attending behavior from the three secondary schools.

H₀¹⁰: There is no difference between ratings by clinical and non-clinical instructors of the importance of the generic teaching skill of communication from the three secondary schools.

The multivariate analysis did support Secondary Hypotheses 9 and 10. The analysis showed no significant differences between the instructors' ratings of the importance of the generic teaching skills of maintaining attending behavior and communication. However, the mean scores revealed that Everett instructors rate the importance of the generic teaching skills more positively than French and Gardner.

Conclusions

Based on the findings of this study the following conclusions have been drawn.

Population

1. The population of this study included more male than female teachers. It can be assumed that a large percentage of the population in the secondary school from which the sample was drawn are males.
2. The ages of the teachers appeared to be concentrated in the 36-45 age group and 26-35 age group.
3. The academic degrees of most of the teachers did not go beyond the masters degree level.
4. More teachers had 11-15 years of teaching experience. It appears that a large percentage of the population in the secondary schools from which the sample was drawn have been teaching for 11-15 years.

5. More teachers taught mathematics and language arts. This suggests that since language arts and mathematics are required subjects at the secondary level that there are more teachers teaching these subjects than any of the other subjects at this level.

Primary Hypotheses

6. Inservice education offered by the Michigan State University and Lansing School District POINTE Program influence the use of generic teaching skills of classroom teachers.
7. Teachers who received inservice training and those who did not are similar in their perception of the importance of the generic teaching skills to the teaching process.
8. There was significant agreement between teacher and observer ratings regarding the use of generic teaching skills in maintaining attending behavior.
9. There was disagreement between instructor and observer ratings regarding the use of communication skills. The mean scores in Chapter IV, Table 11, suggest that the observer ratings were more likely than the instructors' ratings to indicate that the inservice training had a positive effect.

Secondary Hypotheses

10. The secondary school in which the teachers taught did not make a significant difference in their use of generic teaching skills.
11. All respondents perceive generic teaching skills as being important to the teaching process. However, teachers at the senior high school perceived the importance of generic teaching skills more positively to the teaching process than the junior high schools.

Recommendations for Further Research

The study presented is worthwhile in that it examined the outcomes of two groups of classroom instructors' perception and observed classroom generic teaching skills as a result of inservice activities. It should serve as a building block for meaningful research to be conducted in the future. As a result of this study, it is the writer's opinion that it should provide the challenge for further examination as to how to better prepare secondary classroom instructors to assess and use generic teaching skills more effectively. Suggestions that might be incorporated in future research are as follows:

1. A study of this kind could be conducted with a stratified random sample of classroom instructors in relation to selected independent variables.
2. Further studies could include race, sex, and subjects taught.
3. A study should be developed to determine the extent to which effective use of generic teaching skills influence professional job promotion.
4. A study could be conducted to include elementary clinical and non-clinical instructors.
5. An investigation should be conducted to determine student teaching perception of the use of generic teaching skills by clinical instructors.
6. An investigation should be conducted to determine the use of generic teaching skills by clinical and non-clinical instructors in a classroom teaching situation using Video-Tape.
7. A study might be made which compares the impact of the inservice described in this study, with the impact of some other type of inservice activity.

8. An investigation should be conducted to determine the perception of administrators responsible for teacher evaluation, on the use of generic teaching skills by clinical and non-clinical instructors.

The above suggestions are by no means inclusive. Further research into the value of generic teaching skills and inservice education would be helpful to educators.

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APPENDICES

APPENDIX A

RESEARCH STUDY REQUEST

Return to:
Doris Walker
Office of Evaluation Services
Lansing School District
500 W. Lenawee
Lansing, MI 48933

J 9/80

RESEARCH STUDY REQUEST

Office of Evaluation Services
Lansing School District

1. Individual conducting study:

Name Joyce Jay Phone No. 374-4551
Professional title, if any Assistant Principal
Address 3900 Stabler Street, Lansing, MI. 48910

2. Institution, organization, or agency with which individual is associated, if any:

Everett High School

3. Reason for study:

College or university course requirement _____
Partial fulfillment for Master's degree _____
Partial fulfillment for Doctor's degree XX
Other _____

If study is being conducted for course requirement or for a degree, please provide course instructor's name or name of major advisor.

Name Dr. George Myers
Full Title Chairman of Committee

4. Title of study An Exploratory Study of Selected Generic Teaching Skills and Inservice Education as perceived by clinical and non-clinical instructors in selected secondary schools in Lansing, MI.

5. Statement of hypothesis, and/or objective(s) of study.

The primary purpose of this study is to investigate perceived and observed teacher behavior of the use of selected generic teaching skills and to determine the influence of inservice training on teacher classroom behavior.

(over)

ATTACHMENT IN RESPONSE TO QUESTION #13:

As a result of the demand for accountability in education in the past few years, Competency-Based Teacher Education has become almost a household phrase in education. Optional teacher education programs are being designed and implemented almost daily. The POINTE Program at Michigan State University is an example. Many of these programs require the participation of university faculty, preservice and inservice teachers, local school administrators, students and community people.

