A COMPARATIVE FACTOR ANALYSIS OF THE IMPACT OF TWO STUDENT TEACHING PROGRAMS UPON THE SCHOOLS OF MICHIGAN WITH IMPLICATIONS FOR THE EVALUATION OF TEACHER EDUCATION PROGRAMS

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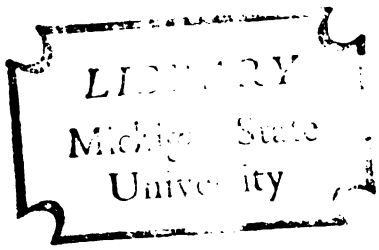

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Procedure

In a 1969 Michigan statewide study of the effects of student teaching programs upon the cooperating schools, data were gathered from 4676 student teachers, 4554 cooperating teachers, and 938 administrators. Included within this 1969 study were data for 496 Central Michigan University student teachers, 491 Central Michigan University cooperating teachers, and 113 administrators. Data were gathered in 1973 from 925 Central Michigan University student teachers, 930 Central Michigan University cooperating teachers, and 235 administrators. The data were subjected

ABSTRACT

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Procedures

In a 1969 Michigan statewide study of the effects of student teaching programs upon the cooperating schools, data were gathered from 4676 student teachers, 4554 cooperating teachers, and 938 administrators. Included within this 1969 study were data for 496 Central Michigan University student teachers, 491 Central Michigan University cooperating teachers, and 113 administrators. Data were gathered in 1973 from 925 Central Michigan University student teachers, 930 Central Michigan University cooperating teachers, and 235 administrators. The data were subjected

to factor analysis and Chi-Square was utilized in the comparison.

Findings and Conclusion

The comparison revealed:

(1) Statistically significant differences between the two Central Michigan University programs were found in eight of the twelve individual hypotheses (factors) for the Cooperating Teacher group.

(2) Statistically significant differences between the two Central Michigan University programs were found in eight of the eleven individual hypotheses (factors) for the Cooperating School Administrator group.

(3) Statistically significant differences between the two Central Michigan University programs were found in ten of the twelve individual hypotheses (factors) for the Student Teacher group.

(4) The full day full semester program developed in 1971 at Central Michigan University must be evaluated as a strong improvement upon the former eight weeks program regarding the impact upon the cooperating schools in Michigan.

Recommendations

(1) Central Michigan University should establish a continuous plan for evaluating its product and its program with the main objective of improving the teacher education program and its impact upon the cooperating

schools.

(2) The study should be replicated with another population of Central Michigan University student teachers. In addition, Elementary and Secondary student teachers should be studied separately.

(3) The Impact Study provided a wealth of data which included much demographic information. Many correlations could be made with these data.

(4) A greater in-depth look at the role of the student teacher should be planned. Consistent with the literature and the findings of this study, the student teacher is providing many new insights, materials, ideas, and aids for the schools. In addition, the cooperating teacher becomes more effective. This aspect of the teacher education program might be looked upon as a great in-service vehicle and should be examined further.

(5) Cooperating schools and universities should constantly be encouraged to evaluate the procedures, practices, and effectiveness of their joint teacher education programs.

(6) While the Impact Study instruments are able to provide a wealth of data, more valid shorter instruments to measure the effectiveness of teacher education programs are needed.

(7) The student teacher and cooperating teacher responses to both the 1969 Impact Study and the 1973 Central

Michigan University study should be analyzed on a cross-matching basis to see if the individual attitudes are consistent toward the questions (variables).

(8) A factor analysis of the Indiana Student Teaching Study data should be done to determine if factors will emerge which are similar to those factors found in this study.

(9) This study should be utilized to revise the Impact Study questionnaires and to develop scoring scales to rate individuals and/or programs.

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Charles J. Pisoni, Sr.

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CHAPTER I

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[1] Student Teaching Programs: Questions and Answers (Impact Study). Deans and Directors of Teacher Education in Michigan, June, 1970.

CHAPTER I

The study evaluated two different Central Michigan University teacher education programs regarding the impact of their student teachers upon the cooperating schools in Michigan. Student teachers in 1969 normally were placed in the cooperating schools full days for a period of eight weeks. In 1973, student teachers were placed in the cooperating schools full days for a full semester (sixteen weeks). Data concerning each program were collected in 1969 and 1973. The data base provided by the Impact Study[1] in 1969 made the undertaking of the study possible.

THE PURPOSE OF THE STUDY

The purpose of the study was to analyze the Central Michigan University data collected in the 1969 Impact Study and the Central Michigan University data collected in 1973 to determine if there was a difference in the impact of Central Michigan University student teachers in those two years upon the cooperating schools in Michigan. The 1969 Central Michigan University Elementary Education student teaching program placed students in a cooperating school environment for one assignment running half days for sixteen weeks and a second assignment of full days for eight weeks. For Secondary Education students in 1969, the student teaching assignment ran full days for eight weeks in a cooperating school environment. All assignments were made at a grade level consistent with the certification area of the student teacher. The 1973 Central Michigan University student

[1] Student Teaching Programs: Questions and Answers (Impact Study), Deans and Directors of Teacher Education in Michigan, June, 1970.

teaching program placed both Elementary and Secondary Education students in a cooperating school environment for full days for a full semester (16 weeks) in grade levels consistent with certification areas.

The data for the study were drawn from the judgments and opinions of cooperating teachers, cooperating school administrators, and student teachers affiliated with the Central Michigan University Teacher Education Program.

The study specifically sought to:

(1) Compare the impact of selected factors upon cooperating schools as viewed in 1973 by Elementary and Secondary cooperating teachers participating in the new full semester professional laboratory experience with the impact of the same selected factors upon cooperating schools as viewed in 1969 by Elementary and Secondary cooperating teachers participating in the former eight week professional laboratory experience.

(2) Compare the impact of selected factors upon cooperating schools as viewed in 1973 by cooperating school administrators participating in the new full semester professional laboratory experience with the impact of the same selected factors upon cooperating schools as viewed in 1969 by cooperating school administrators participating in the former eight week professional laboratory experience.

(3) Compare the impact of selected factors upon cooperating schools as viewed in 1973 by student teachers participating in the new full semester professional laboratory experience

with the impact of the same selected factors upon cooperating schools as viewed in 1969 by student teachers participating in the former eight week professional laboratory experience.

The following research hypotheses were developed for the study:

RESEARCH HYPOTHESIS I

There is a significant difference between the impact of the 1969 Central Michigan University Student Teachers and the 1973 Central Michigan University Student Teachers, upon the cooperating school districts as viewed by their respective cooperating teachers, using selected factors.

RESEARCH HYPOTHESIS II

There is a significant difference between the impact of the 1969 Central Michigan University Student Teachers and the 1973 Central Michigan University Student Teachers, upon the cooperating school districts as viewed by their respective school administrators, using selected factors.

RESEARCH HYPOTHESIS III

There is a significant difference between the impact of the 1969 Central Michigan University Student Teachers and the 1973 Central Michigan University Student Teachers, upon the cooperating school districts as viewed by the respective student teachers, using selected factors.

Null hypotheses are more suitable for the application of statistical tests. Therefore, three null hypotheses were developed to test the research hypotheses and several factors were identified

as a basis for judging each hypothesis. The null hypotheses and their individual factors are:

NULL HYPOTHESIS I

There is no significant difference between the impact of the 1969 Central Michigan University Student Teachers and the 1973 Central Michigan University Student Teachers, upon the cooperating school districts as viewed by their respective cooperating teachers, using the following factors:

A. Cooperating Teacher Utilization of Student Teacher.

B. Cooperating Teacher Conference with Student Teacher.

C. Staff Utilization in Non-Instructional Areas.

D. Individualized Instruction.

E. Additional Participation of Cooperating Teacher.

F. Cooperating Teacher Instructional Change.

G. Student Teacher Substitution.

H. Cooperating Teacher Assistance.

I. Non-Instructional Supervision.

J. Cooperating Teacher Professional Development.

K. Acceptance and Influence of Student Teacher.

L. Student Teacher Preparation.

NULL HYPOTHESIS II

There is no significant difference between the impact of the 1969 Central Michigan University Student Teachers and the 1973 Central Michigan University Student Teachers upon the cooperating school districts as viewed by their respective school administrators, using the following factors:

A. Non-Instructional Contributions by the Student Teacher.

B. Special University Service Availability to Staff.

C. Administrator Work Load Change in Counseling and Communication.

D. Pupil Instructional Activity Change.

E. Instructional Input of Student Teachers.

F. Student Teacher Academic Program.

G. Administrator Utilization of Released Time of Cooperating Teacher, Student Teacher, and Staff.

H. Teaching Utilization of Student Teachers.

I. Normal University Service Availability to Staff.

J. Additional Participation of Cooperating Teacher.

K. Student Teacher Effect on Pupils, Staff, and Parents.

NULL HYPOTHESIS III

There is no significant difference between the impact of the 1969 Central Michigan University Student Teachers and the 1973 Central Michigan University Student Teachers upon the cooperating school districts as viewed by the respective student teachers, using the following factors:

A. Staff Utilization in Non-Instructional Areas.

B. Cooperating Teacher Conferencing with Student Teacher.

C. Instructional Input of Student Teacher.

D. Student Teacher Substitution.

E. Cooperating Teacher Job-Related Time Change.

F. University Supervisor Assistance.

G. Cooperating Teacher Individualized Instructional Change.

H. Cooperating Teacher Professional Development.

I. Cooperating Teacher Responsibility Changes.

J. Student Teacher School and Community Involvement.

K. Additional Participation of Cooperating Teacher.

L. Cooperating Teacher Instructional Change.

Each factor under each hypothesis statement is treated as an individual hypothesis for purposes of acceptance or rejection. An individual hypothesis will be accepted as true if less than one-third of its accompanying variables show a significant difference between the two CMU programs. Each variable consists of the percentage responses from a particular 1969 CMU group and the corresponding responses from the 1973 CMU group. These responses were analyzed for significance by the Chi-Square method.

THE NEED FOR THE STUDY

Experimentation and innovation must of necessity be part of any ongoing program if the program is to be constantly updated and improved. This is particularly true in the area of teacher education whose primary purpose must be the preparation of good teachers.[2]

A major complaint against education centers around the lack of research aimed at determining which types of teacher education programs demonstrate positive effects upon the participants. And indeed, a new program is often started without any planned method of evaluating its effectiveness in comparison to the program which is being discarded. Kaltsounis and Nelson spoke to this point when they stated:

> Research findings are the most acceptable means

[2] Theodore Kaltsounis, John L. Nelson, "The Mythology of Student Teaching," Journal of Teacher Education, XIX (Fall, 1968), pp. 277-8.

of determining the quality, and therefore the nature of potential change of a teacher education program. Unfortunately, the theoretical basis for teacher education programs has not been well tested through research, and change in programs occur as a matter of tradition, power plays, and fetishes.[3]

Because of public pressures to hold education accountable for positive growth, the evaluation of any new program seems imperative.

Dressel stated:

> Evaluation involves judging the worth of an experience, idea, or process. The judgment presupposes standards or criteria. Thus, the worth of a single element, such as an idea, may be judged on some absolute basis - for example, its truth or falsity. The worth of each of several alternative ideas may be judged by comparison - for example, by their relative simplicity, inclusiveness, or effectiveness. The worth of an experience may be judged by its educational impact - that is, by the extent to which it, in itself or in comparison with other possible experiences, results in certain desired changes in those having the experience. Education is a complex process involving the selection of ideas (concepts, values, skills) and the planning of experiences designed to foster mastery of these ideas in the people subjected to the educational process. Choices must be made in planning an education program, and the effectiveness of the program must also be studied. Evaluation is, therefore, inevitable in education. . . . The issues to be resolved in clarifying the nature of the evaluation which takes place are concerned with the nature of the data, the range of considerations involved in making judgments, and the persons or agencies entrusted with making them. There is no issue regarding the presence or absence of evaluation. When one is faced with choice, evaluation, whether conscious or not, is present. Failure to engage systematically in evaluation in reaching the many decisions necessary in education means that decision by prejudice, by traditions, or by rationalization is paramount. Such patterns of decision making are not consistent with the aims of education, particularly with those of higher education, which in our culture are based upon the assumption that informed judgments can and should be wiser judgments.[4]

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[3] Ibid.

[4] Paul L. Dressel, Evaluation in Higher Education, Houghton Mifflin Company, Boston, 1969, p.6.

Commenting upon evaluation of programs, Kaltsounis and Nelson stated:

> With the lack of substantial supporting or contesting research data on effectiveness, programs need to be continually examined internally to provide at least a logical validation for their operation. That is, by applying tests of logic and empirical or observational judgment to programs of teacher education, the programs can be intellectually supported until acceptable research data contradict.[5]

Thus, if teacher educators are to maintain credibility as professionals consistent with the aims of higher education, they must constantly support planned evaluation of new and innovative teacher education programs which replace or add options to existing programs.

Closer partnership between universities and school districts, particularly in the preparation of teachers, both pre-service and in-service, has been a common goal in the state of Michigan for many years. Dean stated "The move of student teaching from campus to public schools was done with the assumption that both could profit from the relationship. However, over the years, little attention has been given to measuring the effect on the school in which students are placed. Consequently, questions have arisen as to the nature and extent of the benefits accruing to each of the partners."[6]

Central Michigan University can take a leadership role in solidifying a closer partnership if the University can provide assurances that its Teacher Education Programs, particularly the professional laboratory experiences, are having a positive impact upon the cooperating school district (i.e. do the benefits justify involvement in the partnership).

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[5] Kaltsounis, op. cit., p.278.

[6] Impact Study, Op. Cit., Foreward.

Seagren mentioned:

> As teacher training institutions have asked the public schools to accept increased numbers of student teachers, officials of these schools have legitimately asked, 'What impact do student teachers have on the students, both in terms of achievement and attitudes?' This question has been asked primarily about the academic areas where the effect of the student teacher perhaps is not so easily assessed as in specialized or laboratory areas. School officials are being negligent in fulfilling their basic functions if they do not request of teacher training institutions, some assurances that the student teacher is not hindrance to the learning process.[7]

Because of this lack of assurance, the Council of State College Presidents of Michigan in December of 1968 instructed the Deans and Directors of Teacher Education Programs in Michigan to devise a study to answer the question "What is the impact of a student teaching program upon the cooperating school district?" Educational researchers from Michigan State University, University of Michigan, and Central Michigan University designed the study and developed the survey instuments. A pilot study was conducted in the Spring of 1969 to help refine the survey instruments and the procedures needed to carry out a state-wide test. Officials from both the Michigan Education Association and the Detroit Federation of Teachers were actively involved in the development of the instruments.

The survey included the entire population of student teachers assigned to student teach in Michigan during the Fall quarter or semester of 1969, all the cooperating teachers working with these student teachers, and all the cooperating school administrators where student teachers were placed. This study commonly referred to as the Student Teaching Impact Study involved the judgments and

[7] Alan T. Seagren and others, The Impact of Student Teachers Upon the Attitude and Achievement of High School Students, Kansas City: Mid-Continent Regional Education Lab., Inc., 1967, p.1.

opinions of more than 10,000 cooperating teachers, student teachers, and cooperating school administrators in the most comprehensive study of student teachers in the state of Michigan.

The present study then grew out of the need for evaluating the effectiveness of teacher education programs and of the changes in these programs as they develop within institutions. A further recognized need was that of up-dating the findings from the 1969 Impact Study.

BACKGROUND OF THE STUDY

Central Michigan University is an institution committed to constant growth and updating of its programs. One of its main functions has been and remains the improvement of teacher education. A brief historical description of the teacher education program at Central Michigan University will enable the reader to appreciate this constant struggle toward the goal of improvement.

In 1891, a number of public-spirited citizens of the Mount Pleasant area formed an association for the building of a normal school to train teachers. This normal school was managed by private citizens until 1895 when the physical plant was offered to and accepted by the state of Michigan. The Act by which the Michigan legislature made the Central Normal a state institution declared that its purpose shall be, "For preparation and training of persons for teaching in the rural district schools and the primary departments of the graded schools of the state."[8] A Training School (1-6) was established in 1896 whose purpose was

[8] Central Michigan State Normal Catalog, 1897-98, p.7.

"to exemplify the model of conducting a good public school, and to train the Normal students in observing and teaching children. . . It shall be the aim to make this, as far as possible, a model school, both in the nature of the work done and in the general conduct and management of the same, so that the student who observes will see only the models which are worthy of imitation."[9] Since this optimistic beginning, Central Michigan University has consistently provided some type of professional laboratory experience for its teacher candidates.

Elementary Education

In its early beginning, Central State Normal put its heaviest emphasis upon the training of elementary teachers. Its early aim was "to furnish better teachers for the schools in which the masses are educated . . .the best teachers should be employed in the elementary schools, not only because so many children never get beyond them, but because all future work in school must rest on the foundation laid in the elementary grades."[10] The program of study was called Rural School Course which involved theoretical work in subjects such as arithmetic, reading, U.S. History, etc. and the involvement of the student teaching in the Training School. The student teacher had "to demonstrate his ability both as disciplinarian and instructor"[11] over "thirty-nine hours of work, i.e., one hour daily for thirty-nine weeks."[12]

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[9] Central Michigan Normal Training Manual, 1897-98, p.2.

[10] Central Michigan Normal School Yearbook, 1900-01, p.13.

[11] Central Michigan State Normal Catalog, 1897-98, p.13.

[12] Ibid.

In 1901, the above school practicum was changed to student teacher involvement in teaching and observation in the Training School for twenty-four weeks. Also in this year the Training School added kindergarten because a two-year program (leading to certification in kindergarten) was added to the Central State Normal curriculum. Students seeking certification in kindergarten were required to spend thirty-six weeks in the Training School. Twenty-four weeks were required of all the other elementary student teachers.

In 1918, Central Michigan State Normal was authorized by the State Board of Education to offer a four-year course of study leading to the B.A. degree with teacher certification. Credits were counted in units which equated to one hour of work per week for twelve weeks. Because of the above change, Teaching 101 and 102 became equivalent to eight term hours. The course descriptions summarized the work required of the student teachers:

> "Teaching 101 - 4 term hours - This course is based upon observation of teaching in the grades of the Training School. A study is made of the psychological principles underlying the teacher's work. In addition to exercises in observation and discussion each student will do reference reading. Special emphasis is taken to the making of lesson plans.
>
> Teaching 102 - 4 term hours - This work embraces observation, teaching in the Training School, writing reports on assigned topics and conferences with the instructors supervising the teacher."[13]

Teaching 103 (4 term hours) was also available as an elective course. Teaching 104 (4 term hours), an elective course, was added in 1924.

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[13] Central Michigan Normal School Quarterly, XXVIII, No.2, April 1922, p.102.

Because of the changing patterns of elementary education in the public schools of Michigan, Central Michigan Normal School, in 1925, maintained two separate programs for training teachers.

One program offered practice teaching in rural schools affiliated with the Normal School, while the second program offered practice teaching in the Training School or a public elementary school in Mount Pleasant. Special arrangements were made so that a student doing his practice teaching in the city school or the rural school might spend two hours per day for one term and receive eight term hours of credit and thus complete the required work in one term.[14] The rationale for practice teaching in the city schools was given as providing greatly increased facilities as well as an opportunity to do practice teaching under actual conditions.

A name change to Central State Teachers College was authorized by the State legislature in 1926. As if to keep up with the tradition of a name change, the teaching curricula were also changed along with course numbers. Teaching 201 (4 term hours), Teaching 202 (4 term hours) were required on all K-6 curricula. Teaching 203 (4 term hours) was required on all K-3 curricula. The course descriptions read: "Teaching 201,202 - the work embraces observation, teaching, writing of reports on assigned topics and conferences with the instructors supervising the teaching. Teaching 203 - this course required of students enrolled on the Early Elementary and and Specializing Curricula."[15] This sequence of courses was described

[14] Central Michigan Normal School Quarterly, XXXI, No.II, April 1925, p.115.

[15] Central State Teachers College Quarterly, 1926-27, p.150.

in the purpose of the Training School by stating "the 180 hours of supervised teaching required should give every student a certain degree of competency at the very start of his career."[16]

In 1927, the course requirements were changed so that all elementary programs leading to a life certificate had twelve term hours of practice teaching required. Five-year certificates in grades four through six had eight term hours of practice teaching required. Central State Teachers College was also authorized to add the B.S. degree in 1927. The course numbers were changed again in 1928 to Teaching 301, 302, 303 each carrying four term hours of credit. Again, in 1931, the course numbers were changed to Teaching 401, 402, 403.

Nineteen thirty-three saw the official establishment of a Training Department within the structure of Central State Teachers College. In 1936, the course names were changed to Student Teaching whose purpose was stated as:

> "During the three terms of student teaching, college students are given opportunity to live and work with children upon any selected level of development under the guidance of expert teachers. Through such participation, the principles of education obtained from academic and professional courses are tested out and vitalized . . . this experience should enable these candidates for teaching to attain a certain degree of skill in child guidance as well as a workable philosophy of education."[17]

Central State Teachers College changed its units of credit in 1939. The conversion was from term hours to semester hours. The Student Teaching courses were also changed to reflect this arrangement. Student Teaching 401 (4 semester hours) and 402 (4 semester

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[16] Ibid., p.158.

[17] Central State Teachers College Yearbook, XLII, No.II, 1936, p.159.

hours) were now required of all elementary teacher candidates while Student Teaching 403 (4 semester hours) became an elective course. Elementary student teachers were now required to spend a double period (2 hours) per day in Student Teaching.

The Training Department became the Department of Laboratory Schools in 1940. Also with this change, the Student Teaching courses were renamed to Directed Teaching and renumbered to Directed Teaching 453 and 454 Elementary (8 hours).[18] In 1941, the official name of the institution was changed to Central Michigan College of Education. Consistent with this change, elementary student teachers were required to spend three hours per day (either A.M. or P.M.) in Directed Teaching. The other half day was spent in course work, normally in education. An internship program was also available where the elementary student teacher would spend one semester full day in Directed Teaching. Group seminars for these interns were conducted over two semesters. At least six weeks of this experience had to be spent in a public elementary school. Separate arrangements were made with public schools throughout the state of Michigan for this six-weeks block.[19]

Special Education was offered as an additional area of certification on both elementary and secondary programs in 1946. In the next two years, the Elementary Education Curricula were changed so that ten (10) semester hours of Student Teaching were required. (Also note course name change again.) However, there was no change in student teacher time spent in the laboratory experience. In addition to the above change, in 1948, all units listed under Student Teaching, Laboratory Schools, or Rural Education were united into the newly established

[18] Central State Teachers College Yearbook, Vol.46, No.2, 1940, p.185.

[19] Central Michigan College of Education Quarterly, Vol.48, No.2, 1942, p.228.

Department of Psychology and Education. In 1953, the Directed Teaching (name change) courses Elementary 453 (5 hours) and 454 (5 hours) were described as ten hours per week of observation and teaching and two hours per week of conferences with supervising instructors.[20]

The ensuing years saw a rapid change in the institution. Its name became Central Michigan College in 1955 and Central Michigan University in 1959. The Elementary Education program was also changed. The ten semester hours of Directed Teaching remained the same. However, the course numbers were changed in 1960 to Elementary 354 - Directed Teaching (5 hours) and Elementary 355 - Directed Teaching (5 hours). The largest change involved Elementary 355. Most elementary student teachers were now placed in public schools throughout the state of Michigan full day for eight weeks to fulfill this course requirement. The other eight weeks of the semester were spent on campus involved in other educational courses. In special cases, students were allowed to take Elementary 355 in the same manner as Elementary 354, which was ten hours per week of observation and teaching and two hours of conference with supervising instructors. Because of the placement of student teachers in areas away from the immediate campus, the Department of Psychology and Education had faculty members who lived in these distant communities. The faculty member's job was to supervise student teachers and hold seminar meetings with the student teachers. While holding official faculty rank, their title has ranged from Coordinators to University Supervisors. This practice led to the establishment of off-campus student teaching centers

[20] Central Michigan College of Education Quarterly, Vol.59, No.3, July 1953, p.233.

administered by one or more University Supervisors. (As the University grew, the number of off-campus centers also increased.)

This pattern of Elementary Education professional laboratory experiences stayed constant from 1960 to 1972, with the exception of an internship program which ran from 1962 through 1970. Through a grant from the Ford Foundation, Central Michigan University offered a five-year intern program. Three semesters of professional laboratory experience were provided the teacher candidate. During the first experience, the student was regarded as a teacher assistant and the second experience was looked upon as an in-depth student teaching experience. Finally, the teacher candidate spent a third semester in complete charge of a classroom with close supervision both by the public school and the University. Various degrees of pay were given the student throughout the three experiences. The program was presented "The Distinguished Achievement Award" in Teacher Education, 1965, by the American Association of Colleges for Teacher Education. However, the program design allowed the intern to graduate and become certified without enrolling in the third semester laboratory experience. Thus, the program lacked the power to hold candidates through the third semester and so fulfill its commitment to the cooperating school districts. In addition, collective bargaining between teachers and administrators brought an end to public school districts hiring non-fully certified personnel, making placement of the third semester intern extremely difficult. For these reasons, the intern program was eliminated in the 1969-70 academic year.

In summary, since 1960, most Elementary Education students received their professional laboratory experiences in two separate

courses in two different semesters. The first course was a half-day (A.M. or P.M.) student teaching assignment in the peripheral school districts around C.M.U. (within a 35 mile radius). The student received five semester hours of student teaching credit for this experience. Duirng the other half day, the student took enough course work (normally 10 to 13 semester hours) on campus to enable him to maintain a full semester of credit. Some of these courses were in education, others were not.

The second course of a student's professional laboratory experience was a full day eight weeks assignment in a Michigan public school. The student teachers were assigned to an off-campus center manned by one or more University Supervisors who provided and directed the laboratory experience of the University students in that center. The student received five semester hours of student teaching credit for this experience, giving the student a total of ten semester hours of student teaching credit toward graduation and certification. Concurrent with the second school experience, the student teacher participated in a three semester hour problem-solving oriented seminar directed by the University Supervisor. During the other eight weeks of the semester, the student took course work taught on campus by the Elementary Education faculty. The Elementary Education student, therefore, spent thirteen semester hours out of a required thirty Elementary Education hours with the University Supervisor in a field experience.