The design of these programs requires identification of teacher competencies for preservice and inservice teachers. Many of the inservice teachers supervise the activities of student teachers at their local schools. The inservice component of the POINTE program seems to suggest improved classroom teacher performance in the areas of generic teaching skills, observation, and evaluation of teacher competencies. There seems to be little or no empirical research to support this notion. Therefore, this study is important for the following reasons:

1. Little emphasis has been placed on the importance of generic teaching skills and how they are utilized by clinical instructors in the Lansing School District.
2. There is a need to determine how clinical and non-clinical instructors use generic teaching skills.
3. There is a need to determine whether clinical instructors experience significant professional growth and development as a result of the inservice received from participation in the POINTE program.
4. There is a need to determine if the POINTE inservice component provides clinical instructors with the capabilities to appraise their own teaching skills.

APPENDIX B

SURVEY LETTER

APPENDIX B

Dear Colleague:

It is imperative that we as educators seek every opportunity to strive for excellence in teaching in an effort to better prepare our students for the many challenging pursuits within their lifetime and also provide teachers, counselors, and administrators opportunities for continued professional growth.

It is the purpose of this investigation to gather and analyze data concerning professional development activities and the use of generic teaching skills.

In order to accomplish this purpose your cooperation in responding to this questionnaire will be used solely for program development purposes and not for evaluating you as an individual teacher, but no doubt the feedback will be equally as useful to you in terms of continued professional growth.

You will be receiving the questionnaire from your building cluster consultant on Friday, December 12. Please complete it and return it by Tuesday, December 16.

Again, your help and cooperation are genuinely appreciated.

Thank you,

Joyce Jay

JJ/ms

APPENDIX C

SURVEY QUESTIONNAIRES

APPENDIX C

TEACHER SURVEY INFORMATION

TEACHER SURVEY INFORMATION

Please complete the items listed below. If your response is different from any of those provided, please write your response in the space available at the end of each question. All information on this questionnaire will be treated as confidential.

A. BACKGROUND INFORMATION

1. Sex:

_____ Male _____ Female

2. Age Group:

_____ 25 or under _____ 46-55
_____ 26-35 _____ 56 or older
_____ 36-45

3. Highest Academic Degree Earned:

_____ Less than a Bachelor's _____ Ed. Specialist
_____ Bachelor's _____ Ed.D.
_____ Master's _____ Ph.D

4. Number of years you have taught full time at any level:

_____ 1 _____ 4-5 _____ 16-20
_____ 2 _____ 6-10 _____ 21 or more
_____ 3 _____ 11-15

5. What major subject are you teaching? (Such as Accounting, English, History, etc.)

6. What other course(s) are you teaching?

_____ If none, check here: _____

B. PARTICIPATION IN INSERVICE EDUCATION

1. Since 1972, which, if any, of the following selected inservice education activities have you participated in?

| <u>Activity</u> | <u>Frequency of Participation</u> | |
|---|-----------------------------------|------------|
| Completion of the Lansing District's masters program for classroom instruction. | Number of Credits earned: | |
| | _____ None _____ | 25-36 |
| | _____ 1-12 _____ | 37 or more |
| Number of hours completed in Michigan State University - CBTE inservice program for clinical instructors. | _____ 13-24 _____ | |
| | _____ None _____ | 13-18 |
| | _____ 1-6 _____ | 19 or more |
| Number of hours completed in Michigan State University - CBTE inservice program for teachers new to their assignment. | _____ 7-12 _____ | |
| | _____ None _____ | 13-18 |
| | _____ 1-6 _____ | 19 or more |
| Number of CBTE Student Teachers you have supervised. | _____ 7-12 _____ | |
| | _____ None _____ | 1-12 |
| | _____ 1-6 _____ | 13 or more |

2. To what extent do you feel you are given encouragement by the school administration to improve your generic teaching skills?

_____ Strong _____ Mild _____ None

ATTENDING BEHAVIOR QUESTIONS

INSTRUCTIONS: Please read each statement carefully and respond to each item in the Survey. Answer the two questions (column A and B) which follow each knowledge or skill area listed below. Circle the number in the column which best expresses your view.

A. To what extent is this skill/knowledge essential to success in maintaining attending behavior?

B. How would you rate your ability to consistently apply this knowledge/skill in your classroom and teaching efforts?

| KNOWLEDGE/SKILL | A. To what extent is this skill/knowledge essential to success in maintaining attending behavior? | | | | B. How would you rate your ability to consistently apply this knowledge/skill in your classroom and teaching efforts? | | | |
|---|---|-----------|-------------------|---------------|---|------|------|------|
| | Crucial | Important | Limited Relevance | Non-Essential | Excellent | Good | Fair | Poor |
| 1. Identifying students who are not attending to instruction. | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 2. Responding to non-attending behavior before it distracts the class. | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 3. Maintaining the attention of the entire group. | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 4. Providing learning activities of a variety of levels which matches the skill levels of all the students in your class. | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 5. Matching the pace and momentum of your instruction to the interest level of your students. | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 6. Matching the pace and momentum of your instruction to the ability level of your students. | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 7. Consistently maintaining the involvement of students in all of the classroom learning activities. | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 8. Recapturing the interest of students who are not attending to instruction. | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 9. Selecting alternate instructional techniques when group attendance begins to lag. | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 10. Recapturing the attendance of the group after it has been disrupted. | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |

Page Two

A. To what extent is this skill/knowledge essential to success in maintaining attending behavior?

B. How would you rate your ability to consistently apply this knowledge/skill in your classroom and teaching efforts?

| KNOWLEDGE/SKILL | A | | | | | B | | | |
|--|---------|-----------|-------------------|---------------|--|-----------|------|------|------|
| | Crucial | Important | Limited Relevance | Non-Essential | | Excellent | Good | Fair | Poor |
| 11. Responding to a students non-attending behavior in a way which elicits a positive response from the student and renews attending behavior. | 1 | 2 | 3 | 4 | | 1 | 2 | 3 | 4 |
| 12. Responding to a group disruption in a way which elicits a positive response from the group and renewed attendance. | 1 | 2 | 3 | 4 | | 1 | 2 | 3 | 4 |
| 13. Identifying instances when the group is no longer actively attending to instruction. | 1 | 2 | 3 | 4 | | 1 | 2 | 3 | 4 |
| 14. On the whole, how well do you maintain the attending behavior to instruction of students in your classroom. | 1 | 2 | 3 | 4 | | 1 | 2 | 3 | 4 |
| 15. Identifying students who cause classroom disruptions | 1 | 2 | 3 | 4 | | 1 | 2 | 3 | 4 |

COMMUNICATION QUESTIONS

A. To what extent is this type of question/activity essential to success in classroom teaching?

B. How would you rate your ability to consistently apply this knowledge/skill in your classroom and teaching efforts?

| KNOWLEDGE/SKILL | A. | | | | B. | | | |
|---|---------|-----------|-------------------|---------------|-----------|------|------|------|
| | Crucial | Important | Limited Relevance | Non-Essential | Excellent | Good | Fair | Poor |
| 1. Asking knowledge questions involving the recall of specific facts, terms, methods, procedures, theories, etc. to which one has previously been exposed. | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 2. Asking Comprehension questions involving the grasping of the meaning of material; the understanding and internalization of it. | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 3. Asking application questions involving the use of known rules, methods, concepts, principles, laws and theories with new data or in unfamiliar but concrete situations. | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 4. Asking analysis questions referring to the ability to break down materials into its component parts so that its organizational structure may be understood. | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 5. Asking synthesis questions that refers to the ability to put parts together to form a new whole. | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 6. Asking evaluation questions concerned with the ability to judge the value of materials and justify that judgement with logical reasoning. | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 7. Including many examples of each of these question techniques in teaching a classroom lesson. | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 8. Logical development of your questioning technique in presenting classroom lesson. Does your questioning flow from simple knowledge questions, to difficult synthesis and evaluation questions? | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 9. Organizing instructional units in a way to permit you to assess each student's level of understanding the material? | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |

Page Four

A. To what extent is this type of question/activity essential to success in classroom teaching?

B. How would you rate your ability to consistently apply this knowledge/skill in your classroom and teaching efforts?

| KNOWLEDGE/SKILL | A | | | | B | | | |
|--|---------|-----------|-------------------|---------------|-----------|------|------|------|
| | Crucial | Important | Limited Relevance | Non-Essential | Excellent | Good | Fair | Poor |
| 10. Identifying lessons which must be retaught to the entire class or selected students? | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 11. Encouraging elaborated, thoughtful, responses from students instead of one-word or very short answers. | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 12. Responding to student answers which encourage rather than inhibit the students future responses. | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |

APPENDIX D

CRITERIA FOR SELECTION OF THE OBSERVER

APPENDIX D

CRITERIA FOR SELECTION OF THE OBSERVER

The criteria for selection of the observer were based on professional qualifications and training activities. These items included:

Professional Qualifications

1. Science teachers for 15 years.
2. Department chairperson for 4 years.
3. Ph.D. in Teacher Education and Administration
4. Supervisor of student teachers
5. Instructor at the community college level for 6 years
6. Principal of summer school at the Junior High level for 4 years

Training

1. Several hours of inservice training in Competency-Based Teacher Education.
2. Graduate assistant in Supervision of Student Teachers and Program Development, hired to work with various program activities.