Because of a constant concern by the University faculty, the cooperating teachers, and the University students themselves, that

the first laboratory experience was an extremely heavy burden upon the physical and emotional state of the student who was carrying ten to thirteen semester hours in addition to an involvement in the public school, Central Michigan University searched for a more meaningful first experience for its Elementary Education students.

In addition to the above concern was the fact that for some students a year to a year and a half might elapse between the first experience and the second experience.

In the Fall Semester 1971, the Elementary Education Department, in cooperation with the Student Teaching Department, approved a program for a full semester professional laboratory experience effective Fall Semester 1972. Included within this professional semester is ten semester hours of student teaching credit and a three semester hour seminar involving a variety of topics such as evaluation, collective bargaining, parent conferences, and special areas of concern to one or all student teachers. Thus, the professional laboratory experience for Elementary Education students has been compressed in time to involve total commitment for one semester.

Secondary Education

The historical development of the professional laboratory experience for Secondary Education students parallels the Elementary Education development very closely. As was mentioned above, one of the purposes of Central Normal was to prepare and train people for teaching in the primary departments of the graded schools in the state. The Training School provided opportunity for practice teaching

in grades seven and eight. The Graded School Course "includes the common academic branches of the high school and in addition the purely professional status. It is expected that one hour daily for the entire year will be given to observation or teaching. While actually teaching, a student will be allowed to carry but three subjects."[21] The normal load was four or five subjects. As with the Elementary Education program, the student in the Secondary Education program was required to observe and teach for twenty-four weeks or two out of three terms. In 1906, specialized curricula were offered to prepare teachers in public school music and manual training.

The Graded School Course was changed in 1912 to better identify with the area of certification. It now became known as the Course for High School Teachers. The involvement of the student teachers in observation and teaching still remained at twenty-four weeks. Specialized curricula were again added in the ensuing years with preparation programs for teachers of agriculture (1913), allied sciences (1914), art (1920), and physical education (1920). As was mentioned previously, during these same years the institution established a four-year course of study, changed to units of credit (1918), and then to term hours of credit (1922). From its beginning and until 1940, the institution did not list different course titles or numbers for Elementary Education and Secondary Education Teaching courses. Therefore, the description of course changes both in titles and numbers, that applied to the Elementary Education section above also apply equally here. The emergence of a truly separate Secondary

[21] Central Michigan State Normal Catalog, 1897-98, p.16.

Education program started in 1921. The Training School was divided into a K-6 unit and a Junior High unit each with its own principal. In 1926, Central High School, Mount Pleasant, Michigan was made available as a student teaching placement facility. Also in this year, all specialized curricula on Secondary Education programs required twelve term hours of teaching. These curricula included the above mentioned plus commerce, home economics, and a split to boys' and girls' physical education. All other Secondary Education programs required eight term hours. The 1928-29 yearbook describes the high school program thusly: "There are ten supervisors of student teachers in the Mount Pleasant High School, offering opportunities for teaching in every department."[22] These supervisors were faculty members of the public school system. In 1933, the B.A. or B.S. degrees were required for all new teachers teaching in accredited high schools. Once again, the change mentioned in the previous section applies here. The change in 1939 from term hours to semester hours had a positive effect upon the Secondary Education program. Because now all students on these curricula were required to take eight semester hours of student teaching. This change was further reflected in 1940 by the establishment of separate course titles for Secondary Education. These courses were now listed as 463 and 464 - Directed Teaching and Special Methods - Secondary - 8 hours. The internship program mentioned in the previous section was also available to Secondary Education students. These students were involved for at least six weeks in a public school outside Mount Pleasant, and separate arrangements were made in the same manner as for the Elementary Education student teachers. The normal Secondary Education

[22] Central State Teachers College Quarterly, Vol.XXXV, No.II, April 1929, p.155.

student teacher still spent only one hour per day in observation and teaching until 1955. The course description for 463 and 464 was five hours per week in special methods, observation, teaching, and two hours of conference with supervisors. From 1955 to 1960, the Secondary Education program provided some options for its student teachers. The student teacher could arrange to student teach for two semesters in one or more classes under a supervising teacher or he could arrange to student teach full day for eight weeks in an off-campus center under the direction of a University Supervisor and a supervising teacher. Concurrent with the time period, the Junior High was closed in the Training School (1957). The year 1960 saw the formulation of a more structured program for Secondary Education students.

The professional laboratory experience for Secondary Education students was established as one eight-week period of full-day student teaching. As in the case of the Elementary Education student, this assignment was in a student teaching center staffed by one or more University Supervisors. The student received eight semester hours of student teaching credit for this experience. The other eight weeks of the semester consisted of course work taught on campus by Secondary Education faculty members. The Secondary Education student had the choice within University faculty load limits as to the period (first eight weeks or second eight weeks) in which the professional laboratory experience was taken. This arrangement remained constant until 1972. The only exception to this type of experience was the internship concept (1962-70) mentioned under the Elementary Education section.

In January 1971, the inception of a different concept in Secondary Education at Central Michigan University was created because (1) eight weeks is a very limited time period in which to provide student teachers with a variety of field experiences, (2) a variety of different field experiences over sixteen weeks had proved successful for Elementary Education student teachers, and (3) many faculty members in the School of Education desired to attempt to integrate educational theory and practice more closely. Thus, the Secondary Education Department, in cooperation with the Student Teaching Department, approved a full semester professional laboratory experience that became completely operational by Winter Semester 1972. Included within this semester are eight semester hours of student teaching, a three semester hour integrated methods course, and a two semester hour seminar normally run on an independent study basis. Inherent in this program is a shift in the total number of semester hours involved in the professional laboratory experience. Instead of only eight semester hours of a required twenty-one semester hours in Secondary Education being handled by a University Supervisor, the new program increased the semester hours in the field experience to thirteen. This has increased the instruction and supervision in the off-campus center run by the University Supervisor from 38% of the required Secondary Education courses to 62%. Thus, the Secondary Education student teacher in the new program is spending much more time involved with public and private school students and teachers than the Secondary Education student did in the former program.

In summary, teacher education at Central Michigan University has been constantly evolving. Unfortunately, prior to the present study, little research has been done to judge the quality of the changes or

whether the changes have been improvements.

Since the major thrust toward a longer professional laboratory experience in both Elementary Education and Secondary Education programs resulted in substantial instructional changes and students being removed from the campus environment for a longer period of time, planning documents from the Provost's Office spoke to this concern:

> "Recommendations call for the expansion of the professional semester. These recommendations are supported; however, this development should be studied and efforts made to evaluate carefully its impact on students . . . as soon as enough evidence is available, evaluations should determine whether the qualitative change in student experience justifies the cost in additional resources and the separation of faculty and students from campus . . . this program required careful evaluation in the next few years . . . and quality of student experience should be reviewed."[23]

Thus, Central Michigan University must attempt to evaluate all available data, both 1969 and 1973, to determine if the changes in the Teacher Education Program, particularly the professional laboratory experience, have an increasing impact upon the students and the cooperating schools.

This study judges the latest change in the evolution of teacher education at Central Michigan University in comparison with the earlier programs described on pages 17 and 18 for Elementary Education and page 22 for Secondary Education. This was the status of the Central Michigan University programs at the time the data were gathered for the 1969 Impact Study.

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[23] Central Michigan University's Planning for the Future, 1971-72, Volume 1, Number 2, p.22.

Basic Assumptions

The planning, conducting, and reporting of the present study were subject to the following assumptions:

Assumption I — That the University Supervisor, who administered the questionnaire in 1969 and 1973, did so in a comparable manner.

Assumption II — That the 1969 and the 1973 cooperating teachers had similar qualifications to be participants in professional laboratory experiences.

Assumption III — That the 1969 and the 1973 cooperating school administrators had similar qualifications to be participants in professional laboratory experiences.

Assumption IV — That any significant change in impact is independent of the University Supervisor.

Assumption V — That any significant change in impact is independent of the present job market or the militancy of teachers.

LIMITATIONS

The limitations of the study fall into three categories. The first concerns the choice of populations. The factor analysis involved with the three total groups represented almost the entire student teaching population in the state of Michigan in 1969.

Generalizations drawn from this analysis should be limited to that population, although some general findings might be cautiously applied to other student teaching samples either within the state of Michigan or outside the state of Michigan.[24] The analysis involved with the sections of student teachers, cooperating teachers, and administrators concerned with Central Michigan University have produced findings that should be generalized only at Central Michigan University.

A second limitation is cited in reference to methodology. The study utilizes the questionnaire technique. This technique is subject to the usual research criticisms except in the area of returns. Because of the procedure used in the dissemination and collection of the questionnaire, a response of approximately 90% was achieved. This percentage of return is sufficiently high to negate the criticism of small returns.

A third limitation relates to the off-campus centers. The professional laboratory experience is governed in part by the quality of cooperating teachers and school administrators within the centers. The more years a University Supervisor has worked within a center, the more familiar he will be with the ability of the school's staff, the programs in his various school districts, and the unique problems and concerns within his center. Therefore, the atmosphere of each center may vary with each University Supervisor, and no attempt was made to correct for these variations.

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[24]The Indiana Student Teaching Study, Indiana Association of Teacher Educators in cooperation with the Indiana State Department of Public Instruction, 1975.

DEFINITION OF TERMS

Total

Total (Administrator, Cooperating Teacher, Student Teacher) - those individuals in each group who represent all the Michigan institutions participating in the Impact Study in 1969 (thirty-one institutions representing 99% of all student teachers placed in the Fall of 1969).

Impact

The effect student teachers have upon the cooperating teachers, staff, students, and instructional activities in the cooperating schools.

Teacher Education

All activities and courses directed by the College of Education which made a contribution to the preparation of teachers. This represents both cognitive learning and practical experience.

Professional Laboratory Experiences

All those organized and directed contacts with children, youth, and adults which made a direct contribution to an understanding of individuals and their guidance in the teaching-learning process.

Off-Campus Center

School systems which have joined with Central Michigan University by contracted agreement to have student teachers in their schools.

University Supervisor

The faculty member appointed by the University to direct the professional laboratory experience in the off-campus center.

Student Teacher

An individual enrolled in the teacher education program who actively participates in the professional laboratory experience and who is currently registered for student teaching credit.

Cooperating Teacher

A regular teacher on the staff of a cooperating school district who helps direct activities of a student teacher doing the professional laboratory experience.

School Administrator

The building administrator who is in charge of the placement of student teachers in his building.

Cooperating School District

A school district which makes up part of an off-campus center.

Summary and Overview

This chapter has reported the following:

(1) the purpose of the study

(2) the statement of the research hypotheses and the development of the null hypotheses and their factors

(3) the need for the study

(4) the background for the study-historical development of teacher education at Central Michigan University

(5) the basic assumptions

(6) the limitations

(7) the definition of terms

In Chapter II the literature which is relevant to the study is reviewed. The theme of the chapter is the professional laboratory experience and its involvement with the cooperating school districts. The first section focuses upon the advantages and/or disadvantages of the professional laboratory experience for the cooperating school districts. The second section reviews the studies which used the Impact Study data and/or instruments.

The procedures used in the study are discussed in detail in Chapter III. The methodology of the collection of the data for the populations of the study are described. The development of the factor analysis used in the study as well as the selection, naming, and analysis of the factors are reported in detail.

The statistical data which were gathered are presented in Chapter IV and the findings are analyzed.

A summary of the study appears in Chapter V, together with a discussion of the findings of the study. Conclusions prompted by the study are drawn and recommendations for further study are suggested.

CHAPTER II

CHAPTER 2

A REVIEW OF THE PERTINENT LITERATURE

INTRODUCTION

Since the subject of this study involves the comparison between two Central Michigan University Teacher Education programs and their impact upon the cooperating schools, the cited literature falls naturally into two areas. The first area involves the literature dealing with the need for a professional laboratory experience, the rise of off-campus centers, and the acceptance and benefits of teacher education programs. The second area includes those studies which made use of the Impact Study and/or instruments.

Professional Laboratory Experience

The literature in the area of teacher education professional laboratory experience is abundant with articles and studies. An in-depth look at this plethora of material reveals many interesting trends. The student teacher, the cooperating teacher, and the university supervisor - the three members of the student teaching triad - are studied singularly or in relationship with each other. Much of this material seems to divide itself into five major groupings: (1) role expectations, (2) personal influence and attitudinal change, (3) comparisons, (4) achievement measures, and (5) opinion surveys, with the vast majority of these studies falling into the first three categories. The administration and organization of student teaching programs have also been reported extensively.

The most consistent, and perhaps most interesting, discovery from these many studies is that student teaching is regarded as the most important experience of the teacher certification program. Even a critic like Conant concludes, ". . . the one indisputably essential element in professional education is practice teaching."[1] Further Hunter and Amidon stated, "It may well be that student teaching is the single most important experience in teacher education in terms of influencing the classroom behavior of future teachers."[2] This theme runs throughout so much of the literature that it appears to be a fixed generalization about teacher education programs.

The second major discovery from the literature is the absence of arguments for the need of a professional laboratory experience. The need is assumed. Colleges and universities responsible for developing and improving teacher education programs have, from their inception, recognized the need for providing some type of professional laboratory experience for their teacher candidates.[3]

From the beginning, laboratory or campus schools played a large role in this experience to the extent that Quick reported, "Campus laboratory schools were once the heart of the teacher education program."[4]

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[1]James B. Conant, The Education of American Teachers, (New York: McGraw-Hill), 1963, p.142.

[2]Elizabeth Hunter and Edmond Amidon, "Direct Experiences in Teacher Education: Innovation and Experimentation," The Journal of Teacher Education, XVII (Fall, 1966), p.282.

[3]Harrison Gardner and Marvin A. Henry, "Designing Effective Internships in Teacher Education," Journal of Teacher Education, XIX, (Summer, 1968), 181.

[4]Donald M. Quick, "A Historical Study of the Campus Laboratory Schools in Four Teacher Education Institutions in Michigan," (unpublished dissertation, University of Michigan, 1970), p.1.

While a historical description of the role of the laboratory school might prove interesting, the summary of the major findings related to the historic and contemporary functions of the campus laboratory schools as reported by White[5] will serve as sufficient information: (1) During the nineteenth century these schools served principally as places where prospective teachers could observe instructional techniques and do practice teaching. (2) At the beginning of the twentieth century, certain college-controlled laboratory schools became centers for educational experimentation. However, student teaching and demonstrations were still the primary functions of most of the laboratory schools. (3) The removal of the student-teaching function from the college-controlled laboratory schools to the public schools during the years following World War II caused some educators to question the proper role of the laboratory schools. (4) The most commonly cited function of the contemporary college-controlled laboratory schools was to provide a satisfactory education for the pupils enrolled. (5) The second major function of the present laboratory schools was to provide facilities for pre-student teaching observation. (6) Experimentation and research were not among the principle functions of the majority of the college-controlled laboratory schools.

However, the demise or falling out of favor of campus laboratory schools is well documented. During the 1920's, there was a marked increase in the use of off-campus practice teaching. One survey showed that from 1917 to 1927, there was an increase of 27 percent in the number of normal schools using only off-campus

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[5]Norman D. White, "The Status and Potential of College Controlled Laboratory Schools, (Unpublished doctoral dissertation, George Peabody College for Teachers, 1964).

practice teaching. This increased use of the public schools for practice teaching was partially due to the fact that the growth in normal schools resulted in their model schools being incapable of accomodating all the practice teachers. Also, there was a feeling that the public school could provide a more typical teaching situation for the practice teacher.[6] Swenson and Hammock summarized several reports published between 1920 and 1947, indicating that there has been a steadily increasing dependence on public schools for student teaching and that in 1947 it was becoming apparent that laboratory schools ought to be used as research centers and not for student teaching. They commented further that the public school has increased in its function as a laboratory to the point where it is of at least equal or greater importance in education of teachers for our schools.[7]

Cox maintained that three major reasons for the exodus from campus laboratory schools to the public schools are "(1) laboratory schools are expensive, (2) laboratory school classrooms were overloaded with teachers, and (3) public schools provide a more realistic teaching situation,"[8] while Quick reported that "During the 1950's and especially during the 1960's, the campus laboratory

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[6]James A. Johnson, A Brief History of Student Teaching, (DeKalb, Illinois: Creative Educational Materials), 1968, p.9.

[7]Esther J. Swenson and Robert C. Hammock, "Off-Campus Laboratory Experiences" Their Growth, Importance, and Present Role in Teacher Education," Off-Campus Student Teaching, Thirtieth Yearbook of the Association for Student Teaching (Lock Haven, Penn.: The Association, 1951), p.20.

[8]Dan Cox, "Why Should Public Schools Accept Student Teachers?," Educational Administration and Supervision, Vol.45, No.5, (September, 1959), p.275.

schools began facing a series of evaluations and justifications to warrant the need for their continued existence on the college campuses."[9] These factors clearly led to the demise of campus laboratory schools and forced teacher education institutions to rely heavily, if not entirely, upon the K-12 public and private schools for placement of student teachers. The beginning development of off-campus laboratory experiences is extremely difficult to document. Swenson and Hammond indicate this problem by stating:

> It is known that almost at the time of the establishment of the first normal school the campus school, or "model" school appeared. The first off-campus facilities used are not recorded, but it can be surmised that the first teacher education institution which enrolled more students than its campus school could care for as student teachers turned to the public schools in the town. It is recorded that in 1920 one-third of the normal schools in the country were using public schools for student teaching.[10]

Looking at the objectives of the student teaching program, Walsh stated:

> The major objectives of student teaching were to provide prospective teachers with direct experiences in classrooms with children, to provide opportunities for practice teaching under competent guidance and supervision, and to further evaluate the qualifications of individuals for becoming teachers.[11]

The Deans and Directors of the state universities in Michigan in a position paper published in 1968 listed four main principles which were considered paramount for a model student teaching program:

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[9] Quick, op.cit., p.37.

[10] Swenson and Hammock, op.cit., p.21.

[11] John Edward Walsh, "The Administration and Supervision of Seven Elementary School Student Teaching Programs in the State of New Jersey," (Unpublished doctoral dissertation, Fordham University, 1969).

(1) The program for student teachers should provide great flexibility so that strengths and weaknesses of individual students will determine the specific program each will follow; (2) the student teacher should be involved in a program which is designed to provide contact with several teachers and various teaching styles; (3) the program should be structured to provide many other kinds of school experiences for the student teacher in addition to classroom teaching; and, (4) effective means should be developed to bring practicing teachers and teacher preparation institutions into a true partnership in the design and implementation of teacher education programs.[12]

Bennie, in a comparative study of on-campus and off-campus student teaching experiences, stated that off-campus experiences were superior to on-campus experiences because "off-campus provides opportunity for more student teacher participation in learning activities, involves more adequate participation in these activities, and results in greater and earlier attainment of the objectives of student teaching."[13]

Telego further speaks to the off-campus benefit when he stated:

> In the opinion of most college administrators student teaching centers had been established originally

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[12] Leland Dean and W. Henry Kennedy in collaboration with Deans and Directors of Teacher Education in Michigan Colleges. "A Position Paper on Student Teaching Programs," Teacher Education in Transition, Vol.1, Howard E. Bosley (Director) (Baltimore, Maryland: Multi-State Teacher Education Project, May, 1969), pp.165-166.

[13] William A. Bennie, "A Comparative Analysis of the On-Campus and Off-Campus Student Teaching Programs in Secondary Schools at Miami University," (Unpublished doctoral dissertation, Indiana University, 1955.)

> to unite schools and colleges in a joint effort to improve off-campus experiences for prospective teachers. Both college administrators and center coordinators tended to agree that centers had provided greater involvement of student teachers in a wide range of experiences in the school and community; increased availability of professional assistance; closer school-college cooperation; and greater familiarity with school faculty resulting in better placement of students and increased flexibility in designing experiences.[14]

The need for the student teacher to undergo a professional laboratory experience is supported by Preil, who discovered that:

> The data supported the first hypothesis that beginning elementary teachers with student teaching backgrounds are more effective teachers than beginning elementary teachers without student teaching backgrounds. This was indicated at statistically significant levels for fourteen of the twenty-three teaching functions evaluated by principals.[15]

Further the student teacher must become aware of and actively share in many activities of the school and its community.

Indicating this aspect of teacher education Ward and Stearns stated:

> . . .the public school and a local community can make distinctive contributions: there are almost infinite possibilities for educative field trips, resource people, local records to examine, and reading opportunities which give information and serve to clarify meanings. Experiences may be gained as students visit many kinds of classes and community functions on their own time. Volunteer service to various agencies often results from these contacts. The emerging teacher gains an understanding of the historical background of a community, its physical features and natural resources, its governmental agencies, the people, occupational and professional life, educational opportunities and facilities,

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[14] Gene Anthony Telego, "An Analysis of Selected Aspects of Student Teaching Centers in Secondary Schools," (Unpublished doctoral dissertation, The Ohio State University, 1972.)

[15] Joseph J. Preil, "The Relationship Between Student Teaching and Teaching Effectiveness," (Unpublished doctoral dissertation, New York University, 1968.)

> religious groups and their activities, civic groups and their programs, transportation and communication facilities, cultural opportunities, health agencies and their work, and facilities for leisure pursuits.[16]

That there are benefits accruing to the cooperating schools seems to be well documented. The position paper of the Deans and Directors of Michigan stated the following anticipated benefits to the teachers and schools:

> The inservice growth opportunitites for the classroom teacher will be greatly increased . . . The greatly increased instructional resources available in a school building makes possible the release of individual teachers on occasion from their normal responsibilities. . .The school program can be enhanced and enriched by many activities which the students can well direct as they gain experience with pupils and programs. . . The presence of student teachers in a school can have a healthy psychological effect upon experienced teachers. . . The increased instructional resources would provide for additional aid in the classroom proper, and also provide remedial services of many kinds for small groups or individuals outside the formal classroom setting. . . One other benefit to the school system has long been recognized. This is the opportunity it provides for the school district to employ excellent beginning teachers . . .[17]

Two separate studies of the opinions of cooperating teachers and administrators regarding the effect of student teaching programs upon the public schools in New York and Pennsylvania were conducted by DelPopolo and Hillson.[18] They found that because of the presence of student teachers, cooperating teachers (1) increased their own awareness of a need to do their best job of teaching,

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[16] Association for Student Teaching, Teacher Education and the Public Schools, Fortieth Yearbook (Cedar Falls, Iowa: The Association, 1961), p.99.

[17] Deans and Directors, op.cit., pp.11-12.

[18] Joseph A. DelPopolo and Maurie Hillson, "Student Teaching and the Role of the Public Schools," New York State Education, LI (March, 1964), pp.14-15.

(2) attempted to be models for student teachers, (3) were encouraged to seek critical comments about their own teaching, (5) spent more time in planning than usual, (6) adopted some methods used by the student teachers, and (7) derived personal satisfaction from watching growth of their student teachers.

Further, they reported that because of the presence and contributions of the student teachers: (1) more teaching time was available, (2) the quality of classroom programs was improved, (3) the personal welfare of the pupils was improved, (4) individual pupils showed greater growth, (5) new insights about some children were adopted, and (6) helpful assistance in non-teaching obligations was shown.

Finally, the consensus of all respondents was that because of the student teaching program, the instructional competency was upgraded, the classroom program was enriched, as well as expanded, and that an "esprit" continued to permeate the staff even after the student teacher left the public school scene.

Rich questioned cooperating teachers and administrators in the Davenport, Iowa and Rock Island, Illinois area as to their reactions to the Western Illinois University student teaching program. He found that:

> The public school participants reported many benefits received from participation. Reported most often were statements that the pupils received more assistance, the teachers became better teachers, and classroom instruction had improved. While few problems were reported, those mentioned most often were that the teaching pace was slower when the student teacher

> was in charge, and other teachers did not always understand the role of the supervising teachers.[19]

Greene[20] and others in the Department of Student Teaching at Northern Illinois University conducted a study of recent graduates who had completed student teaching at Northern Illinois University. 476 elementary and secondary graduates responded to a free response questionnaire asking what benefits they felt student teaching programs brought to the pupils, to the cooperating teachers, and to the school and community. 76% of the graduates indicated that they had benefited the pupils by introducing viewpoints, methods, procedures, and materials that were different from those which had been used by their cooperating teachers. Another high response (73%) was that the presence of two teachers working in the classroom resulted in more individual attention for the pupils.

Edgar Tanruther, Chairman of the Association for Student Teaching's Commission on Inservice Education of the Supervising Teacher, stated that:

> When a local school system cooperates with a teacher education institution both tangible and intangible benefits can result. Pupils can benefit from an increased amount of enthusiasm and skill with which a supervising teacher and student teacher often approach their work. Other teachers and the principal benefit from the help that can be received from the college supervisor and other college personnel who spend time and effort in the school working with

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[19] Victor J. Rich, "The Evolving Student Teaching Program at Western Illinois University and an Assessment of the Quad-Cities Resident Student Teaching Center," (Unpublished doctoral dissertation, Michigan State University, 1967), p.147.

[20] Gwynn Greene, et al., "Student Teaching: Do the Participating Schools Benefit?," Illinois Education, Vol.55, (November, 1966), pp.107-109.

> the student teacher, supervising teacher, and others. Parents frequently take pride in the fact that their school is recognized as one which the college or university selects as a cooperating school.[21]

Ward and Stearns expanded upon the parent and community aspects by stating:

> The expanding role of the public school in teacher education implies a new closeness of teacher education activities to the people of the local communities. One of the most significant contributions a public school can make to teacher education is the good will which it has built within the community. A good community relationship with the school fosters a good community relationship with the teacher education program. Community acceptance of its school is a prerequisite of community acceptance of a cooperative teacher education program, and without such acceptance many of the potential values in the educative experiences are lost.[22]

Citing another reason why public schools should offer facilities and staff for student teaching, Bennie states that the obvious reason is that ". . .the public schools have a vested interest in the quality and preparation of teachers who will be filling their classrooms in the future."[23]

In a study which asked secondary pupils their reactions to student teachers from Indiana State University, Sharpe cited the following conclusions:

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[21]Edgar M. Tanruther, "Facilitating Inservice Education," Professional Growth Inservice of the Supervising Teacher, Forty-Fifth Yearbook of the Association for Student Teaching, (Cedar Falls, Iowa: The Association, 1966), p.74.