APPENDIX E

INSTRUMENTS

APPENDIX E ATTENDING BEHAVIOR

Subject or Class _____ Date and Time _____ Clinical _____
Non-Clinical _____

DIRECTIONS: Indicate examples of any student behavior which appears to be negative, uninvolved, disruptive, or exceptionally positive. If there are no obvious examples to record during any one 5-minute period, briefly describe the general activities of the students during that time.

| Time | Describe Individual Student or Small Group Behavior | Learning Climate (short comment) | Percent of Class Attending | Response by Teacher (sugg: Flanders) | Comments |
|------|---|----------------------------------|----------------------------|--------------------------------------|----------|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Any further comments on back

Observer _____

OBSERVATION INSTRUMENT

Questioning Techniques _____

Teacher No. _____

Class or Subject _____ Date and Time _____

No. of Students _____

Strategy or Type of Lesson _____

Clinical _____
Non-Clinical _____

DIRECTIONS: Write in the questions to be asked during a teacher led discussion and fill in the additional columns as related to each question.

| | |
|------------------|---------------|
| 1. Knowledge | 4. Analysis |
| 2. Comprehension | 5. Synthesis |
| 3. Application | 6. Evaluation |

| List of Questions Record 10 questions in sequence | Quality of Question* | | Student Responses | | Type | | | | | |
|--|----------------------|---------|-------------------|---------------|------|---|---|---|---|---|
| | clear | unclear | appropriate | inappropriate | 1 | 2 | 3 | 4 | 5 | 6 |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

*Quality - does an inappropriate response by student reflect an unclear question?

On back of sheet - Observer could add a comment section for effectiveness of presentation. Did questions lead students where the instructor wanted them to go? Observer _____

Dear Colleague:

I would like to take this opportunity to express my sincere appreciation for your time and cooperation in helping me to collect information by responding to my questionnaire on "The Use of Generic Teaching Skills by Clinical and Non-Clinical Instructors," which I am conducting as a part of my dissertation research.

A special thanks goes to the selected group of teachers who were willing to let me collect information by observing their classes.

Sincerely,

Joyce Jay

APPENDIX F

TABLES OF MULTIVARIATE ANALYSIS OF VARIANCE

APPENDIX F

TABLES OF MULTIVARIATE ANALYSIS OF VARIANCE

Table F1. Effects of Trained, Non-Trained (Clinical and Non-Clinical), and School or Skill Levels for Maintaining Attending Behavior for the Randomly Population (three-way analysis of variance)

| School | Clinical Instructors | | | Non-Clinical Instructors | | | Total Group | | |
|--------------------|-------------------------|-----------|-----|-----------------------------|-----------|-----|----------------|-----------|-----|
| | N | \bar{X} | SD | N | \bar{X} | SD | N | \bar{X} | SD |
| EVERETT | 4 | * | | 4 | * | | 8 | | |
| Teacher Measure | | 1.88 | .19 | | 1.63 | .29 | | 1.76 | .26 |
| Observer Measure | | 1.72 | .36 | | 1.83 | .12 | | 1.78 | .26 |
| Average Measure | | 1.80 | .19 | | 1.73 | .18 | | 1.77 | .17 |
| FRENCH | 4 | * | | 4 | | | 8 | | |
| Teacher Measure | | 1.75 | .31 | | 2.20 | .25 | | 1.98 | .35 |
| Observer Measure | | 1.52 | .29 | | 1.90 | .56 | | 1.71 | .46 |
| Average Measure | | 1.63 | .15 | | 2.05 | .34 | | 1.84 | .33 |
| GARDNER | 4 | | | 4 | | | 8 | | |
| Teacher Measure | | 1.55 | .30 | | 2.22 | .39 | | 1.88 | .48 |
| Observer Measure | | 1.55 | .06 | | 1.83 | .48 | | 1.69 | .35 |
| Average Measure | | 1.55 | .18 | | 2.03 | .13 | | 1.79 | .29 |
| TOTAL GROUP | 12 | | | 12 | | | 24 | | |
| Teacher Measure | | 1.73 | .28 | | 2.02 | .40 | | 1.87 | .37 |
| Observer Measure | | 1.59 | .26 | | 1.86 | .39 | | 1.73 | .35 |
| Average Measure | | 1.66 | .19 | | 1.94 | .26 | | 1.80 | .26 |

Table F2. Analysis of Variance Comparing Skills in Maintaining Attending Behavior for Randomly Selected Population--Within Subjects Design¹

| Source | SS | DF | MS | F | α |
|--------------------------------------|-------|----|-------|--------|----------|
| Between Subjects Variance | | | | | |
| Group (Clinical versus Non-clinical) | .908 | 1 | .908 | 10.430 | .005* |
| School | .048 | 2 | .024 | .276 | .762 |
| Group x School | .707 | 2 | .354 | 4.064 | .035* |
| Between Subject Error | 1.566 | 18 | .087 | --- | --- |
| Total Between Subject Variance | 3.229 | 23 | 0.140 | --- | --- |
| Within Subject Variance | | | | | |
| Observer (Teacher versus Outside) | .260 | 1 | .260 | 2.007 | .174 |
| Observer x School | .172 | 2 | .086 | .665 | .526 |
| Observer x Group | .002 | 1 | .002 | .018 | .895 |
| Observer x Group x School | .284 | 2 | .142 | 1.094 | .356 |
| Within Subject Error | 2.333 | 18 | .130 | --- | --- |
| Total Within Subject Variance | 3.051 | 24 | .127 | --- | --- |
| Total Variance | 6.280 | 47 | .134 | --- | --- |

¹Calculated using the MANOVA subroutine of SPSS.

*Significant at .05 level.

Table F3. Communication Skill Levels for the Randomly Selected Population

| School | Clinical Instructors | | | Non-Clinical Instructors | | | Total Group | | |
|--------------------|-------------------------|-----------|-----|-----------------------------|-----------|-----|----------------|-----------|-----|
| | N | \bar{X} | SD | N | \bar{X} | SD | N | \bar{X} | SD |
| EVERETT | 4 | | | 4 | | | 8 | | |
| Teacher Measure | | 1.81 | .26 | | 2.13 | .63 | | 1.97 | .48 |
| Observer Measure | | 1.75 | .34 | | 1.60 | .28 | | 1.68 | .30 |
| Average Measure | | 1.78 | .23 | | 1.86 | .32 | | 1.82 | .26 |
| FRENCH | 4 | | | 4 | | | 8 | | |
| Teacher Measure | | 1.88 | .39 | | 2.04 | .28 | | 1.96 | .32 |
| Observer Measure | | 1.42 | .30 | | 1.60 | .36 | | 1.51 | .32 |
| Average Measure | | 1.65 | .29 | | 1.82 | .16 | | 1.73 | .24 |
| GARDNER | 4 | | | 4 | | | 8 | | |
| Teacher Measure | | 1.67 | .30 | | 2.21 | .34 | | 1.94 | .41 |
| Observer Measure | | 1.44 | .24 | | 1.58 | .36 | | 1.51 | .29 |
| Average Measure | | 1.55 | .25 | | 1.90 | .08 | | 1.72 | .25 |
| TOTAL GROUP | 12 | | | 12 | | | 24 | | |
| Teacher Measure | | 1.78 | .30 | | 2.13 | .41 | | 1.95 | .39 |
| Observer Measure | | 1.53 | .31 | | 1.60 | .30 | | 1.57 | .30 |
| Average Measure | | 1.66 | .25 | | 1.86 | .19 | | 1.76 | .24 |

Table F4. Analysis of Variance Comparing Communication Skills for Randomly Selected Population--Within Subject Design¹

| Source | SS | DF | MS | F | α |
|---------------------------------------|-------|----|-------|--------|----------|
| Between Subject Variance | | | | | |
| School | .095 | 2 | .047 | .428 | .658 |
| Group (Clinical versus Non-clinical) | .487 | 1 | .487 | 4.403 | .050* |
| Group x School | .140 | 1 | .070 | .629 | .544 |
| Between Subject Error | 1.990 | 18 | .111 | --- | --- |
| Total Between Subject Variance | 2.712 | 23 | .118 | --- | --- |
| Within Subject Variance | | | | | |
| Observer (Teacher versus Outside) | 1.815 | 1 | 1.815 | 13.049 | .002* |
| Observer x School | .058 | 2 | .030 | .207 | .815 |
| Observer x Group | .231 | 1 | .231 | 1.664 | .213 |
| Observer x Group x School | .136 | 2 | .068 | .488 | .622 |
| Within Subject Error | 2.503 | 18 | .139 | --- | --- |
| Total Within Subject Variance | 4.743 | 24 | .198 | --- | --- |
| Total Variance | 7.455 | 47 | .159 | --- | --- |

¹Calculated using the MANOVA subroutine of SPSS.

*Significant at the .05 level.

**Table F5. Importance Ratings Given to Attending Behavior Skills
(Entire Group)**

| School | Clinical Instructors | | | Non-Clinical Instructors | | | Total Group | | |
|-------------|-------------------------|-----------|-----|-----------------------------|-----------|-----|----------------|-----------|-----|
| | N | \bar{X} | SD | N | \bar{X} | SD | N | \bar{X} | SD |
| Everett | 23 | 1.67 | .32 | 27 | 1.78 | .28 | 50 | 1.73 | .30 |
| French | 8 | 1.53 | .21 | 33 | 1.61 | .31 | 41 | 1.60 | .29 |
| Gardner | 14 | 1.61 | .38 | 23 | 1.64 | .33 | 37 | 1.63 | .34 |
| Total Group | 45 | 1.63 | .32 | 83 | 1.67 | .31 | 128 | 1.66 | .31 |