[22]Ted Ward and Troy Stearns, "An Expanding Role," Teacher Education and the Public Schools, Fortieth Yearbook of the Association for Student Teaching (Cedar Falls, Iowa: The Association, 1961), pp. 106-107.

[23]William A. Bennie, Cooperation for Better Student Teaching, (Minneapolis, Minnesota: Burgress Publishing Company, 1966), p.20.

> (1) Pupils enjoy having student teachers in their classes. They do not want them in every class nor do they want them throughout the whole year. Probably the most important reason for liking student teachers is the fact that having them constitutes a novel, and therefore an interesting experience. Other reasons include the recognition that two teachers are able to provide more help than one teacher along (sic), and the recognition that the program provides valuable experiences to future teachers. (2) Pupils feel that their learning does not suffer when student teachers are assigned to a class. Most of them feel that the total learning situation is improved. The fact that they feel as they do is a high compliment to the cooperating teacher, who plays the crucial role. (3) Pupils recognize that matters of group control and discipline present more difficult problems to the student teacher than to the regular teacher. However, they do not feel that they have suffered because of the student teacher's inexperience. (4) Pupils seem to share the opinion of those persons who have instituted off-campus student teaching programs that such a cooperative arrangement is a desirable practice.[24]

Daniel and Compton[25] surveyed pupils in public high schools and pupils in a campus laboratory school as to their reactions to their student teachers from Southwest Missouri State College. They found that 75 percent of both groups liked having student teachers, although the public high school students had significantly more positive attitudes toward student teachers than did the campus school pupils.

Another study relating to pupil reactions to student teachers was conducted by Drake and Kraft[26] utilizing 365 pupils in 13 different

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[24]Donald M. Sharpe, "The Pupils Look at the Program," Off-Campus Student Teaching, Thirtieth Yearbook of the Association for Student Teaching (Lock Haven, Pennsylvania: The Association, 1951), pp. 119-120.

[25]K. Fred Daniel and Ronald Compton, "Reactions to Student Teachers," School and Community, Vol. 51, (November, 1964), p.23.

[26]Thelbert L. Drake and Leonard E. Kraft, "How Do Students Feel About Student Teachers?," Illinois Education, Vol. 55, (November, 1966), pp. 106-107.

school districts in Illinois. A total of 91 percent of the pupils agreed with the statements "Generally student teachers' instruction is good" and "I look forward to having a student teacher in my classes." The two statements "Student teachers are fair in disciplinary matters" and "Student teachers explain material well" were agreed upon by 89 percent and 88 percent of the pupils respectively. In another highly favorable response, 83 percent of the pupils agreed with the statement "Having student teachers has been beneficial to me." The statement "Student teachers seem concerned about me as an individual person" only had 62 percent agreement while only 56 percent of the pupils agreed with the statement "I feel free to discuss with student teachers personal problems that affect my schoolwork."

In yet another study concerning the attitudes that 2503 junior and senior high school pupils held about student teachers from the University of Northern Colorado, Naylor cited the following:

> Pupils generally perceived that student teachers had (1) concern for them as individuals; (2) control in the class; (3) enough opportunity to teach; (4) ability to teach; and (5) beneficial effects on pupils. However, the pupils did not feel free to discuss with student teachers personal problems that affected their school work.[27]

Other studies in the literature support the assumption that pupils taught by student teachers achieve as well as pupils taught

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[27] James Norman Naylor, "Factors for Pupils' Attitudes Toward Student Teachers on Selected Criteria," (Unpublished doctoral dissertation, University of Northern Colorado, 1973).

by regular teachers, both at the elementary level [28,29] and at the secondary level[30].

In a Mt. Pleasant Public School study of the reaction to student teaching programs of nineteen administrators, 59 teachers, 1418 pupils, and 79 parents, Barberi[31] found positive reactions toward student teachers by all four groups. The pupil and cooperating teacher groups tended to express the most positive attitudes, while administrators and non-cooperating teachers were moderately positive and parents were least positive. Pupils in grades seven through ten were most accepting of student teachers, while eleventh and twelfth grade pupils were moderately accepting. The areas of the lowest positive response concerned the student teacher's subject competence, his ability to cope with discipline problems, and over-all quality of instruction.

The role of the secondary student teacher as perceived by pupils, parents, school board members, student teachers, cooperating teachers, administrators, and college supervisors was studied by Funkhouser. From among his many conclusions, the following are closely

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[28]John A. Rutherford, "The Effect of Student Teaching Upon Pupil Achievement in Selected Fourth Grade Classrooms," (Unpublished doctoral dissertation, University of Virginia, 1967).

[29]Marlow Ediger, "The Influence of the Student Teacher on the Pupil, Academically and Socially, in Selected Elementary Grades," (Unpublished doctoral dissertation, University of Denver, 1963).

[30]Kenneth E. Fulp, "What is the Effect of Student Teaching on the Achievement of Pupils?," Bulletin No.22 of The Association for Student Teaching (Cedar Falls, Iowa: The Association, 1964),pp.161-162.

[31]Carlo C. Barberi, "A Study of the Acceptance of the Secondary Student Teaching Program as Perceived by Faculty, Administrators, Parents and Pupils in the Mt. Pleasant Public Schools, Mt. Pleasant, Michigan," (Unpublished doctoral dissertation, Michigan State University, 1969), pp.73-74.

related to the present topic:

> . . .(3) The responsibility for providing student teaching experiences has been accepted by the public schools:. . .(5) Pupils are often confused by student teachers because their discipline and grading policies and procedures may be different from the cooperating teacher's. . . . (6) Student teachers do not lose effectiveness by trying to be friendly with pupils . . . (8) Student teachers are treated as equals by their cooperating teachers and other members of the public school faculties . . .(10) Student teachers use positive reinforcement to strengthen certain pupils behaviors. . . (11) Student teachers possess certain questioning and discussion leadership skills. . .(12) The presence of a student teacher in a classroom does not mean that pupils will receive more personal attention, they do not contribute to the learning of pupils by reducing the pupils-per-teacher ratio; however, they are perceived as contributing members of the public school instructional team.[32]

Impact Study

The main concern of this section deals with those studies which made use of the Impact Study data and/or instruments.

Marcus[33] used the Impact Study data in his study. Disregarding the No Change responses from the data, he compared the positive responses to the negative responses. He found the reactions of cooperating teachers, student teachers, and cooperating school administrators all to be positive toward student teaching programs. The responses were favorable in all six of his categories: instructional activities for pupils, school activities outside the classroom,

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[32]Charles Wayne Funkhouser, "The Role of the Secondary Student Teacher as Perceived by Pupils, Parents, School Board Members, Student Teachers, Cooperating Teachers, Administrators and College Supervisors," (Unpublished doctoral dissertation, The University of Nebraska-Lincoln, 1972).

[33]Clifford M. Marcus, "Contributions of Student Teaching Programs to Michigan Cooperating Schools as Perceived by Student Teachers, Supervising Teachers, and Administrators," (Unpublished doctoral dissertation, Michigan State University, 1970).

assistance to regular staff in certain activities, effect upon the performance of cooperating teachers, staff morale, and attitude of teachers and administrators toward student teaching. He asserted that his main hypothesis that "Student teaching programs are perceived as favorable to Michigan cooperating schools" was confirmed by the data.

Veenstra used the Impact Study data in an investigation into relationships between student teaching and pupil motivation, as perceived by supervising teachers, student teachers, administrators, and pupils. He used all the student teacher (4390) and cooperating school administrator (985) data from the Impact Study. However, only the Impact Study data of the 569 cooperating teachers who worked with the Michigan State University student teachers were included in the study. In addition, 376 Grand Rapids, Michigan pupils in grades five through twelve were asked for their perception of the student teaching program and its effect upon pupil motivation.

The reported findings were

> (1) Motivation of pupils was perceived to improve significantly during student teaching programs by all four groups of respondents. Breakdown of the data from pupils and supervising teachers by level, however, showed that only at the elementary level was there a perception of significantly improved motivation during student teaching programs; . . .(2) Supervising teachers perceived benefits from student teaching programs in terms of more small group instruction, more individual attention, and introduction of new and different learning materials. They perceived discipline, however, to be somewhat poorer when student teachers were in charge. . . (3) All variables examined for relationship to motivation, based on pupil perceptions, were found to be correlated positively and significantly with motivation. .. (4) The pupils in the study perceived improvement (or increase) during student teaching programs in the following variables: a. Pupil participation in decision-making. b. Variety of procedures. c. Motivation d. Introduction of new and different learning materials.

> e. Small group work. f. Individual attention. g. Use of praise and encouragement. The pupils perceived the following variables as being poorer (or less frequent) during student teaching programs: a. Discipline. b. Teacher competence in the subject matter. c. Use of audio-visual media. d. Pupil understanding of the material. e. Knowledge of progress of the learner. . .(5) A significant positive relationship (r = .45) was found between supervising teacher perceptions of student teacher preparation and pupil motivational change.[34]

The third major study using the Impact Study data was done by Brabson. Her hypotheses were selected on the basis of the Student Teacher Questionnaire used in the collection of the Impact Study data. Therefore, the study only analyzed the responses of the 4,683 student teachers and did not analyze the data from either the cooperating teacher group or the cooperating school administrator group.

Her findings were as follows:

> (1) the presence of student teachers increased the amount of small group instruction the same as their presence did not change the amount of small group instruction; (2) the student teachers' sex, grade placement level, subject area taught, and number of contacts with their supervising teachers were significantly correlated with increases in the amount of small group instruction; (3) the presence of student teachers reduced the time that supervising teachers spent grading papers, planning lessons, and teaching classes; (4) the presence of both male and female student teachers reduced the time that supervising teachers spent planning lessons, but the reduction was greater if the student teachers were female; (5) having a student teacher meant that most supervising teachers spent some extra hours completing their student teaching-related duties; yet, no significant relationships were found between the supervising teachers' student teaching-related duties and the student teaching variables; (6) student teachers did very little direct work with parents' groups thus contributing very little to the

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[34]Lawrence E. Veenstra, "An Investigation into Relationships between Student Teaching and Pupil Motivation, as Perceived by Supervising Teachers, Student Teachers, Administrators, and Pupils," (Unpublished doctoral dissertation, Michigan State University, 1972).

> cooperating school community in this manner; (7) some student teachers supervised pupils' extra-curricular activities but their contributions through this means was minimal; and finally, (8) student teachers' contributions of instructional materials and other aids had a greater impact on the cooperating school than extra-curricular pupil work or work with parents' groups.[35]

Kaml compared the impact of selected Michigan State University elementary teacher preparation programs on cooperating schools in the areas of individualized instruction, instructional activities, contributions to the cooperating school program, additional professional activities by supervising teacher, and additional professional activities by other staff members. The Michigan State University programs compared were the Conventional Elementary Program, the Cluster Elementary Program, the Elementary Intern Program, the Experimental Elementary Education Program, and the Teacher Corps Program. The survey questionnaires (Student Teacher, Cooperating Teacher, and Cooperating School Administrator) developed by the Deans and Directors of Teacher Education Programs in Michigan to gather data for the Impact Study were used in the Kaml study. Of a possible 80 questions in each questionnaire, only 31 questions in the Student Teacher and Cooperating Teacher questionnaires and 24 questions in the Cooperating Teacher questionnaire were used to test the five hypotheses of the study. The total number of respondents for each program was (1) Conventional - 99 students, 99 teachers, 61 principals; (2) Cluster - 110 students, 18 teachers, 13 principals; (3) Elementary Intern - 67 students, 67 teachers, 44 principals; (4) Experimental - 25 students, 10 teachers, 2 principals; (5) Teacher Corps - 21 students, 18 teachers, 5 principals.

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[35] JoAnne Millie Brabson, "Impact of Student Teaching on Cooperating Schools," (Unpublished doctoral dissertation, Boston College, 1973).

The major findings of the study were:

> (1) Meaningful differences were perceived by the supervising teachers in the Experimental Program as compared to the supervising teachers in the Conventional Program in the amount of time pupils were involved in individualized instruction. (2) Meaningful differences were perceived by the student teachers in both the Elementary Intern and Teacher Corps Programs, and the principals in the Teacher Corps Program based on changes in instructional activities for the pupils when compared to the Conventional Progarm. (3) Meaningful differences were perceived by all three groups of respondents in the Experimental Program and the student teachers in the Teacher Corps Program when compared to the Conventional Program based on the contributions to the cooperating school program by the student teacher. (4) No meaningful differences were perceived between the selected teacher preparation programs and the Conventional Program in the amount of time the supervising teacher must spend on professional duties due to the presence of a student teacher. (5) Meaningful differences were perceived by the supervising teachers from the Experimental Program when compared to the perceptions of the supervising teachers in the Conventional Program in the amount of time other staff members spend on professional duties due to the presence of the student teacher.[36]

Summary

The literature reviewed as relevant to the study was organized into two areas. The main generalization which appears to run throughout most of the literature is that student teaching is the single most important experience in the teacher certification process.

The student teaching programs were viewed from the perceptions of pupils, school board members, cooperating teachers, student teachers, cooperating school administrators, university supervisors, and parents. A prevailing feeling in all of these groups indicated that student teaching programs bring many benefits to the cooperating schools.

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[36] Jerry M. Kaml, "A Comparison of Selected Michigan State University Elementary Teacher Preparation Programs Based Upon The Perception of Student Teachers, Supervising Teachers and Principals of Cooperating Schools," (Unpublished doctoral dissertation, Michigan State University, 1975).

While the evidence is impressive that the education process is greatly improved because of the presence of student teachers, the generalization can be drawn from the studies that, at least, the situation, if not improved, remains equally as good.

Some of the benefits to cooperating schools which were perceived by respondents in the various studies included better awareness by cooperating teachers; more teaching time available; new ideas, methods, and materials; more individual help; more outside help; and the opportunity to prepare and select quality teachers.

Some of the negative aspects of the student teaching programs were the subject competency of student teachers, the ability to cope with discipline problems, and the perceived slower pace in learning.

Nevertheless, the studies tended to find many more positive benefits than negative reactions accruing to the cooperating schools because of student teaching programs.

The second section of the chapter dealt with the studies which used the Impact Study data and/or materials. The findings and conclusions of these studies generally supported the studies reviewed in the first section.

From this review of the literature, a strong argument can be made that the continuing cooperation between colleges and universities and the cooperating schools in structuring the professional laboratory experience must be maintained.

CHAPTER III

CHAPTER 3

This chapter explains all the procedures used in the study including specifically (1) the collection of the data through the verification process, (2) the factor analysis methodology, and (3) the selection, naming, and analysis of the factors.

PROCEDURES, METHODS, AND TECHNIQUES

The descriptive method of research was used. The data are expressed quantitatively. All the data were collected via the questionnaire method with a return of approximately 90%. Practicing cooperating teachers, school administrators, and student teachers formed the sample for the collection of the data.

Fortunately, the data for one part of the study were available from the Impact Study mentioned earlier which was completely under the auspices of the Deans and Directors of Teacher Education in the state of Michigan. This Impact Study gathered data from:

1. 4676 student teachers enrolled in student teaching during the Fall quarter or semester of 1969 with a Michigan teacher certificate-granting institution.
2. 4554 cooperating teachers who were working with these student teachers.
3. 938 public school administrators who were responsible for both the student teachers and the cooperating teachers.

Because Central Michigan University was actively involved with the Impact Study, specific data regarding the Central Michigan University programs were available. Focusing upon those participants who were involved in the 1969 Central Michigan University professional

laboratory experience, the data represented:

1. 156 elementary half-day student teachers.
2. 65 elementary full day eight week student teachers.
3. 275 secondary student teachers.
4. 491 cooperating teachers who were working with these student teachers.
5. 113 public school administrators who were responsible for both the student teacher and the cooperating teachers.

The research instruments (Appendix A) used in the 1969 Impact Study were also used in gathering data for the 1973 Central Michigan University full semester professional laboratory experience, both in Elementary Education and Secondary Education. The population which represented the 1973 Central Michigan University programs consisted of:

1. 375 elementary student teachers.
2. 550 secondary student teachers.
3. 930 cooperating teachers who worked with these student teachers.
4. 235 public school administrators who were involved in this professional laboratory experience.[1]

In the Impact Study, IBM answer sheets (Appendix A) were numbered and color coded and then distributed to each college and university participating in the study. University Supervisors in each school were instructed to distribute and administer the instruments and the answer sheets to the appropriate people. Each student teacher was assigned the same numbered answer sheet as his cooperating teacher.

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[1]The numbers in 1973 reflect the total number of student teachers who were assigned during the Fall Semester, 1973, while in 1969, the numbers reflect only those student teachers who were assigned during the second eight weeks of the Fall Semester, 1969.

The methods of gathering data for the new full semester professional laboratory experience, both Elementary Education and Secondary Education, were adhered to as close as possible to these methods used in the Impact Study. Central Michigan University Supervisors were charged with the responsibility of distributing and administering the questionnaire (with the answer sheet), to the appropriate people. The IBM answer sheets were coded in a similar fashion to the Impact Study answer sheets (See Appendix A).

The three groups (student teachers, cooperating teachers, and school administrators) were asked to read the questionnaires and fill out the answer sheet in a manner which would eliminate comparing of answers either within a particular group or among people representing the three different groups. Once again each student teacher was assigned the same numbered answer sheet as his cooperating teacher. Both the questionnaires and the answer sheets were collected by the University Supervisor and returned to the researcher. The answer sheets were checked to ensure maximum return by the appropriate people and then the answer sheets were tabulated to allow for in-depth statistical analysis. While the study is limited in the extent of generalization to other institutions, it enables an in-depth analysis of the responses for Central Michigan University. The factors obtained by the factor analysis of the entire 1969 Impact Study responses might be used as a starting point for an institution to evaluate its Teacher Education program and particularly the field experience, since the factors represent general areas of importance for all the thirty-one universities and colleges in Michigan concerned with Teacher Education.

As a final check before all the computer cards (1969 and 1973) were submitted to the computer for factor analysis, the cards (about 30,000) were submitted to a card reader and printer. Since the 1969 set of cards had been stored and moved considerably and the 1973 set of cards had not been checked except to insure an even number of cards, it was felt that this final check would help to eliminate any erroneous data. This is extremely important because of the nature of the computer cards. Each respondent had two computer cards. Each computer card had eighty (80) slots available to be punched. The first card for each respondent contains identifying numbers in the first ten slots. The answer to questions one through sixty were then punched in slots numbered eleven through seventy. The second card for each respondent contained the same identifying numbers as the first card with responses to questions sixty-one through eighty punched in slots numbered eleven through thirty. Because of the procedure in which the computer read the computer cards, it was extremely important that all the computer cards were in the proper order and that each respondent had a set of computer cards. Also as a further check to eliminate erroneous data, any set of cards which contained more than 50% of the available answer slots blank was removed from the data base. This was necessary because from analyzing the data provided from the card reader, the author found a dichotomy existed among the responses for all groups. On the one hand, a vast majority of respondents completely answered all of the questions contained in the questionnaire. On the other hand, those who failed to answer all the questions, typically answered very few of them. Specifically this final check resulted in the removal of a number of respondents

from the data base. The table below summarizes this final check:

TABLE 1

DATA BASE FOR THE STUDY

	Gross Data	Unusable Sets	Net Data
1969 Total Administrators	938	19	919
1969 Total Cooperating Teachers	4554	73	4481
1969 Total Student Teachers	4676	51	4625
1969 C.M.U. Administrators	113	7	106
1969 C.M.U. Cooperating Teachers	491	11	480
1969 C.M.U. Student Teachers	496	11	485
1973 C.M.U. Administrators	209	6	203
1973 C.M.U. Cooperating Teachers	740	8	732
1973 C.M.U. Student Teachers	815	5	810

The data were then submitted to the computer and processed under nine separate group headings. These groups are identified as 1969 Total Administrators, 1969 Total Cooperating Teachers, 1969 Total Student Teachers, 1969 Central Michigan University Administrators, 1969 Central Michigan University Student Teachers, 1969 Central Michigan University Cooperating Teachers, 1973 Central Michigan Administrators, 1973 Central Michigan University Cooperating Teachers, and 1973 Central Michigan University Student Teachers. Each group was analyzed separately. The computer program gave the following data from each group: (1) means, (2) standard deviations, (3) correlation coefficients, (4) Eigenvalues, (5) cumulative percentage of Eigenvalues, (6) Eigenvectors, (7) factor

matrix, (8) variance of the factor matrix for each iteration cycle, (9) rotated factor matrix, and (10) check on commonalities. The data were also tabulated to give percentages for each response to each question for each group.

FACTOR ANALYSIS

Factor analysis is one of the most popular methods of statistical investigation. In most computer centers, factor analysis ranks as one of the top three methods used by researchers. The other two ranking methods are regression analysis and discriminant analysis.[2] However, popularity can never be used for justifying a method. Any method must be judged by its ability to analyze the available data. In describing the use of factor analysis, Kerlinger stated:

> If we examine empirical evidence rather than opinion, it is impossible to escape the conclusion that factor analysis is one of the most powerful tools yet devised for the design and analysis of complex areas of scientific psychological and educational concern. It is also impossible to escape the conclusion that factor analysis has great potential importance in educational research.[3]

In an early book on factor analysis, Holzinger and Harman described the nature of factor analysis:

> Factor analysis is a branch of statistical theory concerned with the resolution of a set of descriptive variables in terms of a small number of categories or factors. This resolution is accomplished by the analysis of the intercorrelation of the variables. A satisfactory solution will yield factors which convey all the essential information of the original set of variables.

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[2]Claud O. Archer and Robert I. Jennrich, "Standard Errors for Rotated Factor Loadings," Research Bulletin, (Princeton, New Jersey: Educational), p.1.

[3]Fred N. Kerlinger, Foundations of Behavioral Research, (New York: Holt, Rinehart and Winston, Inc., 1967), p.684.

> The chief aim is thus to attain scientific parsimony or economy of description.[4]

Therefore, because factor analysis is considered a "powerful tool" and because it has the ability to synthesize many variables into a few factors, this study used the method of factor analysis.

Factor analysis was developed in the early twentieth century as a mathematical model for explaining psychological theories about human ability and behavior. Its early uses were confined to psychology and, even today, some people still consider the techniques of factor analysis as a psychological theory. Dating back to 1904, Charles Spearman, generally considered the father of this method, developed "a psychological theory involving a single general factor and a number of specific factors."[5] However, speaking from a pure statistical standpoint, Harman credits Karl Pearson for setting forth the method of principal axis in a 1901 paper.[6] After 1925, and particularly in the 1930's, there was a great deal of controversy about Spearman's Two-Factor Theory.

Some experimenters were finding more than one general factor in their studies. This discovery of more than one general factor opened new horizons in the development of factor analysis. Main contributors to this early development of multiple factor analysis[7]

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[4] Karl J. Holzinger and Harry H. Harman, Factor Analysis, (Chicago: The University of Chicago, Press, 1941), p.3.

[5] Harry H. Harman, Modern Factor Analysis, (Chicago: The University of Chicago Press, 1967), p.3.

[6] Ibid.

[7] This term is now synonymous with the term factor analysis. The term was originally used to distinguish the method from Spearman's Two-Factor Method.

were Charles Spearman, Cyril Burt, Karl Pearson, Godfrey H. Thomson, J.C. Maxwell Garnett, and Karl Holzinger. However, factor analysis became popular as a research tool through the efforts of L.L. Thurstone, who began experimenting with the method in the early 1930's.[8]

During the next 20 years many individuals experimented with various methods regarding factor analysis. A great variety of papers were published with each individual urging his one method as being better than any other method. Speaking to this development in the growth of factor analysis, Harman stated:

> However, with a fuller understanding of the salient features of each method, and with the increased efficiency computations, the differences among the various methods no longer loom so ominously, and the followers of a particular approach are much more tolerant of the adherents of an alternative scheme.[9]

Any study involving the use of factor analysis will normally be divided into three major areas of concern: (1) what method of factor analysis to use, (2) when to stop factoring, and (3) when are the factor loadings significant.

This study used the principal-components solution and the varimax rotation of the factor matrix. This method is generally supported today as the most important and useful of factor analysis. Cooley and Lahnes have stated that, "Students of factor analysis have recognized for some time that the principal-components solution is the most desirable way to obtain the intital factor structure of a correlation matrix."[10] In early materials, this method was considered

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[8] Ibid.

[9] Ibid., p.10.

[10] William W. Cooley and Paul R. Lahens, Multivariate Procedures for the Behavioral Sciences (New York: John Wiley and Sons, Inc., 1962), p.157.

good; but because of the amount of time involved in the calculations, it was not highly recommended. Holzinger and Harman spoke to this point in 1941 when they stated:

> The labor of computation in the direct principal-factor solution increases very rapidly with the number of variables and factors . . . In case a machine is devised which will simplify the type of multiplication involved, the direct principal-factor method will then be appropriate for large sets of variables.[11]

Cooley and Lahnes expanded this concept by acknowledging that "principal-components analysis is a generally useful procedure whenever the task is to determine the minimum number of independent dimensions needed to account for most of the variance in the original set of variables."[12]

In urging the use of the principal-components method, Kerlinger wrote:

> The principal-factors method is mathematically satisfying because it yields a mathematically unique solution of an R matrix. Perhaps its major solution feature is that it extracts a maximum amount of variance as each factor is calculated. In other words, the R matrix is expressed in the smallest number of factors by the method. Its principal shortcoming in the past has been its computational laboriousness. . . It is strongly recommended, therefore, that social, scientific, and educational researchers use the principal-factors method.[13]

Still another authority, while citing a concern for the principal-components solution, stated:

> However, the most important observation which can be made is that the correlation matrices resulting from non-psychological areas of science, cannot,

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[11]Holzinger, Harman, Op. Cit., pp.174-175.

[12]Cooley and Lahnes, Op. Cit., p.151.

[13]Kerlinger, Op. Cit., p.661.

> in general, be analyzed by all factoring methods. The researcher, in non-psychological areas, would probably be well advised to select a principal-components solution, even though it may not result in an optimum simple structure.[14,15]

Finally, the leading authority today, Harry H. Harman, simply asserts that, "When a high speed electronic computer is available, there is no need to accept a substitute for the principal-factors solution."[16]

Therefore, because the principal-components method is appropriate for large sets of variables, because the method expresses the R matrix in the smallest number of factors, and because authorities in the field recommend the method as the most appropriate, this study used the principal-components method.