Table F6. Skill Ratings Given for Attending Behavior (Entire Group)

| School | Clinical Instructors | | | Non-Clinical Instructors | | | Total Group | | |
|-------------|-------------------------|-----------|-----|-----------------------------|-----------|-----|----------------|-----------|-----|
| | N | \bar{X} | SD | N | \bar{X} | SD | N | \bar{X} | SD |
| Everett | 23 | 1.91 | .23 | 27 | 1.87 | .43 | 50 | 1.89 | .13 |
| French | 8 | 1.78 | .29 | 33 | 2.01 | .46 | 41 | 1.96 | .19 |
| Gardner | 14 | 1.77 | .32 | 23 | 2.08 | .31 | 37 | 1.96 | .12 |
| Total Group | 45 | 1.85 | .28 | 83 | 1.98 | .42 | 128 | 1.94 | .38 |

**Table F7. Importance Rating Given to Communication Skills
(Entire Group)**

| School | Clinical Instructors | | | Non-Clinical Instructors | | | Total Group | | |
|-------------|-------------------------|-----------|-----|-----------------------------|-----------|-----|----------------|-----------|-----|
| | N | \bar{X} | SD | N | \bar{X} | SD | N | \bar{X} | SD |
| Everett | 23 | 1.78 | .39 | 27 | 1.93 | .53 | 50 | 1.86 | .22 |
| French | 8 | 1.60 | .20 | 33 | 1.81 | .45 | 41 | 1.77 | .17 |
| Gardner | 14 | 1.72 | .30 | 23 | 1.75 | .42 | 37 | 1.74 | .14 |
| Total Group | 45 | 1.73 | .33 | 83 | 1.83 | .47 | 128 | 1.80 | .43 |

Table F8. Skill Ratings Given to Communication Skills (Entire Group)

| School | Clinical Instructors | | | Non-Clinical Instructors | | | Total Group | | |
|-------------|-------------------------|-----------|-----|-----------------------------|-----------|-----|----------------|-----------|-----|
| | N | \bar{X} | SD | N | \bar{X} | SD | N | \bar{X} | SD |
| Everett | 23 | 1.80 | .32 | 27 | 1.94 | .62 | 50 | 1.88 | .25 |
| French | 8 | 1.77 | .39 | 33 | 2.06 | .51 | 41 | 2.00 | .25 |
| Gardner | 14 | 1.74 | .32 | 23 | 2.17 | .49 | 37 | 2.01 | .22 |
| Total Group | 45 | 1.78 | .32 | 83 | 2.05 | .54 | 128 | 1.96 | .49 |

Table F9. ANOVA Table for Importance Ratings Given to Attending Behavior¹ (Whole Group)

| Source | SS | DF | MS | F | α |
|----------------|--------|-----|------|-------|----------|
| School | .513 | 2 | .256 | 2.625 | .077 |
| Group | .145 | 1 | .145 | 1.488 | .225 |
| Group x School | .033 | 2 | .016 | .168 | .845 |
| Error | 11.909 | 122 | .098 | --- | --- |
| Total | 12.501 | 127 | .099 | --- | --- |

¹Calculated using ANOVA subroutine of SPSS.

Table F10. ANOVA Table for Skill Ratings Given to Attending Behavior (Whole Group)

| Source | SS | DF | MS | F | α |
|----------------|--------|-----|------|-------|----------|
| School | .088 | 2 | .044 | .318 | .728 |
| Group | .475 | 1 | .475 | 3.449 | .066 |
| School x Group | .708 | 2 | .354 | 2.572 | .081 |
| Error | 16.788 | 122 | .138 | --- | --- |
| Total | 18.137 | 127 | .143 | --- | --- |

Table F11. ANOVA Table for Importance Ratings Given to Communication Skills (Entire Group)

| Source | SS | DF | MS | F | α |
|----------------|--------|-----|------|-------|----------|
| School | .481 | 2 | .240 | 1.298 | .277 |
| Group | .429 | 1 | .429 | 2.316 | .131 |
| School x Group | .121 | 2 | .061 | .328 | .721 |
| Error | 22.591 | 122 | .185 | --- | --- |
| Total | 23.495 | 127 | .185 | --- | --- |

Table F12. ANOVA Table for Skill Ratings Given to Communication Skills (Entire Group)

| Source | SS | DF | MS | F | α |
|----------------|--------|-----|-------|-------|----------|
| School | .254 | 2 | .127 | .549 | .579 |
| Group | 1.921 | 1 | 1.921 | 8.318 | .005* |
| School x Group | .387 | 2 | .193 | .838 | .435 |
| Error | 28.177 | 122 | .231 | --- | --- |
| Total | 30.985 | 127 | .244 | --- | --- |

*Significant at .05 level.