The second area of concern in factor analysis is when to stop factoring; in other words, when do you know when you have the optimum number of factors? Unfortunately, the question is one for which there is still no definite answer. Addressing this point Cooley and Lahnes wrote:

> One continuing concern in factor analysis is the problem of how many factors to reserve for further analysis. There seems to be little agreement on the question. Statistical considerations alone are not completely satisfactory since the number of significant factors then depends on the size of the sample . . .Kaiser[17] has made a very practical suggestion

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[14] Simple structure was first defined by L.L. Thurstone. Basically, maximum simple structure can be defined as obtained when each variable loads on only one of the factors and all of its other loadings are zero.

[15] Robert H. Thorndike, "Methods of Factor Extraction and Simple Structure of Data From Diverse Scientific Areas," (Paper presented at Annual Meeting of the Western Psychological Association, San Francisco, California, April 1971), p.8.

[16] Harman, Op. Cit., p.177.

[17] Kaiser's method of factor analysis is referred to as "Little Jiffy" which is defined as principal components with associated eigenvalues greater than one followed by normal varimax rotation.

> for deciding how many factors to use. His recommendation is to use those factors with corresponding latent roots greater than one.[18]

Harman supports this recommendation when he states that, "This conclusion also agrees with the criterion of retaining a number of factors equal to the number of principal components whose eigenvalues are greater than one."[19]

Although Carver and Liberty are critical of the criterion of eigenvalue 1.0, they feel that there are areas for which it is acceptable.

> The use of a stop-criterion of eigenvalue 1.0 is seen as unnecessarily restrictive . . . Work in the field has been "blind" adoption of the eigenvalue 1.0 criterion with little consideration for the purpose of factor studies. From the viewpoint of determining general laws of behavior, the eigenvalue 1.0 criterion with individual student responses seems appropriate.[20]

Therefore, the factoring of the R matrix was stopped when the eigenvalues became less than 1.0. This procedure is recommended by leading authorities like Harman and Kaiser and was used in almost all the 65 factor analysis studies reviewed by this author.

The final area of great concern in factor studies involves the question of determining when the factor loadings are significant. In 1938, speaking basically from a psychological viewpoint, Thurstone stated:

> We have not regarded a projection as significant in naming a factor unless it is as large as .40. The naming of a factor cannot be made with confidence unless the projections are as large as .50 or .60 so that

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[18]Cooley and Lahnes, Op. Cit., p.160.

[19]Harman, Op. Cit., p.162.

[20]Donald W. Carver and Paul G. Liberty, "A Comparison of Two Approaches in Factor Studies of Student Ratings of Courses and Instructors," (Paper presented at American Educational Research Association, February 1973), p.14.

> the factor accounts for a fourth or a third of the variance of a test. Confidence in naming a factor is also determined by the number of tests that have significant projections of .40 or higher on the factors.[21]

While he argued for this level of factor loading, Thurstone includes tables of certain factors which include tests having loadings below .40.[22] This inconsistency runs throughout all of the researched materials and studies. Also in an early factor analysis book, Holzinger and Harman wrote:

> For example, if a particular residual is just twice its standard error . . .it can safely be said that this residual is probably significantly different from zero . . . For such investigation, then, the level of significance should be taken to be at least three times the standard error.[23]

Although arguing for this type of statistical method, Holzinger and Harman, in a later chapter, are unsure of the significance factor loading in a particular analysis. Although conceding that a loading of .290 is significant, they state that, "Those variables having definitely significant weights, say, greater than four-tenths, are considered."[24]

From these early recommendations, the problem of significant factor loadings has grown into a mass confusion. Most factor studies reviewed by this author, both in education and out, were guided by the so-called "rule of thirty." What these studies accepted as significant was any loading of a variable on a factor which had a numerical value of .30 or greater (absolute). The listing of these 65 studies

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[21] Louis L. Thurstone, Primary Mental Abilities (Chicago: The University of Chicago Press, 1938), p.79.

[22] Ibid., pp.79, 82, 84, 85, 86, 88

[23] Holzinger and Harman, Op. Cit., p.131.

[24] Holzinger and Harman, Op. Cit., p.229.

would take pages. They just give one the perspective of what is generally done in the field.

While the "rule of thirty" has been blindly adopted by the vast majority of researchers, other methods of determining the significant factor loading have been used. Holdridge used the criterion that, "For an item to be considered loaded on a resulting factor, a loading of .60 or higher was required with no loading of .40 or higher on any other factor."[25] There was no explanation for this procedure although this is toward simple structure. Another study used the level of .42 because it was the minimum value at which the items did not overlap on the factors.[26] Here again the criterion for significance is toward simple structure.

Harman has used a different procedure in finding the significant loading of items on a particular factor. He has developed a table which gives the standard errors of a factor coefficient.[27] A researcher must know what the average correlation of his correlation matrix is and also the number of cases involved in the correlation matrix. The table gives the standard error of the factor coefficient for all studies where the number of variables range between 20 and 500 and the average correlations range between .10 and .75. If a factor study has less variables than 20 or more than 500 and/or average correlation below .10 or higher than .75, Harman

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[25]William E. Holdridge, "Dimensions of Teacher Credibility and Faculty-Course Evaluation," (Paper presented at Annual Meeting of the Speech Communication Association, Chicago, December 1972), p.6.

[26]Albert H. Yee and Benjamin Fruchter, "Factor Content of the Minnesota Teacher Attitude Inventory," American Educational Research Journal, VIII (January, 1971), p.121.

[27]Harman, Op. Cit., p.435.

has given the formula for determining the standard error of the factor coefficient $\left[\sigma a = \frac{\frac{1}{2}(3/r - 5r + 4r^2)}{N}\right]$. As one can see from the formula, low correlation ratios and/or a large or small number of cases will cause the standard error to fluctuate greatly from one extreme to another. Once the standard error has been determined, Harman would multiply the standard error by two or three to give needed direction toward the exact cut-off for a significant factor loading.

As Holzinger and Harman stated, "By knowing the general direction of the discrepancies in the approximations (of the standard error), the investigator can make due allowances in setting a level of significance."[28]

However, Kerlinger cautioned, "Unfortunately there is no generally accepted standard error of factor loadings. A crude rule is to use the standard error of _r_, or easier, to find the _r_ that is significant for the N of the study . . . . Some factor analysis in some studies do not bother with loadings less than .30 or even .40. Others do."[29] Jennrich broadened this concern by stating, "The whole area of standard errors in factor analysis seems to be developing too rapidly to invest a great deal of effort in problems of numerical precision at this time."[30]

In the only study the author found that used the Harman procedure entirely, Bell, studying student teacher perceptions, reported

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[28]Holzinger and Harman, Op. Cit., p.131.

[29]Kerlinger, Op. Cit., p.654.

[30]Robert I. Jennrich, "Simplified Formulas for Standard Errors in Maximum Likelihood Factor Analysis," Educational Testing Service, (Princeton, New Jersey), p.14.

finding the critical value at the .05 level of significance for factor loading.[31] His factor loadings were all higher than .30.

Many decisions made in factor analysis have been based upon the best available research at a particular point in time. As has been stated earlier in this chapter, computers have greatly expanded the methodologies available in the field of factor analysis.

In summation, the author has chosen as the procedure used in this investigation the principal-components method with a varimax rotation. This method has the empirical support of all noted authorities in the factor analysis field. The rotation of factors has been stopped when the eigenvalues of each particular group are less than 1.0. Once again the acceptance of this method is well documented by the experts. The method chosen for determining the significant factor loadings for each group can best be described as a combination of the Harman procedures and an attempt to establish simple structure. The author followed the Harman procedure by finding the average correlation of each group's correlation matrix. By using the formula given above, a standard error was derived for each group. Using the directionality, as suggested earlier by Holzinger and Harman, and keeping a concern for simple structure, significant factor loadings for each group were determined.

As mentioned earlier in this chapter, since this study dealt with nine distinct groups representing administrators, cooperating teachers and student teachers, the above procedures were applied to each group individually. Therefore, for each group, an average correlation of its correlation matrix was determined, the total number

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[31]Michael L. Bell, "Personalities and Perceptions of Student Teaching," U.S. Department of Health, Education, and Welfare, Office of Education, 1971, p.4.

of cases in each group was determined, the standard error of each group was determined based upon the Harman formula, and finally a significant factor loading for each group was determined.

Table shows the relationship within each individual group to the average correlation of that group, the numbers of cases of that group, the standard error of that group, and the significant loading of that group.

TABLE 2

Average correlation, number of cases, standard error, and significant loading for nine distinct groups of respondents

Group	r	N	a	Loading
Total Administration 1969	.04322	919	.125	.390
CMU Administration 1969	.04109	106	.409	.410
CMU Administration 1973	.05296	203	.258	.400
Total Coop. Teach. 1969	.03145	4481	.072	.360
CMU Coop. Teach. 1969	.03477	480	.210	.420
CMU Coop. Teach. 1973	.03338	732	.170	.380
Total Stu. Teach. 1969	.03690	4625	.065	.320
CMU Stu. Teach. 1969	.02887	485	.229	.340
CMU Stu. Teach. 1973	.03478	810	.160	.380

Using the standard error as a guide, the author was able to focus upon the significant factor loading for each group. Attempting to find these loadings without the suggestions from the Harman procedures would have been an arduous task and might have resulted in blind acceptance of the "rule of thirty."

Once these procedures were established, variables for each group were assigned to a particular factor of that group based upon the significant factor loading for that group. The results of these determinations are presented in Tables 44 through 52 in Appendix B. In

these tables, each variable (questions one through eighty in the research instrument) is identified with the factor on which it has a significant loading. When the variable has no significant loading upon a particular factor, the factor column is blank.

The investigation now concerned itself with identifying factors which have common variables within each group (administrators, cooperating teachers, and student teachers). For a factor or factors to be considered common among the CMU 69 and CMU 73 administration group, 60% of the variables had to appear in each factor and/or combination of factors. In most instances these same variables appeared in the Total 69 administration group also. Table 3 shows the factors with variables common among the administration group.

Demographic factors are identified in Tables 3 through 5 as those factors which have variables loaded on them which elicit information not directly related to program or curricular items within the public schools such as sex, community size, years of experience, etc.

TABLE 3

Administration Group

CMU 69 (Factor - Variables)		CMU 73 (Factor - Variables)		Total 69 (Factor - Variables)	
1	3, 18-20	7	15, 18-20	17	3, 18-20
2	40-47	3	41-47	3	40-43. 45-47
3	62, 64-69	2	62, 64-71	4	61, 62, 64-66,68, 69
4	28-31, 38	24	27-30, 38	1	27-31, 38
* 6	3,7,8,10,11	* 4	3,7,8,10-12	* 2	3,7,8,10,11
* 8	4,12	* 9	4, 12	* 8	4, 12, 74
* 9	5, 6	* 8	5, 6	* 9	5, 6
10	22-24	11	13, 22-24	11	13, 22-24
* 11	1	* 19	1	* 14	1, 2
15	13, 14	16	13, 14		
17	71-73	10	70-73		
21	25, 26	13	2, 25, 26	6	73

TABLE 3 (cont'd.)

CMU 69 (Factor - Variables)	CMU 73 (Factor - Variables)	Total 69 (Factor - Variables)
24 48-50	12 45, 48-50	10 14, 25, 26
23 37, 52, 55,56	5 51-56	13 44, 49, 50
26 53, 54		5 51-56
7 57-60	1 34, 35, 39, 57-60, 76	7 57-60
14 34, 35, 39, 79		

*Demographic factors

The same 60% criterion for a common factor and/or combination of factors was applied to the CMU 69 and CMU 73 cooperating teacher group. Once again the Total 69 cooperating teacher group had similar common factors. Table 4 shows the factors with variables common among the cooperating teacher group.

TABLE 4

Cooperating Teacher Group

CMU 69 (Factor - Variables)	CMU 73 (Factor - Variables)	Total 69 (Factor - Variables)
2 35, 36, 44	17 35, 36	———
3 61-63, 68	10 62-64, 68, 69	11 61-63, 66, 68
* 4 2, 11, 31, 49	20 2, 11, 31, 49	4 2, 11, 13, 25, 31, 49
5 50-53	5 50-53	5 50-53
6 15, 16, 20-23, 60	7 15, 16, 20-23, 60	7 15, 16, 20-23,60
* 7 4-6, 9	* 8 4-6	* 6 4-6
9 37, 38, 41, 43	2 37, 38, 41, 43	2 37, 38, 41, 43
10 57-59	3 57-59	3 56-59, 67
11 45, 71	22 45, 71	8 45, 71
13 17, 18	11 17, 18	12 17, 18
* 17 12, 13	* 6 12, 13	* 14 12, 13
19 24, 25	19 24, 25	16 24, 25
24 39, 40	25 70, 73-75, 80	18 39, 40
26 73-75	1 7, 32-34, 79, 19, 26, 27, 28, 75	17 73-75, 80
1 7, 32-34, 79	14 3, 5	1 7, 32-34, 79, 14, 19, 26-28, 75
23 19, 27, 28		
12 3, 5, 76, 77	18 76-78	10 3, 76-78

* Demographic factors

As was done with the above two groups, the student teaching group had the same 60% criterion applied to each factor. As in the previous two groups, the factors were normally similar over all three student teacher groups. Table 5 shows the factors with variables common to the group.

TABLE 5

Student Teaching Group

CMU 69 (Factor - Variables)		CMU 73 (Factor - Variables)		Total 69 (Factor - Variables)	
3	50-53	10	50-53	1	50-53
4	61-63, 68	4	61-63, 68	4	61-63, 68
* 5	11, 25, 31, 47, 49	* 2	11, 25, 31, 47, 49	* 2	11, 13, 25, 31, 47, 49
6	32-34	8	32-34	8	32-34
7	45, 71	6	45, 71	6	45, 71
8	55, 56	11	55, 56	11	55, 56
9	70, 76, 77	13	76, 77	12	76, 77
10	17, 18	9	17, 18	10	17, 18
12	39, 40	19	39, 40		
14	64, 66, 67	21	64, 66, 67	18	64, 66, 67
15	29, 46, 69, 72	16	29, 46, 72	16	29, 30, 46, 72
19	38, 41, 43, 44	1	38, 41, 43	7	37-41, 43, 44
* 24	1, 2, 6	* 7	1, 3, 6	* 9	1, 4, 6
27	57-59	3	57-60	13	57-59

*Demographic factors

Thus, factors were identified which would give a basis of comparison between the 1969 Central Michigan University student teaching program and the 1973 Central Michigan University student teaching program. The demographic factors identified in the preceding Tables 3, 4, and 5 were eliminated from consideration in the study. This exclusion specifically removed four of fifteen factors from the cooperating school administrators, four of sixteen factors from the cooperating teachers group, and two of fourteen factors from the student teachers group.

Generally, these factors and their variables were concerned with information about the sex and age of an individual, the size of the community, years of experience, length of time working in present building, subject or grade level, class standing and grade point average, and an analysis of these factors was beyond the scope of the present study.

The remaining factors in each group in Tables 3, 4, and 5 were condensed into twelve general factors in the cooperating teachers group, eleven general factors in the cooperating school administrators group, and twelve general factors in the student teachers group.

The naming of the factors in each particular group is a very personal matter. As mentioned previously, since the fundamental purpose of factor analysis is to compress a large set of variables into a smaller set of factors, the names attached to the new factors should give the reader a sense of immediate understanding. Hopefully, the author has reached the very difficult aim of synthesizing a vast amount of data into fairly simplistic terms. Readers or other writers are completely free to rename the factors to suit their own purposes.

As Holzinger and Harman stated:

> "the particular name by which a factor is designated, however, should not raise an issue for dispute. If another investigator chooses to call these factors by other names, he is free to do so. The naming of factors is not a problem of factor analysis, which is a branch of statistics, but some descriptive names may be highly desirable in a particular subject matter for purposes of classification."[32]

The following Tables 6, 7, and 8 are presented to provide a clearer understanding of the condensing and naming of the general factors in each group. The general factor names are listed as sub-titles

[32]Karl Holzinger and Harry Harman, Factor Analysis: A Syntheses of Factoral Methods (Chicago: University of Chicago Press, 1941), p.152.

under the appropriate hypothesis statements in Chapter I.

TABLE 6

Cooperating Teacher Group

Hypothesis Factor	General Factor Name	Factor # CMU 1969	Factor # CMU 1973	Factor # Total 1969
I-A	Cooperating Teacher Utilization of Student Teacher	2	17	None
I-B	Cooperating Teacher Conference with Student Teacher	3	10	11
I-C	Staff Utilization in Non-Instructional Areas	5	5	5
I-D	Individualized Instruction	6	7	7
I-E	Additional Participation of Cooperating Teacher	9	2	2
I-F	Cooperating Teacher Instructional Change	10	3	3
I-G	Student Teacher Substitution	11	22	8
I-H	Cooperating Teacher Assistance	13	11	12
I-I	Non-Instructional Supervision	19	19	16
I-J	Cooperating Teacher Professional Development	24	16	18
I-K	Acceptance and Influence of Student Teacher	26	25	17
I-L	Student Teacher Preparation	1,23	1	1

TABLE 7

Cooperating School Administrator Group

Hypothesis Factor	General Factor Name	Factor # CMU 1969	Factor # CMU 1973	Factor # Total 1969
II-A	Non-Instructional Contributions by the Student Teacher	1	7	17
II-B	Special University Service Availability to Staff	2	3	3
II-C	Administrator Work Load Change in Counseling and Communication	3	2	4
II-D	Pupil Instructional Activity Change	4	24	1
II-E	Instructional Input of Student Teachers	10	11	11
II-F	Student Teacher Academic Program	15	16	None
II-G	Administrator Utilization of Released Time of Cooperating Teacher, Student Teacher, and Staff	17	10	6
II-H	Teaching Utilization of Student Teachers	21	13	10
II-I	Normal University Service Availability to Staff	24	12	13
II-J	Additional Participation of Cooperating Teacher	23,26	5	5
II-K	Student Teacher Effect on Pupils, Staff, and Parents	7,14	1	7

TABLE 8

Student Teacher Group

Hypothesis Factor	General Factor Name	Factor # CMU 1969	Factor # CMU 1973	Factor # Total 1969
III-A	Staff Utilization in Non-Instructional Areas	3	10	1
III-B	Cooperating Teacher Conferencing with Student Teacher	4	4	4
III-C	Instructional Input of Student Teacher	6	8	8
III-D	Student Teacher Substitution	7	6	6
III-E	Cooperating Teacher Job-Related Time Change	8	11	11
III-F	University Supervisor Assistance	9	13	12
III-G	Cooperating Teacher Individiualized Instructional Change	10	9	10
III-H	Cooperating Teacher Professional Development	12	19	None
III-I	Cooperating Teacher Responsibility Changes	14	21	18
III-J	Student Teacher School and Community Involvement	15	16	16
III-K	Additional Participation of Cooperating Teacher	19	1	7
III-L	Cooperating Teacher Instructional Change	27	3	13

CHAPTER IV

CHAPTER 4

PRESENTATION AND ANALYSIS OF THE DATA

INTRODUCTION

Although the present study specifically sought to compare the 1969 Central Michigan University groups to the 1973 Central Michigan University groups, the 1969 Total groups' data are also listed in Chapter III and the material to follow in Chapter IV. Two prime reasons for including these data are: (1) in the case of the 1969 Total factors in Chapter III, the reader can see great similarities in the factor solution irrespective of the particular group--these similarities lend greater credibility to the factor solution; (2) in the use of the 1969 Total responses to particular variables within a particular factor as presented in the findings of Chapter IV, the reader is able to use the Total percentages as a norm to be used in the comparison between the 1969 Central Michigan University student teaching program and the 1973 Central Michigan University student teaching program. Thus, if the Total 1969 percentages are considered as the State norm, any differences between the 1969 and 1973 Central Michigan University programs will be better understood in comparison to that norm.

The organization of Chapter IV will follow the pattern of the hypothesis statements set forth in Chapter I. The tables contained within the main body of the chapter include percentage responses of each distinct group (cooperating teacher, cooperating school administrators, and student teachers). Within each distinct group are the percentage responses of the 1969 Central Michigan University group, the percentage responses of the 1973 Central Michigan University

group, and the percentage responses of the 1969 Total group when applicable. These percentage responses will correspond to a particular variable within a particular factor, (i.e., A- Factor Name, A1- variable, A2- variable, A3- variable, etc.).

Tables which list the Chi Square values, the degrees of freedom, and the level of significance for each variable for each distinct group are included in Appendix C.

Hypothesis I-A

There is no significant difference between the impact of the 1969 Central Michigan University Student Teachers and the 1973 Central Michigan University Student Teachers upon the cooperating school districts as viewed by their respective cooperating teachers using the factor - Cooperating Teacher Utilization of Student Teacher.

TABLE 9

Cooperating Teacher percentage responses to the variables within the Factor I-A - Cooperating Teacher Utilization of Student Teacher.

A1 - Question #35 hours per week student teacher teaches[1]

	Less than 1	1 - 5	6 - 10	11 -15	16 -20	More than 20
CMU 1969	.4	12.2	25.3	25.9	22.9	12.2
CMU 1973	.3	9.8	17.0	30.2	25.9	15.5

A2 - Question #36 released instructional hours of cooperating teacher

	Less than 1	1 - 5	6 - 10	11 -15	16 -20	More than 20
CMU 1969	14.1	36.3	25.5	12.9	5.7	4.1
CMU 1973	9.3	33.2	29.7	18.2	6.7	1.9

[1]The questions are paraphased for brevity. The actual question can be seen in Appendix A.

Factor A has two variables which are listed in the Table under A1 and A2. The 1969 Total is not listed since no corresponding factor was available. The first variable is question 35 which relates to how many hours per week the student teacher teaches the cooperating teacher's classes. Table A1 shows that the 1973 group taught more hours per week than the 1969 group with three to five percent more 1973 respondents at each of the three highest levels. The difference in responses between the 1969 group and the 1973 group was significant at the .01 level (X^2=16.63, df 5).

Table A2 lists the second variable as question 36 which reports the number of hours per week the cooperating teacher was able to leave the classroom while the student teacher taught. The 1973 group allowed more released time at the 6-10, 11-15, and 16-20 hour levels. The 1969 group was highest at both extremes, 0-5 and more than 20 hours. The difference in responses was significant at the .005 level (X^2=19.55, df 5).

Because the difference in responses between the 1969 group and the 1973 group were significant at or above the .05 level of confidence for both variables, Hypothesis I-A is rejected. Therefore, it is concluded that the cooperating teachers in 1973 did utilize their student teachers differently from the cooperating teachers in 1969.

Hypothesis I-B

There is no significant difference between the impact of the 1969 Central Michigan University Student Teachers and the 1973 Central Michigan University Student Teachers upon the cooperating school districts as viewed by their respective cooperating teachers

using the factor - Cooperating Teacher Conference with Student Teacher.

TABLE 10

Cooperating Teacher percentage responses to the variables within the Factor I-B - Cooperating Teacher Conference with Student Teacher.

B1 - Question #62 Hours spent evaluating student teacher

	Great many hours	Some extra hours	No extra hours
CMU 1969	5.3	85.5	7.8
CMU 1973	6.7	84.4	8.6
Total 1969	6.0	84.3	8.1

B2 - Question #63 Hours spent in non-student teaching conferences

	Great many hours	Some extra hours	No extra hours
CMU 1969	4.1	76.5	18.6
CMU 1973	11.4	73.9	14.6
Total 1969	6.7	73.6	18.2

B3 - Question #68 Hours spend in telephone or other conferences

	Great many hours	Some extra hours	No extra hours
CMU 1969	2.4	43.3	53.5
CMU 1973	3.4	50.2	46.2
Total 1969	3.0	50.1	45.3

The three variables connected with this factor are questions 62, 63, and 68 listed under Tables B1, B2, and B3.

Question 62 relates to hours spent evaluating the student teacher. Although slightly more time was spent in this activity by the 1973 group than by the 1969 group, the difference in responses was not significant at the .05 level[2].

Casual or personal conversations was the topic of question 63. The 1973 group spent much more time engaged in this activity than did the 1969 group with the difference in responses found to be signifi-

[2]Chi-square values and degrees of freedom are reported in Appendix C.

cant at the .001 level (X^2=20.58, df 2).

Finally, question 68 dealt with telephone or other conferences. Here again, there was a time increase by the 1973 group with the difference in responses between the groups significant at the .05 level (X^2=6.83, df 2).

In each variable in this factor at the extreme of Great Many, the 1969 group falls below the Total 1969 group and the 1973 group exceeds the Total 1969 group.

Because significant differences between the 1969 and the 1973 groups were found in two of the three variables, Hypothesis I-B is rejected. Therefore, it is concluded that the 1973 cooperating teachers spend more time in conferencing situations with their student teachers than did the 1969 cooperating teachers.

Hypothesis I-C

There is no significant difference between the impact of the 1969 Central Michigan University Student Teachers and the 1973 Central Michigan University Student Teachers, upon the cooperating school districts as viewed by their respective cooperating teachers, using the factor - Staff Utilization in Non-Instructional Areas.

TABLE 11

Cooperating Teacher percentage responses to the variables within the Factor I-C - Staff Utilization in Non-Instructional Areas.

Ci - Question #50 Extent of staff visitation

	Many times	Some extent	Not at all	Don't know
CMU 1969	2.0	22.2	55.3	18.8
CMU 1973	3.1	28.0	49.8	18.9
Total 1969	1.9	23.5	51.3	21.4

TABLE 11 (cont.)

C2 - Question #51 Extent of staff committee work

	Great deal	Some extent	Not at all	Don't know
CMU 1969	.4	24.9	55.3	17.8
CMU 1973	1.5	26.9	52.0	19.6
Total 1969	1.5	23.3	52.2	21.0

C3 - Question #52 Extent of staff research

	Great deal	Some extent	Not at all	Don't know
CMU 1969	2.0	21.6	51.8	22.7
CMU 1973	2.2	23.8	48.4	25.6
Total 1969	2.0	20.5	49.0	26.5

C4 - Question #53 Extent of staff professional reading or writing

	Great deal	Some extent	Not at all	Don't know
CMU 1969	2.7	23.1	49.0	23.9
CMU 1973	1.9	24.9	45.6	27.5
Total 1969	2.2	21.6	45.6	28.6

Questions 50, 51, 52, and 53 represent the variables for this factor and are listed as C1, C2, C3, and C4 in the Table. All of the questions deal with activities staff members might engage in because of the presence of student teachers in the building. Question 50 relates to staff visitations in other classrooms or schools, while committee work of staff members is the concern of question 51. Research and professional reading or writing of staff members represent the main topic of questions 52 and 53. While there are some variations between the 1969 and the 1973 groups, no significant differences in responses were found on any of the four variables in this factor. Therefore, Hypothesis I-C was accepted. It was concluded that cooperating school staff functioned in the above areas basically the same in 1973 as they did in 1969.

Hypothesis I-D

There is no significant difference between the impact of the

1969 Central Michigan University Student Teachers and the 1973 Central Michigan University Student Teachers, upon the cooperating school districts as viewed by their respective cooperating teachers, using the factor - Individualized Instruction.

TABLE 12

Cooperating Teacher percentage responses to the variables within the Factor I-D - Individualized Instruction.

D1 - Question #15 Individual help by cooperating teacher

	Much more than usual	Somewhat more	About same	Somewhat less	Much less
CMU 1969	16.7	34.9	27.6	14.1	5.7
CMU 1973	17.8	36.0	27.9	11.5	6.8
Total 1969	16.9	35.9	30.1	11.1	4.7

D2 - Question #16 Individual help by cooperating teacher during non-class hours

	Much more than usual	Somewhat more	About same	Somewhat less	Much less
CMU 1969	8.8	29.4	52.7	5.3	1.8
CMU 1973	12.9	29.1	53.2	3.0	1.2
Total 1969	9.4	29.1	54.4	3.9	1.1

D3 - Question #20 Small group instruction

	Much more	Somewhat more	No change	Somewhat less	Much less
CMU 1969	14.7	38.6	39.6	4.7	1.4
CMU 1973	17.1	40.2	38.2	3.8	.4
Total 1969	15.4	38.6	40.2	4.0	.5

D4 - Question #21 Make-up work

	Much greater	Somewhat greater	No change	Somewhat less	Much less
CMU 1969	9.4	32.9	51.6	3.5	.8
CMU 1973	10.7	32.0	55.0	1.5	.3
Total 1969	10.1	33.7	51.1	2.4	.5

D5 - Question #22 Follow up of exams

	Much better	Somewhat better	No change	Somewhat poorer	Much poorer
CMU 1969	6.1	27.6	58.2	3.7	.6
CMU 1973	10.0	27.9	57.7	2.5	.1
Total 1969	8.5	26.6	56.4	3.5	.3

TABLE 12 (cont.)

D6 - Question #23 Individual attention to pupils

	Much more	Somewhat more	No change	Somewhat less	Much less
CMU 1969	15.3	50.2	26.7	5.7	.8
CMU 1973	22.7	51.2	23.1	2.6	.1
Total 1969	18.5	52.4	23.4	3.5	.5

D7 - Question #60 Individual help by cooperating teacher

	Increased great deal	Increased to some extent	Remained same	Reduced to some extent	Reduced great deal
CMU 1969	15.5	45.1	22.7	12.4	3.3
CMU 1973	17.2	45.3	22.7	11.2	2.6
Total 1969	15.7	45.0	25.4	10.5	1.7

Questions 15, 16, and 60 were all concerned with the extent of individual help or counseling provided by the cooperating teachers to pupils. In each instance, the 1973 group showed an increase over the 1969 group in the amount of time provided to individual pupils. However, the differences in responses on each question were not significant at the .05 level.

Questions 20, 21, and 22 were concerned with instructional activity changes in the areas of small group instruction, make-up work and follow up of exams respectively. Once again, in each instance, the 1973 group showed an increase over the 1969 group in the amount of time provided in each area. However, the differences in responses on each question were not significant at the .05 level.

The instructional activity change in individual attention to, or tutoring of, pupils was the concern of question 23. Again, the 1973 group showed an increase over the 1969 group in the amount of time spent in this area. The difference in responses was significant at the .001 level (X^2=20.21, df 4).

In each variable in this factor at the extreme of Much More or

Much Better, the 1969 group falls below the Total 1969 group and the 1973 group exceeds the Total 1969 group. Variations were present in every variable between the 1969 and the 1973 groups.

Hypothesis I-D is accepted because the difference in responses was significant for only one of the seven variables. This acceptance is based upon the criterion statement (Chapter I) that one-third or more of the variables within a factor had to show significance for the hypothesis to be rejected.

Hypothesis I-E

There is no significant difference between the impact of the 1969 Central Michigan University Student Teachers and the 1973 Central Michigan University Student Teachers, upon the cooperating school districts as viewed by their respective cooperating teachers, using the factor - Additional Participation of Cooperating Teacher.

TABLE 13

Cooperating Teacher percentage responses to the variables within the Factor I-E - Additional Participation of Cooperating Teacher.

E1 - Question #37 Visitation to other classrooms

	Great deal	To some extent	Not at all
CMU 1969	2.4	44.1	52.7
CMU 1973	4.8	48.3	46.9
Total 1969	3.2	40.6	54.8

E2 - Question #38 Committee work

	Great deal	To some extent	Not at all
CMU 1969	9.4	47.8	41.8
CMU 1973	10.7	50.8	38.2
Total 1969	9.1	48.5	41.0

TABLE 13 (cont.)

E3 - Question #41 Working with staff

	Great deal	To some extent	Not at all
CMU 1969	11.4	57.3	29.6
CMU 1973	17.4	61.1	21.3
Total 1969	14.6	57.5	26.2

E4 - Question #43 Assisting principal and staff

	Great deal	To some extent	Not at all
CMU 1969	6.7	54.1	38.2
CMU 1973	7.7	59.1	33.0
Total 1969	7.7	55.1	35.5

The four variables that make up this factor are concerned with additional activities the cooperating teacher engaged in while the student teacher was teaching. Specifically, question 37 dealt with visitation in other classrooms or schools, question 38 dealt with committee work with pupils or staff, question 41 dealt with work with staff or department, and question 43 dealt with assisting the principal or staff.

While questions 38 and 43 show some variations between the 1969 and the 1973 groups, no significant differences in responses were found on these two variables. The variations present between the two groups in question 37 were sufficient so that the difference in responses was significant at the .05 level (X^2=7, df 2). The difference in responses between the two groups to question 41 was significant at the .001 level (X^2=15.45, df 2). As in previous factors, most of the CMU 1969 responses fell on one side of the Total 1969 responses while the CMU 1973 responses fell on the opposite side.

Hypothesis I-E is rejected because significant differences were found in two of the four variables. Therefore, it is con-

cluded that the 1973 cooperating teachers spent more time working with and visiting staff members than did the 1969 cooperating teachers.

Hypothesis I-F

There is no significant difference between the impact of the 1969 Central Michigan University Student Teachers and the 1973 Central Michigan University Student Teachers, upon the cooperating school districts as viewed by their respective cooperating teachers, using the factor - Cooperating Teacher Instructional Change.

TABLE 14

Cooperating Teacher percentage responses to the variables within the Factor I-F - Cooperating Teacher Instructional Change.

F1 - Question #57 Teaching

	Increased great deal	Increased some extent	Remained about same	Reduced some extent	Reduced great deal
CMU 1969	1.0	9.0	14.5	47.3	27.3
CMU 1973	1.2	8.3	13.5	46.6	30.2
Total 1969	1.5	8.0	15.6	50.4	23.2

F2 - Question #58 Lesson planning

	Increased great deal	Increased some extent	Remained about same	Reduced some extent	Reduced great deal
CMU 1969	4.5	20.4	30.0	31.2	13.1
CMU 1973	6.4	16.3	29.8	34.9	12.3
Total 1969	5.2	23.2	32.7	29.3	8.1

F3 - Question #59 Paper grading

	Increased great deal	Increased some extent	Remained about same	Reduced some extent	Reduced great deal
CMU 1969	1.6	2.7	23.9	45.5	23.5
CMU 1973	1.0	4.9	24.1	44.2	24.6
Total 1969	2.3	4.8	24.1	46.8	19.0

These three variables are concerned with the cooperating teacher's time change because of the student teacher's presence in the areas of teaching (question 57), lesson planning (question 58), and paper grading (question 59). There appears to be little difference between the 1969 group and the 1973 group on any of the questions. No significant differences in responses between the 1969 and 1973 groups were found on any of the three variables in this factor.

Therefore, Hypothesis I-F is accepted. It is concluded that the time change in the above areas was not different between the 1969 and the 1973 cooperating teachers.

Hypothesis I-G

There is no significant difference between the impact of the 1969 Central Michigan University Student Teachers and the 1973 Central Michigan University Student Teachers, upon the cooperating school districts as viewed by their respective cooperating teachers, using the factor - Student Teacher Substitution.

TABLE 15

Cooperating Teacher percentage responses to the variables within the Factor I-G - Student Teaching Substitution.

G1 - Question #45 Staff relief from teaching

	Many times	Once or a few	Not at all	Don't know
CMU 1969	2.2	18.0	75.9	2.4
CMU 1973	5.3	27.8	63.1	3.4
Total 1969	3.7	25.2	67.0	2.6

G2 - Question #71 Staff relief from teaching

	None	One or less	2 - 4	5 - 7	8 -10	More 10
CMU 1969	86.3	8.2	3.5	1.0	--	.2
CMU 1973	76.3	14.0	7.0	1.1	.8	.8
Total 1969	77.2	12.0	6.9	1.1	.3	.6

The two variables, questions 45 and 71, both deal with the same concern; namely, the extent to which the student teacher relieved other staff members from teaching. Question 71 is more definitive than question 45. The differences in responses between the two groups to both question 45 (X^2=25.89, df 3) and question 71 (X^2=23.84, df 5) were significant at the .001 level. As in many of the previous factors, all the CMU 1969 responses were on one side of the Total 1969 group while all the CMU 1973 responses were on the opposite side.

Hypothesis I-G is rejected since significant differences were present in both variables. It is concluded that the CMU 1969 student teachers were used for staff substitution in a different manner than the CMU 1973 student teachers.

Hypothesis I-H

There is no significant difference between the impact of the 1969 Central Michigan University Student Teachers and the 1973 Central Michigan University Student Teachers, upon the cooperating school districts as viewed by their respective cooperating teachers, using the factor - Cooperating Teacher Assistance.

TABLE 16

Cooperating Teacher percentage responses to the variables within the Factor I-H - Cooperating Teacher Assistance

H1 - Question #17 Cooperating teacher conferring time with student teacher vs. pupil attention

	Frequently	Sometimes	Seldom	Never
CMU 1969	3.7	18.0	43.9	33.5
CMU 1973	2.2	16.8	48.3	32.6
Total 1969	4.2	21.6	43.9	29.0

TABLE 16 (cont.)

H2 - Question #18 Cooperating teachers planning time with student teacher vs. pupil attention

	Frequently	Sometimes	Seldom	Never
CMU 1969	2.9	17.3	41.4	36.9
CMU 1973	1.2	14.5	47.7	36.3
Total 1969	3.9	19.6	41.7	32.9

Questions 17 and 18, the two variables in this factor, are concerned with the amount of time the cooperating teacher spends conferring and planning with the student teacher, thus lessening the amount of time for individual work with pupils. While some variations were present between the 1969 and the 1973 groups, the difference in responses to question 17 (conferring) was not significant. However, the difference in responses to question 18 (planning) was significant at the .05 level (X^2=8.30, df 3).

Hypothesis I-H is rejected since a significant difference was present in one of the two variables. It is concluded that the 1973 cooperating teachers viewed their planning time with student teachers differently than the 1969 cooperating teachers.

Hypothesis I-I

There is no significant difference between the impact of the 1969 Central Michigan University Student Teachers and the 1973 Central Michigan University Student Teachers, upon the cooperating school districts as viewed by their respective cooperating teachers, using the factor - Non-Instructional Supervision.

TABLE 17

Cooperating Teacher percentage responses to the variables within the Factor I-I - Non-Instructional Supervision.

I1 - Question #24 Supervision of study periods

	Much better	Somewhat better	No change	Somewhat poorer	Much poorer	Does not apply
CMU 1969	14.3	22.7	34.3	5.1	.4	21.2
CMU 1973	11.5	18.5	34.3	4.8	.4	29.5
Total 1969	11.0	19.6	34.9	4.6	.8	25.5

I2 - Question #25 Supervision of playgrounds, hallways

	Much better	Somewhat better	No change	Somewhat poorer	Much poorer	Does not apply
CMU 1969	8.2	19.8	35.9	2.7	.6	29.0
CMU 1973	7.4	18.9	38.7	2.5	.7	31.2
Total 1969	7.9	15.9	39.4	3.2	.8	30.3

This factor has two variables concerned with a qualitative judgment regarding the supervision of study periods (question 24) and the supervision of playgrounds, hallways, etc. (question 25).

The difference in responses between the 1969 and 1973 CMU groups to question 24 was significant at the .05 level (X^2=12.12, df 5). Although some variation was present in question 25, the difference in responses between the two groups was not significant. In both variables in this factor at the Does Not Apply column, the 1969 group falls below the Total 1969 group, while the 1973 group exceeds the Total group. At the extreme of Much Better for question 25, the CMU 1973 group falls below the Total 1969 group while the CMU 1969 group exceeds the Total 1969 group. This same situation is true in the Somewhat Better column for question 24.

Hypothesis I-I is rejected, since the difference in responses for one of the two variables was significant. It is concluded that the CMU 1973 student teachers were used differently in the area of supervision of study periods than the CMU 1969 student teachers.

Hypothesis I-J

There is no significant difference between the impact of the 1969 Central Michigan University Student Teachers and the 1973 Central Michigan University Student Teachers, upon the cooperating school districts as viewed by their respective cooperating teachers, using the factor - Cooperating Teacher Professional Development.

TABLE 18

Cooperating Teacher percentage responses to the variables within the Factor I-J - Cooperating Teacher Professional Development.

J1 - Question #39 Research

	A great deal	To some extent	Not at all
CMU 1969	9.8	60.4	28.6
CMU 1973	16.3	56.8	26.9
Total 1969	11.9	57.6	29.0

J2 - Question #40 Professional reading or writing

	A great deal	To some extent	Not at all
CMU 1969	10.8	63.9	24.1
CMU 1973	17.1	57.5	25.4
Total 1969	12.6	62.8	23.1

Two variables make up this factor which is concerned with the professional activities of the cooperating teacher while the student teacher was teaching. Specifically, question 39 was related to research, while question 40 was related to professional reading or writing.

The differences in responses between the 1969 and 1973 CMU groups for both question 39 (X^2=9.75, df 2) and question 40 (X^2=9.91, df 2) were significant at the .01 level. In each variable in the A Great Deal column, the CMU 1969 group falls below the Total 1969 group while the CMU 1973 group exceeds the Total 1969 group. In the To Some Extent column in both variables, the opposite is true. The

CMU 1973 group falls below the Total 1969 group and the CMU 1969 group exceeds the Total 1969 group.

Hypothesis I-J is rejected because the differences in responses between the two CMU groups were significant for both variables. It is concluded that the 1973 CMU cooperating teachers engaged in the above activities differently from the 1969 CMU cooperating teachers.

Hypothesis I-K

There is no significant difference between the impact of the 1969 Central Michigan University Student Teachers and the 1973 Central Michigan University Student Teachers, upon the cooperating school districts as viewed by their respective cooperating teachers, using the factor - Acceptance and Influence of Student Teacher.

TABLE 19

Cooperating Teacher percentage responses to the variables within the Factor I-K - Acceptance and Influence of Student Teacher.

K1 - Question #73 Cooperating teacher's teaching performance because of student teachers

	Much more effective	More effective	No effect	Less effective	Much less effective
CMU 1969	9.2	66.7	22.0	.6	.2
CMU 1973	12.2	65.0	22.3	.4	--
Total 1969	10.9	67.3	19.1	1.0	--

K2 - Question #74 Attitudes of staff about working with student teachers

	Aggressively seek	Seek	Accept	Resist having	Refuse
CMU 1969	15.1	37.6	45.9	.2	--
CMU 1973	18.7	33.1	46.8	.4	.1
Total 1969	14.1	36.0	47.7	.4	--

TABLE 19 (cont.)

K3 - Question #75 Acceptance of another student teacher under similar circumstances

	Accept with enthusiasm	Accept	Neutral	Probably decline	Refuse
CMU 1969	44.1	43.5	6.3	4.1	.8
CMU 1973	49.5	37.5	7.8	4.0	1.0
Total 1969	44.9	41.1	6.3	4.5	1.8

The three variables in this factor are concerned with three aspects of the student teaching program. Question 73 is concerned with the effect student teachers have had on the cooperating teacher's teaching performance. The attitude of administrators and teachers about working with student teachers is the subject of qustion 74. Lastly, question 75 is concerned with the judgment of the cooperating teacher in accepting another student teacher from the same institution with similar credentials under the same general circumstances.

In all three variables a three to five per cent difference is present between the CMU 1969 and the CMU 1973 groups in the three extremes labeled Much More Effective, Aggressively Seek, and Accept With Enthusiasm. Further, at these extremes, in two of the three variables (questions 73 and 75), the CMU 1969 group falls below the Total 1969 group while the CMU 1973 group exceeds the Total 1969 group. While these variations do exist between the two groups, no significant differences in responses were found on any of the three variables in this factor.

Therefore, Hypothesis I-K is accepted. It is concluded that the CMU 1969 and the CMU 1973 cooperating teachers viewed their student teachers' acceptance and influence similarly.

Hypothesis I-L

There is no significant difference between the impact of the 1969 Central Michigan University Student Teachers and the 1973 Central Michigan University Student Teachers, upon the cooperating school districts as viewed by their respective cooperating teachers, using the factor - Student Teacher Preparation.

TABLE 20

Cooperating Teacher percentage responses to the variables within the Factor I-L - Student Teacher Preparation.

L1 - Question #7 Student teacher ability to enter student teaching

	Extremely well prepared	Well prepared	Adequately prepared	Minimally prepared	Inadequately prepared
CMU 1969	8.0	33.1	42.9	12.2	3.1
CMU 1973	12.6	43.1	32.7	9.4	1.8
Total 1969	14.1	36.1	33.0	13.0	2.6

L2 - Question #19 Re-teaching necessary because of student teacher

	Frequently	Sometimes	Seldom	Never
CMU 1969	1.6	25.9	41.0	30.2
CMU 1973	1.1	19.2	46.5	31.9
Total 1969	2.8	25.2	42.6	27.2

L3 - Question #27 Discipline

	Much better	Somewhat better	No change	Somewhat poorer	Much poorer
CMU 1969	.6	6.5	49.4	38.6	3.7
CMU 1973	2.1	12.7	53.2	31.1	2.7
Total 1969	1.9	8.0	45.3	39.1	4.2

L4 - Question #28 Motivation of pupils

	Much better	Somewhat better	No change	Somewhat poorer	Much poorer
CMU 1969	3.1	29.0	43.1	21.2	1.6
CMU 1973	5.3	36.8	42.4	13.4	1.4
Total 1969	5.3	29.1	41.9	19.9	1.8

TABLE 20 (cont.)

L5 - Question #32 New materials provided by student teachers

	A great many	Some	None
CMU 1969	8.6	63.7	26.7
CMU 1973	14.4	67.3	18.1
Total 1969	12.4	63.4	22.9

L6 - Question #33 Aids or ideas provided by student teacher

	A great many	Some	None
CMU 1969	6.7	68.8	23.5
CMU 1973	12.9	69.1	17.8
Total 1969	9.8	66.9	21.9

L7 - Question #34 Cooperating teacher use of materials and ideas of student teacher

	Used them	Did not use them	Discourage from contributing	Student Teacher did not have much to offer
CMU 1969	70.0	6.7	.8	19.6
CMU 1973	76.3	7.4	.8	13.5
Total 1969	71.2	7.0	.5	17.5

L8 - Question #79 Acceptance of student teacher as teacher in building

	Yes	No, but recommend different building	No
CMU 1969	75.9	16.7	6.1
CMU 1973	78.1	14.4	6.4
Total 1969	75.6	15.1	6.9

In the Cooperating Teacher group, this is the largest factor with eight variables. Question 7 is concerned with how well the student teacher was prepared to enter student teaching. The obvious difference in responses between the CMU 1969 and the CMU 1973 groups was significant at the .001 level (X^2=25.99, df 4). The amount of re-teaching necessary after the student teacher taught was the concern of question 19. The difference in responses between the two CMU groups was significant at the .05 level (X^2=8.65, df 3). Ques-

tions 27 and 28 relate to instructional activity changes because of the student teacher's presence. Specifically, these relate to discipline and motivation of pupils. Once again the obvious differences in responses between the two CMU groups were significant at the .001 level for both question 27 (X^2=21.30, df 4) and question 28 (X^2=19.47, df 4). The next three variables are concerned with any new or different instructional materials, aids, or ideas suggested by the student teacher and their use by the cooperating teacher. Questions 32 and 33 are directly related to suggestions by the student teacher. As above, the obvious differences in responses between the CMU 1969 and the CMU 1973 groups were significant at the .001 level for both questions 32 (X^2=18.76, df 2) and question 33 (X^2=15.48, df 2). The cooperating teacher's use of the student teacher's suggestions is the concern of question 34. The difference in responses between the two CMU groups to question 34 was significant at the .05 level (X^2=8.47, df 3). The last variable, question 79, deals with the judgment of the cooperating teacher as to whether he would want his student teacher in his building next year. The small difference in responses between the two groups to question 79 was not significant.

As was true in other factors within the cooperating teacher group, almost all the responses at the favorable extremes of each variable for the CMU 1969 group fell on one side of the Total 1969 group while the CMU 1973 group responses fell on the opposite side.

Hypothesis I-L is rejected since significant differences were found in seven of the eight variables within this factor. It is concluded that the CMU 1973 cooperating teachers viewed the prepara-

tion of their student teachers differently than the CMU 1969 cooperating teachers' view of their student teachers' preparation.

In summary, Hypotheses I-C, I-D, I-F, and I-K are accepted: Hypotheses I-A, I-B, I-E, I-G, I-H, I-I, I-J, and I-L are rejected. As mentioned earlier in the chapter, the inclusion of the Total 1969 group data was to allow the reader to form a basis for which to compare the two CMU groups. In an overwhelming majority of variables within the factors in this section, the CMU 1969 group responses and the CMU 1973 group responses were divided by the Total 1969 group. This situation existed in most factors regardless of the acceptance or rejection of the factor. The CMU 1973 group usually tended to be on the more favorable side of the Total 1969 group. This finding will be discussed further in the next chapter.

The next section of hypothesis statements deals with responses of cooperating school administrators to various questions (variables). The same general format established in the first section dealing with the responses of cooperating teachers will be followed in this section. As mentioned earlier, all Chi-Square values, degrees of freedom, and levels of significance for each variable are contained in Appendix C.

Hypothesis II-A

There is no significant difference between the impact of the 1969 Central Michigan University Student Teachers and the 1973 Central Michigan University Student Teachers upon the cooperating school districts as viewed by their respective school administrators,

using the following factor - Non-Instructional Contributions by the Student Teacher.

TABLE 21

Cooperating Administrator percentage responses to the variables within the Factor II-A - Non-Instructional Contributions by the Student Teacher.

A1 - Question #18 Chaperoning social activities of pupils

	Often	Sometimes	No	Does not apply	Don't know
CMU 1969	8.3	38.0	42.6	10.2	--
CMU 1973	13.8	48.3	22.2	14.3	1.0
Total 1969	4.4	40.8	36.6	16.2	.8

A2 - Question #19 Supervision of study halls

	Often	Sometimes	No	Does not apply	Don't know
CMU 1969	8.3	20.4	38.9	32.4	--
CMU 1973	3.0	15.3	40.9	39.4	1.0
Total 1969	4.1	14.7	39.1	40.1	.8

A3 - Question #20 Help in extracurricular activities

	Often	Sometimes	No	Does not apply	Don't know
CMU 1969	5.6	43.5	26.9	23.1	--
CMU 1973	15.8	47.8	16.3	18.2	1.5
Total 1969	3.3	32.4	32.0	30.4	.9

Questions 18, 19, and 20 are the three variables related to this factor which is concerned with specific contributions made by the student teacher. Question 18 deals with chaperoning social activities for pupils. The difference in responses between the CMU 1969 group and the CMU 1973 group was significant at the .005 level (X^2=15.09, df 4). Supervision of study halls was the concern of question 19. While an obvious difference is present in this question, the difference in responses between the two CMU groups was not significant. Question 20 looked at the student teacher contributions in the area of coaching or assisting in interscholastic or extracurricular activities. Here the obvious difference in responses

between the two CMU groups was significant at the .02 level (X^2= 12.62, df 4).

Hypothesis II-A is rejected since significant differences were found in two of the three variables within this factor. It is concluded that the non-instructional contributions by the CMU 1973 student teachers were different from that of the CMU 1969 student teachers as viewed by their respective school administrators.

Hypothesis II-B

There is no significant difference between the impact of the 1969 Central Michigan University Student Teachers and the 1973 Central Michigan University Student Teachers upon the cooperating school districts as viewed by their respective school administrators, using the following factor - Special University Service Availability to Staff.

TABLE 22

Cooperating Administrator percentage responses to the variables within the Factor II-B - Special University Service Availability to Staff.

B1 - Question #41 University library privileges

	1	2	3	4	5	6	7	8	9
CMU 1969	3.7	10.2	40.7	-	.9	6.5	9.3	-	26.9
CMU 1973	2.0	16.3	42.9	-	-	4.9	9.4	1.0	23.6
Total 1969	3.3	20.9	29.7	-	.2	7.3	11.4	2.6	21.8

B2 - Question #42 Faculty identification cards

	1	2	3	4	5	6	7	8	9
CMU 1969	2.8	2.8	28.7	-	-	12.0	5.6	2.8	44.4
CMU 1973	2.0	4.4	34.5	-	.5	16.3	9.9	1.0	31.5
Total 1969	1.2	7.6	23.9	.2	.1	13.6	12.9	5.8	32.0

TABLE 22 (cont.)