**Table F13. Analysis of Variance Table for Outside Observer
Ratings of Attending Behavior Skills
(Random Group)**

| Source | SS | DF | MS | F | α |
|----------------|-------|----|------|-------|----------|
| School | .031 | 2 | .016 | .121 | .887 |
| Group | .409 | 1 | .409 | 3.178 | .091 |
| School x Group | .073 | 2 | .036 | .282 | .758 |
| Error | 2.317 | 18 | .129 | --- | --- |
| Total | 2.829 | 23 | .123 | --- | --- |

**Table F14. Analysis of Variance Table for Self Ratings
of Attending Behavior Skills
(Random Group)**

| Source | SS | DF | MS | F | α |
|----------------|-------|----|------|-------|----------|
| School | .189 | 2 | .095 | 1.077 | .362 |
| Group | .501 | 1 | .501 | 5.697 | .028* |
| School x Group | .918 | 2 | .459 | 5.223 | .016* |
| Error | 1.582 | 18 | .088 | --- | --- |
| Total | 3.190 | 23 | .139 | --- | --- |

*Significant at .05 level.

SS = sums of squares
 DF = degrees of freedom
 MS = mean square
 F = F
 α = probability level

**Table F15. Analysis of Variance Table for Outside Observer
Ratings of Communication Skills
(Random Group)**

| Source | SS | DF | MS | F | α |
|----------------|-------|----|------|------|----------|
| School | .148 | 2 | .074 | .743 | .490 |
| Group | .023 | 1 | .023 | .235 | .634 |
| School x Group | .132 | 2 | .066 | .662 | .528 |
| Error | 1.793 | 18 | .100 | --- | --- |
| Total | 2.097 | 23 | .091 | --- | --- |

**Table F16. Analysis of Variance Table for Self Ratings
of Communication Skills**

| Source | SS | DF | MS | F | α |
|----------------|-------|----|------|-------|----------|
| School | .004 | 2 | .002 | .014 | .987 |
| Group | .695 | 1 | .695 | 4.632 | .045* |
| School x Group | .143 | 2 | .071 | .477 | .629 |
| Error | 2.7 | 18 | .150 | --- | --- |
| Total | 3.541 | 23 | .154 | --- | --- |

*Significant at .05 level.