B3 - Question #43 Recognition certificate from the university

	1	2	3	4	5	6	7	8	9
CMU 1969	3.7	29.6	20.4	-	-	5.6	12.0	2.8	24.1
CMU 1973	2.5	31.5	29.1	-	-	3.9	10.8	2.0	19.7
Total 1969	2.7	19.2	20.0	.2	.2	10.6	16.0	4.4	23.9

B4 - Question #44 Consultant services from the university

	1	2	3	4	5	6	7	8	9
CMU 1969	4.6	34.3	17.6	.9	-	4.6	6.5	2.8	25.9
CMU 1973	9.4	37.9	21.2	-	-	3.9	5.4	1.0	21.2
Total 1969									

B5 - Question #45 Instructional materials from the university

	1	2	3	4	5	6	7	8	9
CMU 1969	2.8	22.2	16.7	-	-	2.8	17.6	1.9	35.2
CMU 1973	3.9	29.1	24.6	-	-	3.0	12.8	2.0	24.6
Total 1969	2.9	29.1	16.1	.1	-	2.2	16.9	6.2	23.9

B6 - Question #46 Tickets to university events

	1	2	3	4	5	6	7	8	9
CMU 1969	-	1.9	19.4	-	-	4.6	22.2	10.2	40.7
CMU 1973	1.5	5.9	24.1	-	-	8.9	16.7	34.0	.5
Total 1969	1.5	5.7	13.7	-	-	7.8	25.0	13.4	30.1

B7 - Question #47 Hospitalization services

	1	2	3	4	5	6	7	8	9
CMU 1969	-	.9	15.7	-	-	20.4	11.1	5.6	44.4
CMU 1973	.5	1.0	25.1	-	-	19.2	7.9	2.5	43.8
Total 1969	.7	1.4	14.1	-	.1	23.6	12.5	6.2	37.9

CODE:
1--Has had a very positive effect
2--Has had a positive effect
3--Has had no effect
4--Has had a negative effect
5--Had had a very negative effect
6--This service has not been available and would have had no effect if available
7--This service has not been available but would have had a positive effect if available
8--This service has not been available but would have had a very positive effect if available
9--I do not know whether or not this service is available

The availability of special university services and how they have influenced the school staff in working with student teachers is

the main concern of this large factor. The seven variables are questions 41 through 47 and deal with the following topics: university library privileges (41), faculty identification cards (42), recognition certificate from the university (43), consultant services from the university (44), instructional materials from the university (45), tickets to university events - athletics, cultural events, etc. (46), and hospitalization services (47). None of the differences in responses between the CMU 1969 group and the CMU 1973 group were significant for questions 41, 42, 43, 44, 45, and 47. However, the difference in responses between the two CMU groups to question 46 was significant at the .001 level (X^2=97.99, df 6).

Hypothesis II-B is accepted because the difference in responses was significant for only one of the seven variables. As mentioned previously in the first section, this acceptance is based upon the criteria statement that one-third or more of the variables within a factor had to show significance for the hypothesis to be rejected. It is concluded that the CMU 1973 cooperating school administrator viewed tickets for staff to university events differently from the CMU 1969 cooperating school administrators.

Hypothesis II-C

There is no significant difference between the impact of the 1969 Central Michigan University Student Teachers and the 1973 Central Michigan University Student Teachers upon the cooperating school districts as viewed by their respective school administrators, using the following factor - Administrator Work Load Change in Counseling and Communication.

TABLE 23

Cooperating Administrator percentage responses to the variables within the Factor II-C - Administrator Work Load Change in Counseling and Communication.

C1 - Question #62 Student teaching reports

	Increased work load	No change	Decreased work load	Does not apply
CMU 1969	37.0	56.5	.9	4.6
CMU 1973	40.4	51.7	1.0	6.9
Total 1969	47.0	46.2	1.0	4.0

C2 - Question #64 Counseling student teachers

	Increased work load	No change	Decreased work load	Does not apply
CMU 1969	52.8	39.8	2.8	2.8
CMU 1973	45.8	47.3	.5	6.4
Total 1969	55.0	37.2	1.6	4.1

C3 - Question #65 Selection of cooperating teacher

	Increased work load	No change	Decreased work load	Does not apply
CMU 1969	46.3	43.5	.9	7.4
CMU 1973	53.7	38.4	1.0	6.9
Total 1969	49.8	39.5	1.5	7.1

C4 - Question #66 Orientation of student teachers

	Increased work load	No change	Decreased work load	Does not apply
CMU 1969	61.1	33.3	1.9	2.8
CMU 1973	58.1	36.9	.5	4.4
Total 1969	62.9	31.5	1.4	2.4

C5 - Question #67 Finding instrutional materials

	Increased work load	No change	Decreased work load	Does not apply
CMU 1969	11.1	75.9	-	12.0
CMU 1973	12.3	72.9	1.0	13.8

C6 - Question #68 Counseling cooperating teachers

	Increased work load	No change	Decreased work load	Does not apply
CMU 1969	54.6	39.8	.9	3.7
CMU 1973	50.2	42.9	1.5	5.4
Total 1969	56.8	37.5	1.3	2.7

TABLE 23 (cont.)

C7 - Question #69 Communicating with parents about student teachers

	Increased work load	No change	Decreased work load	Does not apply
CMU 1969	17.6	75.9	.9	3.7
CMU 1973	12.8	77.8	1.5	7.9
Total 1969	17.0	74.2	1.2	5.7

The causes of any change in the administrator's work load brought about by student teachers is the concern of this factor. The seven variables related to this factor and their subjects are as follows: question 62 - additional reports regarding student teaching or student teachers; question 64 - counseling student teachers; question 65 - selection of cooperating teachers; question 66 - orientation of student teachers; question 67 - finding instructional materials; question 68 - counseling cooperating teachers; and question 69 - communication with parents about activities related to student teachers. None of the differences in responses between the two CMU groups were significant for any of the questions in this factor.

According, Hypothesis II-C is accepted. It is concluded that the cooperating school administrators in 1969 and 1973 had similar work load changes in counseling and communication because of the presence of student teachers.

Hypothesis II-D

There is no significant difference between the impact of the 1969 Central Michigan University Student Teachers and the 1973 Central Michigan University Student Teachers upon the cooperating school districts as viewed by their respective school administrators,

using the following factor - Pupil Instructional Activity Change.

TABLE 24

Cooperating Administrator percentage responses to the variables within the Factor II-D - Pupil Instructional Activity Change.

D1 - Question #28 Provision for make-up work

	Much greater	Somewhat greater	No change	Somewhat less	Much less
CMU 1969	10.9	56.5	32.4	-	-
CMU 1973	17.7	55.2	26.6	-	-
Total 1969	14.1	55.6	28.6	.3	.1

D2 - Question #29 Follow-up of exams

	Much better	Somewhat better	No change	Somewhat poorer	Much poorer
CMU 1969	8.3	56.5	32.4	-	.9
CMU 1973	14.3	49.8	35.0	.5	-
Total 1969	11.6	50.1	36.3	.3	.1

D3 - Question #30 Individual counseling of pupils

	Much more	Somewhat more	No change	Somewhat less	Much less
CMU 1969	14.8	68.5	14.8	-	-
CMU 1973	18.2	66.5	14.8	.5	-
Total 1969	19.7	64.0	14.6	.5	.1

D4 - Question #38 Individual instruction or tutoring of pupils

	Much more	Somewhat more	No change	Somewhat less	Much less
CMU 1969	12.0	80.6	5.6	.9	-
CMU 1973	20.2	70.0	8.4	.5	-
Total 1969	17.8	69.1	11.2	.5	-

The four variables within this factor are concerned with certain instructional activities for pupils which are changed because of the presence of student teachers in the building. Question 28 concerns provision for make-up work, while question 29 relates to follow-up of exams. Question 30 deals with individual counseling of pupils, while question 38 concerns the individual instruction or tutoring of pupils. Although the percentage differences between the

CMU 1969 group and the CMU 1973 group appear to be large on all four variables, the differences in responses between the two CMU groups were not significant on any variable. On questions 28, 29, and 38 in the extreme of Much Greater or Much More, the CMU 1969 group fell below the Total 1969 group while the CMU 1973 group exceeded the Total 1969 group.

Hypothesis II-D is accepted since none of the differences in responses within the factor were significant. It is concluded that the two CMU groups were not significantly different in their effect upon pupil instructional activity change.

Hypothesis II-E

There is no significant difference between the impact of the 1969 Central Michigan University Student Teachers and the 1973 Central Michigan University Student Teachers upon the cooperating school districts as viewed by their respective school administrators, using the following factor - Instructional Input of Student Teachers.

TABLE 25

Cooperating Administrator percentage responses to the variables within the Factor II-E - Instructional Input of Student Teachers.

E1 - Question #22 Instructional materials brought by student teachers

	A great many	Quite a few	Some	A very few	None
CMU 1969	.9	14.8	55.6	24.1	3.7
CMU 1973	3.9	19.7	55.7	17.2	2.5
Total 1969	3.7	18.1	53.7	19.5	3.0

TABLE 25 (cont.)

E2 - Question #23 Aids and ideas from student teachers

	Often	Sometimes	Seldom	Never
CMU 1969	.9	63.0	33.3	2.8
CMU 1973	14.8	67.0	16.3	1.5
Total 1969	8.2	64.2	23.5	2.3

E3 - Question #24 Utilization of student teacher input by cooperating teacher

	1	2	3	4	5
CMU 1969	4.6	82.4	3.7	-	8.3
CMU 1973	6.9	89.7	.5	-	2.0
Total 1969	9.8	79.8	1.8	.3	6.2

CODE:

1--They always use them
2--They sometimes use them
3--They do not use them
4--They discourage student teachers from contributing too freely
5--Student teachers really do not have much to offer

New or different instructional materials brought, developed, provided, or suggested to the school teachers by the student teachers was the subject of the first variable, question 22. Although the variations appear large, the difference in responses between the CMU 1969 and the CMU 1973 groups was not significant. Question 23 dealt with any other kinds of aids or ideas suggested or provided by the student teachers. Here the difference in responses between the two CMU groups was significant at the .001 level (X^2=22.95, df 3). The utilization by the cooperating teachers of the contributions of the student teachers mentioned in questions 22 and 23 was the subject of question 24. The difference in responses between the two CMU groups was significant at the .01 level (X^2=12.67, df 3). In question 22 with the exception of the middle response of Some, the CMU 1969 group is always on the opposite side of the Total 1969 group from the CMU 1973 group. The same is true for question 23 on all

four responses.

Hypothesis II-E is rejected since significant differences were found in two of the three variables within the factor. It is concluded that the CMU 1973 cooperating school administrators viewed aids and ideas from student teachers and their utilization by the cooperating teachers differently from the CMU 1969 cooperating school administrators.

Hypothesis II-F

There is no significant difference between the impact of the 1969 Central Michigan University Student Teachers and the 1973 Central Michigan University Student Teachers upon the cooperating school districts as viewed by their respective school administrators, using the following factors - Student Teacher Academic Program.

TABLE 26

Cooperating Administrator percentage responses to the variables within the Factor II-F - Student Teacher Academic Program.

F1 - Question #13 Student teacher preparation

	Extremely well prepared	Very Well prepared	Adequately prepared	Minimally prepared	Inadequately prepared
CMU 1969	2.8	38.0	47.2	9.3	.9
CMU 1973	5.9	48.3	41.4	3.4	.5
(No total)					

F2 - Question #14 Length of student teaching day

	Full days	Half days	Less than half days
CMU 1969	81.5	16.7	1.9
CMU 1973	92.1	6.9	.5
(No total)			

How well the building administrator felt the student teachers in his building were prepared to enter student teaching was the sub-

ject of question 13. Although there is a numerical difference between the two groups, the difference in responses between the CMU 1969 and the CMU 1973 groups was not significant. The difference in responses between the two CMU groups to question 14, which was concerned with the proportion of the day student teachers were assigned, was significant at the .02 level (X^2=9.17, df 2). As mentioned earlier in the chapter, no total percentages are included since the Total 1969 group did not have a corresponding factor.

Hypothesis II-F is rejected, since the differences in responses for one of the two variables within the factor was significant. It is concluded that the CMU 1973 student teachers had a different length of student teaching day than the CMU 1969 student teachers, with more of the CMU 1973 group having a full day.

Hypothesis II-G

There is no significant difference between the impact of the 1969 Central Michigan University Student Teachers and the 1973 Central Michigan University Student Teachers upon the cooperating school districts as viewed by their respective school administrators, using the following factor - Administrator Utilization of Released Time of Cooperating Teacher, Student Teacher, and Staff.

TABLE 27

Cooperating Administrator percentage responses to the variables within the Factor II-G - Administrator Utilization of Released Time of Cooperating Teacher, Student Teacher and Staff.

TABLE 27 (cont.)

G1 - Question #71 Student teacher assistance with clerical tasks

	Increased work load	Made no change	Decreased work load	Does not apply
CMU 1969	6.5	77.8	4.6	9.3
CMU 1973	9.9	71.4	7.4	11.3

G2 - Question #72 Release time of cooperating teacher

	Increased work load	Made no change	Decreased work load	Does not apply
CMU 1969	10.2	71.3	9.3	8.3
CMU 1973	9.9	60.1	22.7	7.4

G3 - Question #73 Release time of other staff members

	Increased work load	Made no change	Decreased work load	Does not apply
CMU 1969	4.6	74.1	7.4	12.0
CMU 1973	5.4	63.5	21.2	8.9
Total 1969	3.9	67.2	12.3	14.5

This factor is concerned with change in the administrator's work load brought about by student teachers in the following areas: student teacher assistance with routine clerical tasks in the school - question 71; time of supervising teachers being made available by the student teachers' teaching of classes - question 72; and time of other teachers being made available by student teachers' handling some of their assigned responsibilities - question 73.

The difference in responses between the CMU 1969 and the CMU 1973 groups to question 71 was not significant. The obvious percentage differences in responses between the two CMU groups were reflected in a .05 level of significance for question 72 (X^2=8.31, df 3) and a .02 level of significance for question 73 (X^2=9.96, df 3). Once again a Total 1969 percentage is missing in two of the three variables. The Total 1969 group does divide the two CMU groups on

question 73 on the two responses, Made No Change and Decreased Work Load.

Since significant differences were found in two of the three variables, Hypothesis II-G is rejected. It is concluded that the CMU 1973 student teachers were utilized in the above areas differently from the CMU 1969 student teachers.

Hypothesis II-H

There is no significant difference between the impact of the 1969 Central Michigan University Student Teachers and the 1973 Central Michigan University Student Teachers upon the cooperating school districts as viewed by their respective school administrators, using the following factor - Teaching Utilization of Student Teachers.

TABLE 28

Cooperating Administrator percentage responses to the variables within the Factor II-H - Teaching Utilization of Student Teachers.

H1 - Question #25 Hours per week student teachers teach

	1	2	3	4	5	6
CMU 1969	-	23.1	33.3	20.4	20.4	1.9
CMU 1973	-	10.8	17.7	37.4	21.7	11.3
Total 1969	.9	18.8	35.7	26.6	12.4	3.4

H2 - Question #26 Released instructional hours of cooperating teachers

	1	2	3	4	5	6
CMU 1969	5.6	41.7	23.1	21.3	4.6	1.9
CMU 1973	3.0	27.6	34.5	20.7	7.4	6.4
Total 1969	10.8	50.0	23.5	9.2	3.0	1.0

CODE:
1--Less than an hour a week
2--One to five hours per week
3--Six to ten hours per week
4--Eleven to fifteen hours per week
5--Sixteen to twenty hours per week
6--More than twenty hours per week

The two variables connected with this factor are concerned with the hours per week the student teachers teach the classes of the cooperating teachers (question 25) and the hours per week the cooperating teachers are able to be away from the classroom while the student teachers teach (question 26). The differences in responses between the CMU 1969 group and the CMU 1973 group were significant at the .001 level for question 25 (x^2=27.41, df 5) and at the .05 level for question 26 (x^2=12.46, df 5).

Hypothesis II-H is rejected since significant differences in responses were found in both variables within this factor. It is concluded that the CMU 1973 cooperating teachers were perceived as utilizing their student teachers in teaching differently from the CMU 1969 cooperating teachers.

Hypothesis II-I

There is no significant difference between the impact of the 1969 Central Michigan University Student Teachers and the 1973 Central Michigan University Student Teachers upon the cooperating school districts as viewed by their respective school administrators, using the following factor - Normal University Service Availability to Staff.

TABLE 29

Cooperating Administrator percentage responses to the variables within the Factor II-I- Normal University Service Availability to Staff.

I1 - Question #48 Cash stipend to staff

	1	2	3	4	5	6	7	8	9
CMU 1969	9.3	46.3	22.2	2.8	.9	1.9	8.3	1.9	4.6
CMU 1973	11.8	41.1	24.1	1.0	-	3.9	4.4	3.9	8.9

TABLE 29 (cont.)

I2 - Question #49 Seminars, workshops or meetings in school area

	1	2	3	4	5	6	7	8	9
CMU 1969	2.8	44.4	13.9	-	-	3.7	17.6	1.9	13.9
CMU 1973	9.9	42.4	19.7	-	-	3.4	10.3	4.4	9.9
Total 1969	4.7	36.2	15.4	.4	-	3.9	16.9	6.4	13.5

I3 - Question #50 Seminars, workshops or meetings on the University campus

	1	2	3	4	5	6	7	8	9
CMU 1969	.9	32.4	20.4	-	-	7.4	14.8	.9	19.4
CMU 1973	4.4	38.4	32.0	1.5	-	4.9	4.9	3.4	10.3
Total 1969	3.4	34.0	20.6	1.6	.3	8.5	10.4	2.8	14.8

CODE:
1--Has had a very positive effect
2--Has had a positive effect
3--Has had no effect
4--Has had a negative effect
5--Has had a very negative effect
6--This service has not been available and would have had no effect if available
7--This service has not been available but would have had a positive effect if available
8--This service has not been available but would have had a very positive effect if available
9--I do not know whether or not this service is available

Administrators were asked to judge how cash stipends to the cooperating teacher (question 48); seminars, workshops or meetings in the school (question 49); and seminars, workshops, or meetings on the University campus (question 50); influence the attitudes of their staff concerning working with student teachers. Although there are obvious percentage differences in both questions 48 and 49, the differences in responses between the CMU 1969 and the CMU 1973 groups were not significant. However, the difference in responses between the two CMU groups to question 50 was significant at the .005 level (x^2=23.71, df 7). In questions 49 and 50, at both extremes of the responses, the Total 1969 group divides the two CMU groups. Further, the responses between the two CMU groups labeled #3 and #7

for question 49 and #2, #3, and #8 for question 50 were divided by the Total 1969 group.

Hypothesis II-I is rejected since the difference in responses for one of the three variables within the factor was significant. It is concluded that the availability of seminars, workshops or meetings on the CMU campus was viewed differently by the two CMU groups of cooperating school administrators.

Hypothesis II-J

There is no significant difference between the impact of the 1969 Central Michigan University Student Teachers and the 1973 Central Michigan University Student Teachers upon the cooperating school districts as viewed by their respective school administrators, using the following factor - Additional Participation of Cooperating Teacher.

TABLE 30

Cooperating Administrator percentage responses to the variables within the Factor II-J - Additional Participation of Cooperating Teacher.

J1 - Question #52 Cooperating teacher committee work with pupils and/or staff

	1	2	3	4	5
CMU 1969	6.5	47.2	44.4	-	-
CMU 1973	10.8	44.3	44.3	-	-
Total 1969	5.2	46.0	46.3	.9	-

J2 - Question #53 Research

	1	2	3	4	5
CMU 1969	1.9	38.0	59.3	-	-
CMU 1973	4.9	33.5	61.1	-	-
Total 1969	1.5	29.6	66.8	.5	-

TABLE 30 (cont.)

J3 - Question #54 Professional reading and/or writing

	1	2	3	4	5
CMU 1969	4.6	44.4	50.0	-	-
CMU 1973	5.9	48.8	45.3	-	-
Total 1969	2.6	45.7	48.8	1.0	.1

J4 - Question #55 Work with staff members

	1	2	3	4	5
CMU 1969	6.5	51.9	40.7	-	-
CMU 1973	12.8	63.5	23.6	-	-
Total 1969	7.3	49.3	41.5	.1	.3

J5 - Question #56 Assistance to principal or other teachers

	1	2	3	4	5
CMU 1969	2.8	53.7	41.7	-	-
CMU 1973	9.9	62.1	28.1	-	-
Total 1969	5.5	48.0	44.0	.7	.1

CODE:
1--Much more than usual 2--More than usual
3--No change 4--Less than usual
5--Much less than usual

This factor is concerned with the presence of the student teacher changing the cooperating teacher's participation in the following activities: committee work in the school with pupils and/or staff (question 52); research (question 53); professional reading and/or writing (question 54); work or meet with staff members of school or department (question 55); and assistance to the principal or to other teachers (question 56). The differences in responses between the CMU 1969 and the CMU 1973 groups to questions 52, 53, and 54 were not significant. However, the differences in responses between the two CMU groups to question 55 (x^2=10.90, df 2) and question 56 (x^2=9.30, df 2) were significant at the .01 level. In addition, in both questions at the extreme response of Much More Than Usual, the Total 1969 group divided the two CMU groups.

Hypothesis II-J is rejected since a significant difference was present in two of the four variables within the factor. It is concluded that the CMU 1973 student teachers allowed their cooperating teachers to work with staff members and assist the principal or other teachers differently from the CMU 1969 student teachers.

Hypothesis II-K

There is no significant difference between the impact of the 1969 Central Michigan University Student Teachers and the 1973 Central Michigan University Student Teachers upon the cooperating school districts as viewed by their respective school administrators, using the following factor - Student Teacher Effect on Pupils, Staff, and Parents.

TABLE 31

Cooperating Administrator percentage responses to the variables within the Factor II-K - Student Teacher Effect on Pupils, Staff, and Parents.

K1 - Question #34 Discipline

	Much better	Somewhat better	No change	Somewhat poorer	Much poorer
CMU 1969	--	14.8	63.0	21.3	--
CMU 1973	2.0	18.7	64.5	14.8	--

K2 - Question #35 Motivation of pupils

	Much better	Somewhat better	No change	Somewhat poorer	Much poorer
CMU 1969	1.9	53.7	35.2	8.3	--
CMU 1973	4.9	54.2	38.4	2.0	--

K3 - Question #36 Overall quality of instruction

	Much better	Somewhat better	No change	Somewhat poorer	Much poorer
CMU 1969	2.8	50.9	35.2	10.2	--
CMU 1973	5.9	55.7	34.5	3.9	--

TABLE 31 (cont.)

K4 - Question #57 Staff morale

	Very positively	Somewhat positively	Neutral	Somewhat negatively	Very negatively
CMU 1969	20.4	41.7	36.1	--	--
CMU 1973	24.1	51.2	21.7	2.5	.5
Total 1969	18.9	47.6	30.8	1.3	--

K5 - Question #58 Parent reaction

	Very positively	Somewhat positively	Neutral	Somewhat negatively	Very negatively
CMU 1969	15.7	27.8	50.9	3.7	--
CMU 1973	18.2	34.5	36.5	10.3	.5
Total 1969	15.1	31.2	43.3	8.6	.3

K6 - Question #59 Non-instructional staff reaction

	Very positively	Somewhat positively	Neutral	Somewhat negatively	Very negatively
CMU 1969	15.7	34.3	48.1	--	--
CMU 1973	18.2	36.5	44.3	1.0	--
Total 1969	17.5	28.0	51.4	1.4	--

K7 - Question #60 Pupil reaction

	Very positively	Somewhat positively	Neutral	Somewhat negatively	Very negatively
CMU 1969	33.3	43.5	18.5	3.7	--
CMU 1973	29.1	51.2	15.3	3.9	--
Total 1969	26.0	47.0	21.0	4.5	.2

The effect of the presence of student teachers in the building is the concern of this large factor. The differences in responses between the CMU 1969 and the CMU 1973 groups to questions 34 (related to discipline) and 39 (concerned with overall quality of instruction) were not significant. The difference in responses between the two CMU groups to question 35 which is related to motivation of pupils was significant at the .05 level (x^2=8.94, df 3). The last four variables are concerned with staff morale (question 57), parental reaction (question 58), custodial, cafeteria and clerical staff reaction (question 59), and pupil reaction (question 60).

The difference in responses between the CMU 1969 and the CMU 1973 groups to question 57 was significant at the .05 level (x^2=10.16, df 4). The differences in responses to the other three variables, questions 58, 59, and 60 were not significant.

As with previous factors, the Total 1969 group separated the two CMU groups on various questions and the individual responses within the questions.

Hypothesis II-K is accepted since significant differences were present in only two of the seven variables within the factor. It is concluded that the CMU 1973 student teachers had a different effect on the motivation of pupils and staff morale than the CMU 1969 student teachers.

In summary, Hypotheses II-B, II-C, II-D, and II-K are accepted: Hypotheses II-A, II-E, II-F, II-G, II-H, II-I, and II-J are rejected. Similar to the situation in the first section of this chapter, in an overwhelming majority of variables within the factors in this section, the CMU 1969 group responses and the CMU 1973 group responses were divided by the Total 1969 group responses. This situation existed in most factors regardless of the acceptance or rejection of the factor. Once again the CMU 1973 group tended to be on the more favorable side of the Total 1969 group. This finding will be discussed further in the next chapter.

The last section of hypothesis statements deals with responses of student teachers to various questions (variables). The same general format established in the first two sections will be followed in this section. As mentioned previously, all Chi-Square values, degrees of freedom, and levels of significance for each variable are

contained in Appendix C.

Hypothesis III-A

There is no significant difference between the impact of the 1969 Central Michigan University Student Teachers and the 1973 Central Michigan University Student Teachers upon the cooperating school districts as viewed by the respective student teachers, using the following factor - Staff Utilization in Non-Instructional Areas.

TABLE 32

Student Teacher percentage responses to the variables within the Factor III-A - Staff Utilization in Non-Instructional Areas.

A1 - Question #50 Staff visitation in other classrooms

	Many times	To some extent	Not at all	Don't know
CMU 1969	1.0	8.5	54.3	35.2
CMU 1973	2.5	19.9	50.2	27.3
Total 1969	1.5	12.0	52.6	32.1

A2 - Question #51 Staff committee work

	A great deal	To some extent	Not at all	Don't know
CMU 1969	.8	8.2	49.9	39.6
CMU 1973	1.6	20.0	46.3	32.1
Total 1969	1.3	10.9	49.0	37.4

A3 - Question #52 Staff research

	A great deal	To some extent	Not at all	Don't know
CMU 1969	1.2	6.0	50.1	41.0
CMU 1973	2.5	15.8	45.4	36.2
Total 1969	1.0	8.2	48.7	40.4

A4 - Question #53 Staff professional reading or writing

	A great deal	To some extent	Not at all	Don't know
CMU 1969	.8	5.4	49.6	42.5
CMU 1973	1.7	12.1	46.3	39.9
Total 1969	.8	7.4	47.8	42.3

The four variables in this factor deal with activities staff members might engage in because of the presence of student teachers

in the building. Question 50 dealt with visitations in other classrooms or schools, question 51 dealt with committee work in the school, question 52 dealt with research, and question 53 dealt with professional reading or writing. The differences in responses between the CMU 1969 group and the CMU 1973 group to questions 50 (x^2=35.99, df 3), 51 (x^2=34.03, df 3), 52 (x^2=29.77, df 3) and 53 (x^2=17.39, df 3) were significant at the .001 level. The Total 1969 group divided the two CMU groups on all four variables in all four responses except the A Great Deal column in question 52.

Accordingly, Hypothesis III-A is rejected since significant differences were found in all four variables. It is concluded the presence of the CMU 1973 student teachers allowed school staff to be utilized in the above areas differently than the presence of the CMU 1969 student teachers.

Hypothesis III-B

There is no significant difference between the impact of the 1969 Central Michigan University Student Teachers and the 1973 Central Michigan University Student Teachers upon the cooperating school districts as viewed by the respective student teachers, using the following factor - Cooperating Teacher Conferencing with Student Teacher.

TABLE 33

Student Teacher percentage responses to the variables within the Factor III-B - Cooperating Teacher Conferencing with Student Teacher.

TABLE 33 (cont.)

B1 - Question #61 Planning

	A great many extra hours	Some extra hours	No extra hours
CMU 1969	6.0	69.4	22.7
CMU 1973	6.7	64.9	28.3
Total 1969	5.6	67.6	25.4

B2 - Question #62 Evaluating

	A great many extra hours	Some extra hours	No extra hours
CMU 1969	5.8	75.3	17.3
CMU 1973	8.4	72.0	19.5
Total 1969	6.2	73.6	18.6

B3 - Question #63 Non-student teaching conferences

	A great many extra hours	Some extra hours	No extra hours
CMU 1969	13.7	68.2	17.1
CMU 1973	19.9	66.8	13.3
Total 1969	13.9	65.0	19.6

B4 - Question #68 Telephone or other conferences

	A great many extra hours	Some extra hours	No extra hours	Don't know
CMU 1969	1.8	43.9	50.9	2.2
CMU 1973	4.0	44.4	48.0	3.5
Total 1969	2.5	44.9	48.4	2.7

The four variables connected with this factor were concerned with the cooperating teacher engaging in the following activities with the student teacher: planning (question 61); evaluating progress and activities (question 62); holding casual and/or personal conversations not really a part of student teaching (question 63); and holding telephone conversations or other conferences (question 68). The differences in responses between the CMU 1969 and the CMU 1973 groups to questions 61, 62, and 68 were not significant. However, the difference in responses between the two CMU groups to question 63 was significant at the .01 level (x^2=9.83, df 2). The

Total 1969 group divided the two CMU groups on the three variables, that lacked significant differences, on all responses except the A Great Many Extra Hours column for question 61 and the Some Extra Hours column for question 68. This division of the two CMU groups was only present on the A Great Many Extra Hours column for question 63.

Hypothesis III-B is accepted because the difference in responses was significant for only one of the four variables. It is concluded that conferencing with student teachers was similar between the 1969 and 1973 cooperating teachers.

Hypothesis III-C

There is no significant difference between the impact of the 1969 Central Michigan University Student Teachers and the 1973 Central Michigan University Student Teachers upon the cooperating school districts as viewed by the respective student teachers, using the following factor - Instructional Input of Student Teacher.

TABLE 34

Student Teacher percentage responses to the variables within the Factor III-C - Instructional Input of Student Teacher.

C1 - Question #32 New materials provided by student teacher

	Great many	Some	No	I am not sure
CMU 1969	6.4	66.4	11.9	14.1
CMU 1973	15.2	71.9	7.2	5.8
Total 1969	11.8	67.1	9.3	10.4

C2 - Question #33 Aids or ideas provided by student teacher

	Great many	Some	No	I am not sure
CMU 1969	6.4	70.6	9.3	12.5
CMU 1973	13.8	73.2	5.7	7.3
Total 1969	9.9	72.6	7.0	9.2

TABLE 34 (cont.)

C3 - Question #34 Reception of student teacher ideas and materials

	Used	Not used	Discouraged	Not much to offer
CMU 1969	80.3	1.4	4.4	10.9
CMU 1973	84.7	4.3	2.6	7.2
Total 1969	81.6	2.9	4.8	8.1

Contributions by the student teacher to the school program is the subject of this factor. Specific areas are new or different instructional materials brought, developed, provided or suggested (question 32); any other kinds of aid or ideas suggested or provided (question 33); and the reception of these contributions by the cooperating teacher (question 34). The differences in responses between the CMU 1969 and the CMU 1973 groups to questions 32 (x^2=52.01, df 3), 33 (x^2=30.31, df 3), and 34 (x^2=16.30, df 3) were all significant at the .001 level. Once again the Total 1969 group separated the CMU groups on all variables for all responses except the Discouraged column for question 34.

Hypothesis III-C is rejected since significant differences were present in all three variables. It is concluded that the instructional input of the CMU 1973 student teachers was different from that of the CMU 1969 student teachers.

Hypothesis III-D

There is no significant difference between the impact of the 1969 Central Michigan University Student Teachers and the 1973 Central Michigan University Student Teachers upon the cooperating school districts as viewed by the respective student teachers, using the following factor - Student Teacher Substitution.

TABLE 35

Student Teacher percentage responses to the variables within the Factor III-D - Student Teacher Substitution.

D1 - Question #45 Relieving staff from teaching

	Many times	Once or a few times	Not at all
CMU 1969	2.6	22.3	73.8
CMU 1973	7.3	39.5	53.0
Total 1969	4.2	29.1	65.3

D2 - Question #71 Handling staff classes while staff was away

	None	1 or less	2-4	5-7	8-10	More than 10
CMU 1969	82.7	10.7	4.0	.4	.2	.4
CMU 1973	64.6	19.3	9.9	2.6	.6	2.5
Total 1969	72.8	14.6	8.0	1.9	.6	.7

The two variables in this factor, questions 45 and 71, both deal with the same concern, namely, the extent to which the student teacher relieved other staff members from teaching. Question 71 is more definitive than question 45.

For both question 45 (x^2=60.66, df 2) and question 71 (x^2=58.71, df 5), the differences in responses between the CMU 1969 and the CMU 1973 groups were significant at the .001 level. On both variables for all responses, the Total 1969 group divided the two CMU groups.

Hypothesis III-D is rejected because significant differences were present in both variables. It is concluded that the CMU 1973 student teachers were used as substitutes for staff differently from the CMU 1969 student teachers.

Hypothesis III-E

There is no significant difference between the impact of the 1969 Central Michigan University Student Teachers and the 1973 Central Michigan University Student Teachers upon the cooperating

school districts as viewed by the respective student teachers, using the following factor - Cooperating Teacher Job-Related Time Change.

TABLE 36

Student Teacher percentage responses to the variables within the Factor III-E - Cooperating Teacher Job-Related Time Change.

E1 - Question #55 Hours per week cooperating teacher spent at school because of student teacher

	1	2	3	4	5	6	7	8	9	10
CMU 1969	.4	1.0	3.0	4.8	60.6	3.4	2.2	1.8	1.6	19.5
CMU 1973	1.4	1.2	2.8	2.3	57.5	3.7	5.1	3.3	2.7	19.8
Total 1969	.6	1.0	2.8	3.1	60.6	3.5	4.2	2.1	1.4	18.8

E2 - Question #56 Hours per week cooperating teacher worked on job related activities away from school because of student teacher

	1	2	3	4	5	6	7	8	9	10
CMU 1969	1.8	2.4	4.8	3.0	33.8	1.0	4.0	2.0	1.4	43.3
CMU 1973	3.7	3.6	6.5	3.7	40.5	1.0	3.0	2.6	3.0	32.2
Total 1969	2.4	2.4	4.3	3.3	36.0	1.4	3.5	2.4	1.6	39.7

CODE:
1--Added more than six hours per week
2--Added three to six hours per week
3--Added one to three hours per week
4--Added up to one hour per week
5--Had no effect
6--Reduced by up to one hour per week
7--Reduced by one to three hours per week
8--Reduced by three to six hours per week
9--Reduced by more than six hours per week
10-I am unable to judge

This factor with its two variables was concerned with the increase or decrease in hours per week the cooperating teacher spent at school (question 55) or on job-related activities away from school (question 56) because of the presence of the student teacher.

The difference in responses between the CMU 1969 and the CMU 1973 groups to question 55 was significant at the .05 level (x^2= 18.67, df 9) while the difference in responses between the two CMU groups to question 56 was significant at the .001 level (x^2=68.97,

df 9). In a majority of the responses within both variables, the Total 1969 group separated the two CMU groups.

Hypothesis III-E is rejected since significant differences were present in both variables within the factor. It is concluded that in the above areas, the CMU 1973 student teachers had a different effect upon the time of their cooperating teachers than did the CMU 1969 student teachers upon their cooperating teachers.

Hypothesis III-F

There is no significant difference between the impact of the 1969 Central Michigan University Student Teachers and the 1973 Central Michigan University Student Teachers upon the cooperating school districts as viewed by the respective student teachers, using the following factor - University Supervisor Assistance.

TABLE 37

Student Teacher percentage responses to the variables within the Factor III-F - University Supervisor Assistance.

F1 - Question #76 University Supervisor visitations to school

	1	2	3	4	5	6	7	8	9
CMU 1969	1.6	15.5	26.4	18.7	9.1	8.5	3.8	4.8	10.1
CMU 1973	1.1	9.9	17.4	16.0	10.5	9.8	9.6	13.1	12.0
Total 1969	2.3	23.9	37.0	12.4	5.4	4.4	2.1	2.3	8.3

CODE:
1--Not at all
2--1 to 2 times
3--3 to 4 times
4--5 to 6 times
5--7 to 8 times
6--9 to 10 times
7--11 to 12 times
8--13 to 15 times
9--16 times or more

F2 - Question #77 University Supervisor help

	All necessary	Most needed	Some needed	Little help	No help
CMU 1969	48.7	18.7	18.3	4.0	9.1
CMU 1973	48.8	25.5	18.0	4.3	3.5
Total 1969	46.4	16.1	19.3	6.6	9.9

The number of times during the student teaching contact the university supervisor visited the student teacher (question 76) and the amount of help provided by the university supervisor (question 77) make up the variables in this factor.

The differences in responses between the CMU 1969 and the CMU 1973 groups to both questions 76 (x^2=59.45, df 8) and question 77 (x^2=23.45, df 4) were significant at the .001 level. In both variables for every response, both CMU groups were always associated on one side of the Total 1969 group.

Hypothesis III-F is rejected since significant differences were present in both variables within the factor. It is concluded that visitations and help by the University Supervisor were viewed differently by the CMU 1973 student teachers than by the CMU 1969 student teachers.

Hypothesis III-G

There is no significant difference between the impact of the 1969 Central Michigan University Student Teachers and the 1973 Central Michigan University Student Teachers upon the cooperating school districts as viewed by the respective student teachers, using the following factor - Cooperating Teacher Individualized Instructional Change.

TABLE 38

Student Teacher percentage responses to the variables within the Factor III-G - Cooperating Teacher Individualized Instructional Change.

TABLE 38 (cont.)

G1 - Question #17 Less time of cooperating teacher for individual pupil work

	Frequently	Sometimes	Seldom	Never	Don't know
CMU 1969	1.0	5.8	40.6	46.5	4.8
CMU 1973	1.6	7.9	41.1	46.4	3.0
Total 1969	.8	6.4	37.7	49.4	4.2

G2 - Question #18 Less time of cooperating teacher for individual pupil work because of planning with student teacher

	Frequently	Sometimes	Seldom	Never	Don't know
CMU 1969	.4	5.2	33.4	56.1	3.2
CMU 1973	.5	5.9	34.0	56.8	2.6
Total 1969	.4	4.7	31.2	58.6	3.4

Questions 17 and 18, the two variables in this factor, are concerned with the amount of time the cooperating teacher spends conferring and planning with the student teacher thus lessening the amount of time for individual work with pupils. The differences in responses between the CMU 1969 and the CMU 1973 groups to questions 17 and 18 were not significant.

Therefore, Hypothesis III-G is accepted. It is concluded that the effect of student teachers upon the cooperating teachers in the above areas was basically the same in 1973 as it was in 1969.

Hypothesis III-H

There is no significant difference between the impact of the 1969 Central Michigan University Student Teachers and the 1973 Central Michigan University Student Teachers upon the cooperating school districts as viewed by the respective student teachers, using the following factor - Cooperating Teacher Professional Development.

TABLE 39

Student Teacher percentage responses to the variables within

TABLE 39 (cont.)

the Factor III-H - Cooperating Teacher Professional Development.

H1 - Question #39 Research

	Great deal	Some extent	Not at all	Don't know
CMU 1969	8.7	36.6	17.5	36.2
CMU 1973	11.2	40.5	24.3	24.0

H2 - Question #40 Professional reading or writing

	Great deal	Some extent	Not at all	Don't know
CMU 1969	9.1	28.6	20.9	40.2
CMU 1973	8.6	33.7	27.0	30.5

Two variables make up this factor which is concerned with the professional activities of the cooperating teacher while the student teacher was teaching. Specifically, question 39 was related to research, while question 40 was related to professional reading or writing. The difference in responses between the CMU 1969 and the CMU 1973 groups to question 39 was significant at the .001 level (x^2=25.70, df 3), while the difference in responses between the two CMU groups to question 40 was significant at the .005 level (x^2= 15.62, df 3).

Therefore, Hypothesis III-H is rejected, since significant differences were present in both variables within the factor. It is concluded that because of their student teachers the CMU 1973 cooperating teachers used their released time for professional development in the above areas differently from that of the CMU 1969 cooperating teachers.

Hypothesis III-I

There is no significant difference between the impact of the 1969 Central Michigan University Student Teachers and the 1973 Cen-

tral Michigan University Student Teachers upon the cooperating school districts as viewed by the respective student teachers, using the following factor - Cooperating Teacher Responsibility Change.

TABLE 40

Student Teacher percentage responses to the variables within the Factor III-I - Cooperating Teacher Responsibility Changes

I1 - Question #64 Cooperating teachers fulfilling social obligations because of student teachers

	Great many extra hours	Some extra hours	No extra hours	Don't know
CMU 1969	1.2	29.4	32.2	36.0
CMU 1973	3.0	36.3	30.7	30.0
Total 1969	1.7	25.1	37.2	34.5

I2 - Question #66 Cooperating teachers preparing additional reports

	Great many extra hours	Some extra hours	No extra hours	Don't know
CMU 1969	1.2	40.0	29.8	27.6
CMU 1973	2.2	44.0	37.2	16.5
Total 1969	1.4	47.5	27.8	21.8

I3 - Question #67 Additional cooperating teachers' preparations for teaching

	Great many extra hours	Some extra hours	No extra hours	Don't know
CMU 1969	2.6	18.7	56.3	20.9
CMU 1973	3.6	24.0	57.8	14.7
Total 1969	1.7	19.4	58.4	18.9

The three variables related to this factor concern the extent to which the cooperating teacher engages in the following activities because of the presence of the student teacher: fulfilling social obligations (question 64); preparing additional reports (question 66); and making additional preparations for teaching (question 67).

The differences in responses between the CMU 1969 and the CMU 1973 groups to question 64 (x^2=11.74, df 3) and question 67 (x^2=11.28, df 3) were significant at the .01 level, while the difference in re-

sponses between the two CMU groups to question 66 was significant at the .001 level (x^2=25.40, df 3). On all variables the Total 1969 group separated the two CMU groups in the Don't Know column. This same division was true in the Great Many Extra Hours column for questions 64 and 66 and in the Some Extra Hours column for question 67.

Hypothesis III-I is rejected because significant differences were present in all three variables. It is concluded that because of the presence of student teachers the responsibility role of the CMU 1973 cooperating teachers was different from that of the CMU 1969 cooperating teachers.

Hypothesis III-J

There is no significant difference between the impact of the 1969 Central Michigan University Student Teachers and the 1973 Central Michigan University Student Teachers upon the cooperating school districts as viewed by the respective student teachers, using the following factor - Student Teacher School and Community Involvement.

TABLE 41

Student Teacher percentage responses to the variables within the Factor III-J - Student Teacher School and Community Involvement

J1 - Question #29 Student teacher supervision of youth groups

	Often	Sometimes	No
CMU 1969	7.8	21.7	69.0
CMU 1973	16.3	42.8	40.9
Total 1969	6.4	29.5	62.8

J2 - Question #46 Student teachers chaperoning to relieve staff

	Many times	Once or a few	Not at all
CMU 1969	1.6	15.1	81.7
CMU 1973	4.8	35.6	59.5
Total 1969	2.1	21.2	75.1

TABLE 41 (cont.)

J3 - Question #72 Student teachers' hours of volunteer work in community

	None at all	1-5	6-15	16-30	More than 30
CMU 1969	85.7	8.7	1.4	2.2	.8
CMU 1973	64.8	15.4	8.1	3.1	8.0
Total 1969	81.8	10.8	3.0	1.4	1.5

Questions 29, 46, and 72 are the three variables which make up this factor. Dealing with specific contributions to the school program, question 29 was concerned with time spent in supervising youth groups in meetings, programs, trips, tours, etc. Relieving staff members of chaperoning was the issue of question 46. Finally, question 72 was concerned with the number of hours spent doing volunteer work in the community (youth groups, home service, church work and the like).

The obvious differences in responses between the CMU 1969 and the CMU 1973 groups were significant at the .001 level for question 29 (x^2=102.82, df 2), question 46 (x^2=76.29, df 2), and question 72 (x^2=83.67, df 4). Once again, on all three variables the Total 1969 group served as the divider between the two CMU groups. The only exceptions were the Often column in question 29 and the 16-30 column in question 72.

Hypothesis III-J is rejected since significant differences were present in all three variables within the factor. It is concluded that the CMU 1973 student teachers were more involved in school and community activities of the above nature than the CMU 1969 student teachers.

Hypothesis III-K

There is no significant difference between the impact of the 1969 Central Michigan University Student Teachers and the 1973 Central Michigan University Student Teachers upon the cooperating school districts as viewed by the respective student teachers, using the following factor - Additional Participation of Cooperating Teacher.

TABLE 42

Student Teacher percentage responses to the variables within the Factor III-K - Additional Participation of Cooperating Teacher

K1 - Question #38 Cooperating teacher committee work

	Great deal	Some extent	Not at all	Don't know
CMU 1969	12.3	32.4	26.2	28.0
CMU 1973	12.7	39.0	28.0	20.1
Total 1969	13.5	37.0	24.8	23.3

K2 - Question #41 Cooperating teacher's work with staff

	Great deal	Some extent	Not at all	Don't know
CMU 1969	11.9	41.0	15.3	30.6
CMU 1973	16.9	50.6	14.3	18.1
Total 1969	16.8	42.9	15.0	23.7

K3 - Question #43 Cooperating teacher assistance to principal or other teachers

	Great deal	Some extent	Not at all	Don't know
CMU 1969	8.9	35.8	20.5	33.8
CMU 1973	10.0	46.0	21.7	22.2
Total 1969	10.0	39.0	21.6	27.9

The three variables that make up this factor are concerned with additional activities the cooperating teacher engaged in while the student teacher was teaching. Specifically, question 38 dealt with committee work in the school with pupils and/or staff, question 41 dealt with work with staff of school or department and question 43 dealt with assisting the principal or the teachers.

The differences in responses between the CMU 1969 group and the CMU 1973 group were significant at the .01 level for question 38 (x^2=12.31, df 3) and at the .001 level for question 41 (x^2=31,48, df 3) and question 43 (x^2=23.46, df 3). As in previous factors, the Total 1969 group separated the two CMU groups on all variables and all responses with the exceptions of the Great Deal and Not At All columns for question 38.

Hypothesis III-K is rejected since significant differences were present in all three variables within the factor. It is concluded that the CMU 1973 cooperating teachers spent more time in the above activities than the CMU 1969 cooperating teachers.

Hypothesis III-L

There is no significant difference between the impact of the 1969 Central Michigan University Student Teachers and the 1973 Central Michigan University Student Teachers upon the cooperating school districts as viewed by the respective student teachers, using the following factor - Cooperating Teacher Instructional Change.

TABLE 43

Student Teacher percentage responses to the variables within the Factor III-L - Cooperating Teacher Instructional Change

L1 - Question #57 Cooperating teacher change in teaching activity

	Increased great deal	Some extent	Remained same	Reduced some	Reduced great deal	Don't know
CMU 1969	.4	1.2	5.6	33.6	55.9	1.6
CMU 1973	1.5	2.0	7.3	30.1	54.9	4.2
Total 1969	.6	2.1	6.6	34.6	51.3	3.3

TABLE 43 (cont.)

L2 - Question #58 Cooperating teachers change in lesson planning

	Increased great deal	Some extent	Remained same	Reduced some	Reduced great deal	Don't know
CMU 1969	.4	2.8	19.5	34.6	35.8	5.2
CMU 1973	1.9	5.9	17.2	34.2	35.3	5.6
Total 1969	1.5	4.7	20.6	33.7	31.4	6.1

L3 - Question #59 Cooperating teacher change in paper grading

	Increased great deal	Some extent	Remained same	Reduced some	Reduced great deal	Don't know
CMU 1969	.4	.4	12.7	33.6	45.5	4.8
CMU 1973	1.2	2.5	12.1	29.1	49.3	5.6
Total 1969	1.2	2.5	13.8	33.1	41.8	5.8

These three variables are concerned with the cooperating teacher's time change because of the student teacher's presence in the areas of teaching (question 57), lesson planning (question 58), and paper grading (question 59). The obvious differences in responses between the CMU 1969 group and the CMU 1973 group were significant at the .025 level for question 57 (x^2=12.79, df 5) and question 59 (x^2=13.02, df 5) and at the .05 level for question 58 (x^2=11.75, df 5).

Hypothesis III-L is rejected since significant differences were present in all three variables within the factor. It is concluded that the CMU 1973 cooperating teachers utilized their time in the above activities differently from the CMU 1969 cooperating teachers.

In summary, Hypotheses III-B and III-G are accepted: Hypotheses III-A, III-C, III-D, III-E, III-F, III-H, III-J, III-K and III-L are rejected. Similar to the first two sections of this chapter, in an overwhelming majority of variables, the Total 1969 group acted as a divider for the two CMU groups. The CMU 1973 group tended to be on the more favorable side of the Total 1969 group. This finding

will be discussed further in the next chapter.

SUMMARY

Chapter IV presented the analysis and findings from the data collected from 919 Total Administrators, 4481 Total Cooperating Teachers, 4625 Total Student Teachers, 106 1969 C.M.U. Administrators, 480 1969 C.M.U. Cooperating Teachers, 485 1969 C.M.U. Student Teachers, 203 1973 C.M.U. Administrators, 732 1973 C.M.U. Cooperating Teachers, and 810 1973 C.M.U. Student Teachers.

Three research hypotheses were analyzed and the findings are summarized as follows:

Hypothesis I

The following individual hypotheses (factors) were accepted: Staff Utilization in Non-Instructional Areas, Individualized Instruction, Cooperating Teacher Instructional Change, and Acceptance and Influence of Student Teacher. Therefore, it was concluded that the two CMU programs were not significantly different in the above areas.

The following individual hypotheses (factors) were rejected: Cooperating Teacher Utilization of Student Teacher, Cooperating Teacher Conference with Student Teacher, Additional Participation of Cooperating Teacher, Student Teacher Substitution, Cooperating Teacher Assistance, Non-Instructional Supervision, Cooperating Teacher Professional Development, and Student Teacher Preparation. Therefore, it was concluded that the two CMU programs were significantly different in the above areas.

Hypothesis II

The following individual hypotheses (factors) were accepted:

Special University Service Availability to Staff, Administrator Work Load Change in Counseling and Communication, Pupil Instructional Activity Change, and Student Teacher Effect on Pupils, Staff, and Parents. Therefore, it was concluded that the two CMU programs were not significantly different in the above areas.

The following individual hypotheses (factors) were rejected: Non-Instructional Contributions by the Student Teacher, Instructional Input of Student Teachers, Student Teacher Academic Program, Administrator Utilization of Released Time of Cooperating Teacher, Student Teacher, and Staff, Teaching Utilization of Student Teachers, Normal University Service Availability to Staff, and Additional Participation of Cooperating Teacher. Therefore, it was concluded that the two CMU programs were significantly different in the above areas.

Hypothesis III

The following individual hypotheses (factors) were accepted: Cooperating Teacher Conferencing with Student Teacher, and Cooperating Teacher Individualized Instructional Change. Therefore, it was concluded that the two CMU programs were not significantly different in the above areas.

The following individual hypotheses (factors) were rejected: Staff Utilization in Non-Instructional Areas, Instructional Input of Student Teacher, Student Teacher Substitution, Cooperating Teacher Job-Related Time Change, University Supervisor Assistance, Cooperating Teacher Professional Development, Cooperating Teacher Responsibility Changes, Student Teacher School and Community Involvement, Additional Participation of Cooperating Teacher, and Cooperating Teacher Instructional Change. Therefore, it was concluded that the

two CMU programs were significantly different in the above areas.

Chapter V presents the interpretation of the findings of this chapter and the conclusions of the study. Recommendations for further study are also made.

CHAPTER V

CHAPTER V

DISCUSSION OF FINDINGS

This final chapter begins with a summary of the study. The results of the investigation will then be discussed and recommendations for the future will be made.

Summary

The purpose of the study was to analyze the Central Michigan University data collected in the 1969 Impact Study and the Central Michigan University data collected in 1973 to determine if there was a difference in the impact of Central Michigan University student teachers in those two years upon the cooperating schools in Michigan.