APPENDIX G

MEDIAN RATINGS GIVEN TO EACH ITEM IN THE FOUR INSTRUMENTS BY GROUP

APPENDIX C

Median Ratings Given to Each Item in the Four Instruments by Group

| Item | Entire Group (N=128) | Entire Clinical Group (N=45) | Entire Non-Clinical Group (N=83) | Random Group Self Obs (N=24) | Random Clinical Group Self Obs (N=12) | Random Non-clinical Group Self Obs (N=12) | Random Group Outside Obs (N=24) | Random Clinical Group Outside Obs (N=12) | Random Non-clinical Group Outside Obs (N=12) |
|--------------------------|----------------------|------------------------------|----------------------------------|------------------------------|---------------------------------------|---|---------------------------------|--|--|
| Attending Importance | | | | | | | | | |
| 1 | 1.389 | 1.333 | 1.422 | 1.250 | 1.100 | 1.500 | | | |
| 2 | 1.310 | 1.365 | 1.283 | 1.250 | 1.100 | 1.500 | | | |
| 3 | 1.798 | 1.768 | 1.813 | 1.833 | 1.500 | 2.056 | | | |
| 4 | 1.769 | 1.696 | 1.807 | 1.714 | 1.667 | 1.750 | | | |
| 5 | 1.789 | 1.696 | 1.830 | 1.767 | 1.750 | 1.786 | | | |
| 6 | 1.562 | 1.604 | 1.537 | 1.500 | 1.357 | 1.643 | | | |
| 7 | 1.838 | 1.840 | 1.837 | 1.962 | 1.667 | 2.214 | | | |
| 8 | 1.829 | 1.839 | 1.824 | 1.813 | 1.643 | 1.944 | | | |
| 9 | 1.892 | 1.935 | 1.860 | 1.857 | 1.875 | 1.833 | | | |
| 10 | 1.547 | 1.646 | 1.488 | 1.423 | 1.357 | 1.500 | | | |
| 11 | 1.652 | 1.619 | 1.667 | 1.423 | 1.500 | 1.357 | | | |
| 12 | 1.721 | 1.524 | 1.795 | 1.500 | 1.357 | 1.667 | | | |
| 13 | 1.818 | 1.732 | 1.860 | 1.714 | 1.500 | 1.875 | | | |
| 14 | 1.753 | 1.732 | 1.765 | 1.714 | 1.357 | 1.944 | | | |
| 15 | 1.280 | 1.182 | 1.347 | 1.250 | 1.100 | 1.500 | | | |
| Attending Skill | | | | | | | | | |
| 1 | 1.669 | 1.724 | 1.631 | 1.733 | 1.500 | 1.889 | 1.832 | 1.750 | 1.929 |
| 2 | 1.788 | 1.759 | 1.807 | 1.853 | 1.875 | 1.833 | 1.767 | 1.500 | 1.944 |
| 3 | 1.942 | 1.958 | 1.930 | 1.971 | 1.900 | 2.071 | 1.750 | 1.500 | 1.929 |
| 4 | 2.037 | 2.043 | 2.034 | 2.038 | 2.071 | 2.000 | 1.833 | 1.750 | 1.900 |
| 5 | 1.930 | 1.939 | 1.924 | 1.938 | 1.875 | 2.000 | 1.750 | 1.750 | 1.750 |
| 6 | 1.878 | 1.883 | 1.875 | 1.967 | 1.833 | 2.056 | 1.667 | 1.643 | 1.700 |
| 7 | 2.019 | 1.983 | 2.043 | 1.808 | 1.667 | 1.929 | 1.500 | 1.250 | 1.833 |
| 8 | 2.131 | 2.074 | 2.170 | 2.056 | 2.000 | 2.125 | 1.767 | 1.643 | 1.875 |
| 9 | 2.082 | 1.968 | 2.181 | 1.900 | 1.786 | 2.167 | 1.889 | 1.944 | 1.833 |
| 10 | 1.843 | 1.760 | 1.893 | 1.857 | 1.357 | 2.100 | 1.423 | 1.100 | 1.833 |
| 11 | 2.077 | 1.984 | 2.154 | 1.929 | 1.833 | 2.100 | 1.938 | 1.667 | 2.100 |
| 12 | 2.051 | 1.966 | 2.112 | 1.864 | 1.929 | 1.750 | 1.944 | 1.833 | 2.056 |
| 13 | 1.803 | 1.817 | 1.957 | 1.900 | 1.750 | 2.071 | 1.786 | 1.667 | 1.875 |
| 14 | 2.008 | 1.768 | 2.189 | 1.722 | 1.357 | 2.250 | 1.500 | 1.250 | 1.786 |
| 15 | 1.470 | 1.365 | 1.541 | 1.357 | 1.167 | 1.700 | 1.875 | 1.900 | 1.833 |
| Communication Importance | | | | | | | | | |
| 1 | 1.821 | 1.768 | 1.849 | 1.767 | 1.643 | 1.875 | | | |
| 2 | 1.692 | 1.673 | 1.702 | 1.643 | 1.643 | 1.643 | | | |
| 3 | 1.768 | 1.760 | 1.772 | 1.731 | 1.667 | 1.786 | | | |
| 4 | 1.926 | 1.886 | 1.946 | 1.929 | 2.000 | 1.875 | | | |
| 5 | 1.918 | 1.800 | 1.988 | 1.900 | 1.875 | 1.929 | | | |
| 6 | 1.838 | 1.696 | 1.911 | 1.767 | 1.643 | 1.875 | | | |
| 7 | 1.842 | 1.741 | 1.902 | 1.767 | 1.643 | 1.875 | | | |
| 8 | 1.895 | 1.911 | 1.885 | 1.912 | 1.929 | 1.900 | | | |
| 9 | 1.876 | 1.788 | 1.784 | 1.833 | 1.643 | 1.955 | | | |
| 10 | 1.715 | 1.668 | 1.732 | 1.654 | 1.357 | 1.875 | | | |
| 11 | 1.944 | 1.891 | 1.987 | 1.833 | 1.833 | 1.833 | | | |
| 12 | 1.470 | 1.400 | 1.513 | 1.357 | 1.357 | 1.357 | | | |
| Communication Skill | | | | | | | | | |
| 1 | 1.784 | 1.604 | 1.870 | 1.813 | 1.643 | 1.944 | 1.300 | 1.357 | 1.250 |
| 2 | 1.908 | 1.778 | 1.960 | 1.938 | 1.667 | 2.100 | 1.250 | 1.357 | 1.167 |
| 3 | 1.886 | 1.741 | 1.977 | 1.857 | 1.500 | 2.056 | 1.583 | 1.667 | 1.500 |
| 4 | 2.123 | 2.000 | 2.212 | 2.079 | 2.100 | 2.086 | 1.500 | 1.500 | 1.500 |
| 5 | 2.117 | 1.966 | 2.258 | 2.200 | 2.167 | 2.250 | 1.643 | 1.500 | 1.750 |
| 6 | 2.022 | 1.839 | 2.181 | 2.071 | 1.786 | 2.357 | 1.853 | 1.750 | 1.944 |
| 7 | 1.993 | 1.865 | 2.067 | 2.250 | 2.100 | 2.357 | 1.500 | 1.643 | 1.357 |
| 8 | 2.054 | 1.931 | 2.153 | 1.944 | 1.500 | 2.167 | 1.583 | 1.500 | 1.667 |
| 9 | 1.803 | 1.815 | 1.962 | 1.912 | 1.750 | 2.056 | 1.833 | 1.833 | 1.833 |
| 10 | 1.808 | 1.720 | 1.862 | 1.700 | 1.500 | 1.833 | 1.714 | 1.357 | 1.944 |
| 11 | 1.993 | 1.871 | 2.097 | 2.029 | 1.900 | 2.214 | 1.357 | 1.357 | 1.357 |
| 12 | 1.645 | 1.438 | 1.750 | 1.654 | 1.500 | 1.786 | 1.591 | 1.357 | 1.786 |