The comparison was based upon factors derived statistically from the responses to specific questions by cooperating teachers, cooperating school administrators, and student teachers. To compare the impact of the two Central Michigan University student teaching programs upon the cooperating schools, the following hypotheses were formulated:

Hypothesis I: There is no significant difference between the impact of the 1969 Central Michigan University Student Teachers and the 1973 Central Michigan University Student Teachers, upon the cooperating school districts as viewed by their respective cooperating teachers, using selected factors.

Hypothesis II: There is no significant difference between the impact of the 1969 Central Michigan University Student Teachers and the 1973 Central Michigan University Student Teachers upon the cooperating school districts as viewed by their respective school administrators, using selected factors.

Hypothesis III: There is no significant difference between the impact of the 1969 Central Michigan University Student Teachers and the 1973 Central Michigan University Student Teachers upon the cooperating school districts as viewed by the respective student teachers, using selected factors.

Discussion of Findings

Differences between the two Central Michigan University student teaching programs were examined by subjecting the data to Chi-Square analysis. The interpretation of the analysis of the data caused a special problem. Most of the responses to the questions have a direction from the middle response which is usually neutral. To name one direction as positive and the other direction as negative involves a personal value judgment. For example, is it positive or negative for student teachers and cooperating teachers to spend many hours in non-student teaching conferences? Not all variables present this problem, but the reader needs to be aware of this situation.

The comparison revealed the following:

(1) Statistically significant differences between the two Central Michigan University programs were found in eight of the twelve individual hypotheses (factors) for the Cooperating Teacher group. Within the twelve individual hypotheses, significant differences were found in 21 of the 42 variables. However, closer examination of the responses of the two CMU groups to the individual variables reveals a very interesting trend. All of the variables in which significant differences were found showed that the CMU 1973 group responded more favorable, as judged by the researcher, toward the CMU 1973 program than did the CMU 1969 group toward the CMU 1969 program. In addition, of the 21 variables in which significant differences were not found, 17 of the variables

followed the same pattern as the variables in which significant differences were found. Three of the variables in which significant differences were not found can be classified as neutral or not favoring either the CMU 1969 or the CMU 1973 programs. Only one of the non-significant variables showed a more favorable response to the CMU 1969 program. This variable, concerned with the extent of time the cooperating teacher spent on paper grading because of the presence of the student teacher, was also in an individual hypothesis which showed no significant differences.

(2) Statistically significant differences between the two Central Michigan University programs were found in eight of the eleven individual hypotheses (factors) for the Cooperating School Administration group. Within the eleven individual hypotheses, significant differences were found in only 15 of the 46 variables. However, a closer examination of the responses of the two CMU groups to the individual variables portrays the same interesting trend discovered in the Cooperating Teacher group. All of the variables in which significant differences were present and all but two of the variables in which significant differences were not found showed that the CMU 1973 group responded more favorably, as judged by the researcher, toward the 1973 CMU program than did the CMU 1969 group toward the 1969 CMU program. The two variables which did not follow the above pattern were classified as neutral or not favoring either program.

(3) Statistically significant differences between the two Central Michigan University programs were found in ten of the twelve individual hypotheses (factors) for the Student Teacher group. Within the twelve

individual hypotheses, significant differences were found in 28 of the 33 variables. However, a closer examination of the responses of the two CMU groups to the individual variables reveals some interesting features. Of the 28 variables in which significant differences were found, 21 showed that the CMU 1973 group responded more favorably, as judged by the researcher, toward the CMU 1973 program than did the CMU 1969 group toward the CMU 1969 program. The five variables in which significant differences were not found were divided with three variables following the pattern of favoring the CMU 1973 program, one variable being classified as neutral to either program, and one variable, which was concerned with the amount of time the cooperating teacher used in conferring with the student teacher not being available for individual pupil work, favoring the CMU 1969 program.

The remaining seven significant variables are difficult to classify. One of the variables showed that the CMU 1969 group responded more favorably to the CMU 1969 program than did the CMU 1973 group toward the CMU 1973 program. This variable was concerned with the time change of the cooperating teacher in lesson planning because of the presence of the student teacher. Another variable is classified as neutral or not favoring either the CMU 1969 or the CMU 1973 programs. The remaining five variables have responses which are very inconsistent. In two of the variables the responses for the CMU 1973 group indicate the addition of many cooperating teacher hours because of the student teacher and also indicate a great reduction of cooperating teacher hours because of the presence of the student teacher. The responses to two other variables for the CMU 1973 group showed that research and professional reading and writing were increased. Yet on

the same two variables, the responses for the CMU 1973 group indicated a larger number of cooperating teachers who did not participate in either of the above areas. One explanation for this could be that the Don't Know column for the CMU 1973 group in both variables was 10 to 12 percent below the CMU 1969 group. The last variable presents a similar case. This variable is concerned with time of the cooperating teacher in paper grading because of the presence of the student teacher. The responses for the CMU 1973 group showed an increase in cooperating teacher paper grading but also showed a great deal of reduction in time of the cooperating teacher in paper grading. Since these five variables are very inconsistent and show no clear direction, they cannot be classified as favoring either the CMU 1969 or the CMU 1973 programs.

Conclusion

In light of the results of this investigation, the full day full semester program developed in 1971 at Central Michigan University must be evaluated as a strong improvement upon the former eight weeks program regarding the impact upon the cooperating schools in Michigan. The qualitative change in the student experience has produced a quality student teaching experience which justifies the cost in additional resources and the separation of faculty and students from the campus.

Recommendations

(1) Central Michigan University should establish a continuous plan for evaluating its product and its program with the main objective of

improving the teacher education program and its impact upon the co-operating schools.

(2) The study should be replicated with another population of Central Michigan University student teachers. In addition, Elementary and Secondary student teachers should be studied separately.

(3) The Impact Study provided a wealth of data which included much demographic information. Many correlations could be made with these data. Brabson used only a small percentage of the Student Teacher information in this manner. Similar studies with the Cooperating Teacher and Cooperating School Administrator data should be done.

(4) A greater in-depth look at the role of the student teacher should be planned. Consistent with the literature and the findings of this study, the student teacher is providing many new insights, materials, ideas, and aids for the schools. In addition, the cooperating teacher becomes more effective. This aspect of the teacher education program might be looked upon as a great in-service vehicle and should be examined further.

(5) Cooperating schools and universities should constantly be encouraged to evaluate the procedures, practices, and effectiveness of their joint teacher education programs.

(6) While the Impact Study instruments are able to provide a wealth of data, more valid shorter instruments to measure the effectiveness of teacher education programs are needed.

(7) The student teacher and cooperating teacher responses to both the 1969 Impact Study and the 1973 Central Michigan University study should be analyzed on a cross-matching basis to see if the individual attitudes are consistent toward the questions (variables).

(8) A factor analysis of the Indiana Student Teaching Study data should be done to determine if factors will emerge which are similar to those factors found in this study.

(9) This study should be utilized to revise the Impact Study questionnaires and to develop scoring scales to rate individuals and/or programs.

APPENDICES

APPENDIX A

Instruments Used In The Study

STUDY OF STUDENT TEACHING IN MICHIGAN

This study is being conducted at the request of the Council of State College Presidents for the purpose of analyzing the effect of student teaching programs on the schools of Michigan. The study is being conducted by all the teacher preparation institutions in Michigan and will involve all student teachers, supervising teachers, and building principals working with student teachers during the fall quarter or semester of 1969.

The instruments were developed with guidance from the research departments of three Michigan institutions, and have been reviewed by Michigan Education Association officials, and the Student Teaching Committee of the Detroit Federation of Teachers. Both groups have made contributions to the items in the instrument and have expressed interest in the findings.

It is expected that the results of this study will be given wide distribution and no doubt will provide a basis for the improvement of student teaching and teacher education programs in Michigan over the next decade.

DIRECTIONS TO RESPONDENTS

1. Use the IBM answer sheet provided. The pre-coding in the upper right block in the answer sheet identifies the teacher education institution and the instrument number for purposes of statistical analysis. There will be no way for your specific answer sheet to be identified once you turn it in. The responses will be machine scored and tabulated on Michigan State University equipment. Since your responses will be combined with those from other institutions it is essential that all respondents use the same procedure.

2. Use the scoring pencil provided and mark the spaces to indicate your answer to each item. Blacken the space completely. Be careful not to put any other marks on the answer sheet.

3. Mark no more than one answer for each item. Please answer every item unless instructed otherwise on the instrument.

4. In the instrument "University" means either "college" or "university" as appropriate. "Supervising teacher" also means "cooperating teacher," "sponsoring teacher," or "critic teacher." Student teacher also means "associate teacher."

STUDENT TEACHING IN MICHIGAN

Student Teacher Questionnaire

1. Which of the following are you now?

   1. A single student teacher
   2. A married student teacher
   3. A supervising (cooperating, sponsoring) teacher
   4. A supervising teacher but with a part-time administrative assignment in addition to teaching
   5. A school administrator

2. What is your sex?

   1. Male
   2. Female

3. Which statement below best describes the community in which you are doing student teaching?

   1. Large central city (e.g., Detroit, Grand Rapids)
   2. Large suburban community (e.g., Livonia, Flint Carmen)
   3. Small suburban community (e.g., Okemos, Essexville)
   4. Medium sized city (e.g., Battle Creek, Kalamazoo)
   5. Small city or rural area (e.g., Niles, Ithaca)

4. What was your status as a student in your college or university when you began this student teaching assignment (contact)?

   1. Had junior standing
   2. Had senior standing
   3. Had the BA or BS degree

5. What is your all-college grade point average?
   (Scale: A=4, B=3, C=2, D=1, F=0)

   1. Below 2.0
   2. 2.0 – 2.5
   3. 2.5 – 3.0
   4. 3.0 – 3.5
   5. Above 3.5

6. How old were you at the beginning of this student teaching assignment (contact)?

   1. 21 years or under
   2. 21 to 21½ years
   3. 21½ to 22 years
   4. 22 to 23 years
   5. Over 23 years

7. How many times have you student taught including the current assignment (contact)?

   1. One
   2. Two
   3. Three

8. In this assignment (contact), how much time were you scheduled in student teaching?

   1. Full-time
   2. Full-time except was also enrolled in a non-student teaching credit course
   3. Half-days
   4. Less than half-days

17. To what extent did conferring with you take time of the teacher so he had less time for individual work with pupils?

1. Frequently
2. Sometimes
3. Seldom
4. Never
5. Don't know

18. To what extent did planning with you take the time of the teacher so he had less time for individual work with pupils?

1. Frequently
2. Sometimes
3. Seldom
4. Never
5. Don't know

19. To what extent was re-teaching necessary after you taught?

1. Frequently
2. Sometimes
3. Seldom
4. Never
5. Don't know

QUESTIONS 20 THROUGH 28

To what extent were any of the following instructional activities for the pupils in your supervising teachers assigned classes changed because of your presence?

20. Amount of small group instruction.

1. Much more
2. Somewhat more
3. No change
4. Somewhat less
5. Much less
6. Don't know

21. Provision for make-up work.

1. Much greater
2. Somewhat greater
3. No change
4. Somewhat less
5. Much less
6. Don't know

22. Follow-up of exams.

1. Much better
2. Somewhat better
3. No change
4. Somewhat poorer
5. Much poorer
6. Don't know

23. Individual attention to, or tutoring of, pupils.

1. Much more
2. Somewhat more
3. No change
4. Somewhat less
5. Much less
6. Don't know

24. Supervision of study periods.

1. Much better
2. Somewhat better
3. No change
4. Somewhat poorer
5. Much poorer
6. Does not apply
7. Don't know

9. In this assignment (contact), how were you placed?

1. With a single supervising teacher
2. In a team-teaching situation (two or more team members)
3. With two or three different teachers (but not team-teaching)
4. In a flexible cluster arrangement
5. In a campus laboratory school
6. In a special program or project different from any of the above

10. How many weeks long is your current assignment (contact)?

1. 5 weeks or less
2. 6 or 7 weeks
3. 8 or 9 weeks
4. 10 or 11 weeks
5. 12 to 14 weeks
6. More than 14 weeks

11. What is your primary current student teaching assignment (contact)?

1. Grades K, 1, 2
2. Grades 3, 4
3. Grades 5, 6
4. All elementary grades
5. Middle School
6. Junior High School
7. Senior High School
8. All grades K - 12

12. To what subject area or teaching field were you primarily assigned for student teaching (check one answer only from item 12 and 13)

1. All elementary subjects (K-5 or K-6)
2. Art
3. Business Education
4. English
5. Elementary departmental or block program
6. Elementary ungraded program
7. Foreign language
8. Home Economics
9. Mathematics
10. Music

13.

1. Physical Education (Elementary)
2. Physical Education (Secondary)
3. Science (Biology, Chemistry, Physics)
4. Science (General, Natural, Earth)
5. Social Studies (including History)
6. Social Science – English combination
7. Special Education
8. Speech
9. Vocational or Industrial Arts Education
10. Other

QUESTIONS 14 THROUGH 18 deal with any changes in individualized instruction provided for the pupils which may have resulted from your presence.

14. To what extent did **you** work with (e.g., instruct, counsel, tutor) individual pupils?

1. A great deal
2. To some extent
3. A little bit
4. Not at all

15. To what extent did **your supervising teacher** work with individual pupils as compared to when he does not have a student teacher?

1. Much more than usual
2. Somewhat more than usual
3. About the same as usual
4. Somewhat less than usual
5. Much less than usual
6. Don't know

16. To what extent was individual help or counseling provided the pupils during non-class hours as compared to what would have been possible if you had not been present?

1. Much more than usual
2. Somewhat more than usual
3. About the same as usual
4. Somewhat less than usual
5. Much less than usual
6. Don't know

25. Supervision of playgrounds, hallways, etc.

1. Much better
2. Somewhat better
3. No change
4. Somewhat poorer
5. Much poorer
6. Does not apply
7. Don't know

26. Amount of material covered.

1. Much more
2. Somewhat more
3. No change
4. Somewhat less
5. Much less
6. Don't know

27. Discipline.

1. Much better
2. Somewhat better
3. No change
4. Somewhat poorer
5. Much poorer
6. Don't know

28. Motivation of pupils.

1. Much better
2. Somewhat better
3. No change
4. Somewhat poorer
5. Much poorer
6. Don't know

QUESTIONS 29 THROUGH 33 deal with the contributions you may have made to the school program. Did you make any specific contributions to the school, pupils, or teachers, such as:

29. Supervise youth groups in meetings, programs, trips, tours, etc.?

1. Often
2. Sometimes
3. No

30. Give talks to parent's group?

1. Often
2. Sometimes
3. No

31. Perform recess, lunch, gymnasium, playground, or hall duty?

1. Often
2. Sometimes
3. No

32. Did you bring, develop, provide, or suggest any new or different instructional materials?

1. A great many
2. Some
3. No
4. I am not sure

33. Did you suggest or provide any other kinds of aid or ideas?

1. A great many
2. Some
3. No
4. I am not sure

34. How do you feel your contributions (32 and 33) were received?

1. They were used
2. They were not used
3. I was discouraged from making such contributions
4. I really did not have much to offer

35. How many hours per week on the average did you teach your supervising teacher's assigned classes?

1. Less than an hour a week
2. One to five hours per week
3. Six to ten hours per week
4. Eleven to fifteen hours per week
5. Sixteen to twenty hours per week
6. More than twenty hours per week

36. How many hours per week on the average was your supervising teacher able to be away from the classroom while you were teaching his assigned classes?

1. Less than 1
2. 1 – 5
3. 6 – 10
4. 11 – 15
5. 16 – 20
6. More than 20

QUESTION 37 THROUGH 44

To what extent did your supervising teacher engage in any of the following additional activities during the time you were teaching his assigned classes?

37. Visitation in other classrooms or schools.

1. A great deal
2. To some extent
3. Not at all
4. Don't know

38. Committee work in the school with pupils and/or staff.

1. A great deal
2. To some extent
3. Not at all
4. Don't know

39. Research.

1. A great deal
2. To some extent
3. Not at all
4. Don't know

40. Professional reading or writing.

1. A great deal
2. To some extent
3. Not at all
4. Don't know

41. Work with staff of school or department.

1. A great deal
2. To some extent
3. Not at all
4. Don't know

42. Participating in supervising teacher seminars or other in-service activities dealing with student teaching.

1. A great deal
2. To some extent
3. Not at all
4. Don't know

43. Assisting the principal or other teachers.

1. A great deal
2. To some extent
3. Not at all
4. Don't know

44. Social or recreational activities.

1. A great deal
2. To some extent
3. Not at all
4. Don't know

QUESTION 45 THROUGH 49

To what extent did you relieve other regular staff members who did not have student teachers of the following activities?

45. Teaching.

1. Many times
2. Once or a few times
3. Not at all

46. Chaperoning.

1. Many times 2. Once or a few times 3. Not at all

47. Supervision of lunch duty.

1. Many times 2. Once or a few times 3. Not at all

48. Supervision of study hall.

1. Many times 2. Once or a few times 3. Not at all

49. Supervision of playground.

1. Many times 2. Once or a few times 3. Not at all

QUESTION 50 THROUGH 53

To what extent were other staff members able to engage in any of the following activities because of your presence in the building?

50. Visitation in other classrooms or schools.

1. Many times
2. To some extent
3. Not at all
4. Don't know

51. Committee work in the school.

1. A great deal
2. To some extent
3. Not at all
4. Don't know

52. Research.

1. A great deal
2. To some extent
3. Not at all
4. Don't know

53. Professional reading or writing.

1. A great deal
2. To some extent
3. Not at all
4. Don't know

54. How many hours per week on the average do you estimate you spent in the physical presence (close enough to see or talk with) of your supervising teacher?

1. Less than 10
2. 10 to 15
3. 16 to 20
4. 21 to 25
5. 26 to 30
6. 31 to 35
7. 36 to 40
8. More than 40

55. How did your presence as a student teacher affect the average number of hours per week your supervising teacher spent at school as compared to when he does not have a student teacher?

1. Added more than six hours per week.
2. Added three to six hours per week.
3. Added one to three hours per week.
4. Added up to one hour per week.
5. Had no effect.
6. Reduced by up to one hour per week.
7. Reduced by one to three hours per week.
8. Reduced by three to six hours per week.
9. Reduced by more than six hours per week.
10. I am unable to judge.

56. How did your presence affect the average number of hours per week your supervising teacher worked on job related activities away from school?

1. Added more than six hours per week.
2. Added three to six hours per week.
3. Added one to three hours per week.
4. Added up to one hour per week.
5. Had no effect.
6. Reduced by up to one hour per week.
7. Reduced by one to three hours per week.
8. Reduced by three to six hours per week.
9. Reduced by more than six hours per week.
10. I am unable to judge.

QUESTION 57 THROUGH 60

To what extent was the time your supervising teacher spent on the following activities changed because of your presence?

57. Teaching

1. Increased a great deal
2. Increased to some extent
3. Remained about the same
4. Reduced to some extent
5. Reduced a great deal
6. Don't know

58. Lesson Planning

1. Increased a great deal
2. Increased to some extent
3. Remained about the same
4. Reduced to some extent
5. Reduced a great deal
6. Don't know

59. Paper grading

1. Increased a great deal
2. Increased to some extent
3. Remained about the same
4. Reduced to some extent
5. Reduced a great deal
6. Don't know

60. Help to individual students

1. Increased a great deal
2. Increased to some extent
3. Remained about the same
4. Reduced to some extent
5. Reduced a great deal
6. Don't know

QUESTION 61 THROUGH 68

To what extent did your supervising teacher engage in the following activities because of your presence?

61. Planning with you

1. A great many extra hours
2. Some extra hours
3. No extra hours

62. Evaluating your progress and activities

1. A great many extra hours
2. Some extra hours
3. No extra hours

63. Holding casual and/or personal conversations not really a part of student teaching.

1. A great many extra hours
2. Some extra hours
3. No extra hours

64. Fulfilling social obligations resulting from your presence

1. A great many extra hours
2. Some extra hours
3. No extra hours
4. Don't know

65. Finding housing for you

1. A great many extra hours
2. Some extra hours
3. No extra hours
4. Don't know

66. Preparing additional reports

1. A great many extra hours
2. Some extra hours
3. No extra hours
4. Don't know

67. Making additional preparations for teaching

1. A great many extra hours
2. Some extra hours
3. No extra hours
4. Don't know

68. Holding telephone conversations or other conferences with you

1. A great many extra hours
2. Some extra hours
3. No extra hours
4. Don't know

69. How many times per week on the average did you have contact with your supervising teacher outside of regular working hours at school? (Telephone, conferences, social engagements, etc.)

1. Less than one
2. One to three
3. Four to six
4. Seven to nine
5. Ten or more

70. How many days during student teaching did you handle classes for your supervising teacher while he was away for reasons other than student teaching business (professional work, request of principal or other people, personal or private affairs outside of school) in which a substitute teacher would have had to be hired if you had not been there?

1. None
2. Less than one
3. One to three
4. Four to seven
5. Eight to ten
6. More than ten

71. During student teaching how many days did you handle classes for any teacher(s) other than your supervising teacher, while that teacher was away from class?

1. None
2. One or less
3. Two to four
4. Five to seven
5. Eight to ten
6. More than ten

72. How many hours do you estimate you spent doing volunteer work in the community where you were assigned for student teaching (youth groups, home service, church work and the like) during your student teaching period?

1. None at all
2. One to five hours
3. Six to fifteen hours
4. Sixteen to thirty hours
5. More than thirty hours

73. What effect do you feel working with student teachers has had on the performance of your supervising teacher?

1. Has made him a much more effective teacher
2. Has made him a more effective teacher
3. Has had no effect on his teaching
4. Has made him a less effective teacher
5. Has made him a much less effective teacher
6. I am unable to judge

74. What do you think should be the attitude of the administration and teachers in the school to which you were assigned about working with student teachers?

1. Should aggressively seek student teachers
2. Should seek student teachers
3. Should accept student teachers if asked
4. Should resist having student teachers in the school
5. Should refuse to have student teachers in the school
6. I am unable to judge

75. What recommendation would you give your friends about accepting a student teaching assignment in the same school with the same supervising teacher (or in the same project)?

1. Accept with enthusiasm
2. Accept
3. Be neutral
4. Try for a different assignment
5. Reject the assignment

76. How many times has the university coordinator or supervisor of student teaching been in your school during your student teaching contact?

1. Not at all
2. 1 to 2 times
3. 3 to 4 times
4. 5 to 6 times
5. 7 to 8 times
6. 9 to 10 times
7. 11 to 12 times
8. 13 to 15 times
9. 16 times or more

77. How much help has the university coordinator (supervisor) provided you?

1. All the help I felt was necessary
2. Most of the help I felt was needed
3. Some of the help I felt I needed
4. Little of the help I felt was needed
5. No help at all

78. To what extent have your supervising teacher and/or other school personnel been helpful to you on matters not directly concerned with student teaching?

1. They have gone out of their way to be helpful
2. They have helped when asked
3. They have not helped
4. No such help was needed

79. Would you accept a teaching position if offered for next year in the building or system in which you did your student teaching?

1. Yes
2. No, because I intend to go to graduate school
3. No, because I plan to live in another geographic area
4. No, for personal reasons
5. No, for professional reasons
6. No, because I have decided not to teach

80 Why were you assigned to this particular student teaching station?

1. I requested this school or area.
2. I requested this kind of program or project.
3. I had no particular preference and was placed in this assignment by my college or university.
4. I really preferred a different assignment but was placed in this one by my college or university.
5. I was required to accept this assignment even though I expressed a strong preference for a different one.

STUDY OF STUDENT TEACHING IN MICHIGAN

This study is being conducted at the request of the Council of State College Presidents for the purpose of analyzing the effect of student teaching programs on the schools of Michigan. The study is being conducted by all the teacher preparation institutions in Michigan and will involve all student teachers, supervising teachers, and building principals working with student teachers during the fall quarter or semester of 1969.

The instruments were developed with guidance from the research departments of three Michigan institutions, and have been reviewed by Michigan Education Association officials, and the Student Teaching Committee of the Detroit Federation of Teachers. Both groups have made contributions to the items in the instrument and have expressed interest in the findings.

It is expected that the results of this study will be given wide distribution and no doubt will provide a basis for the improvement of student teaching and teacher education programs in Michigan over the next decade.

DIRECTIONS TO RESPONDENTS

1. Use the IBM answer sheet provided. The pre-coding in the upper right block in the answer sheet identifies the teacher education institution and the instrument number for purposes of statistical analysis. There will be no way for your specific answer sheet to be identified once you turn it in. The responses will be machine scored and tabulated on Michigan State University equipment. Since your responses will be combined with those from other institutions it is essential that all respondents use the same procedure.

2. Use the scoring pencil provided and mark the spaces to indicate your answer to each item. Blacken the space completely. Be careful not to put any other marks on the answer sheet.

3. Mark no more than one answer for each item. Please answer every item unless instructed otherwise on the instrument.

4. In the instrument "University" means either "college" or "university" as appropriate. "Supervising teacher" also means "cooperating teacher," "sponsoring teacher," or "critic teacher." Student teacher also means "associate teacher."

STUDENT TEACHING IN MICHIGAN

Teacher Questionnaire

1. Which of the following are you now?

   1. A single student teacher
   2. A married student teacher
   3. A supervising (cooperating, sponsoring) teacher
   4. A supervising teacher but with a part-time administrative assignment in addition to teaching
   5. A school administrator

2. What is your sex?

   1. Male
   2. Female

3. Which statement below best describes the community in which you teach?

   1. Large central city (e.g., Detroit, Grand Rapids)
   2. Large suburban community (e.g., Livonia, Flint Carmen)
   3. Small suburban community (e.g., Okemos, Essexville)
   4. Medium sized city (e.g., Battle Creek, Kalamazoo)
   5. Small city or rural area (e.g., Niles, Ithaca)

4. How many years of teaching have you completed including this year?

   1. Three or less years
   2. Four to seven years
   3. Eight to twelve years
   4. More than twelve years

5. How many different colleges or universities have been represented by the student teachers with whom you have worked?

   1. Only one
   2. Two
   3. Three
   4. Four to six
   5. More than six

6. With how many student teachers have you worked in the last 5 years? (Include your current student teacher)

   1. One
   2. Two
   3. Three
   4. Four
   5. Five
   6. Six to ten
   7. More than ten

7. How well do you feel your present student teacher was prepared to enter student teaching?

   1. Extremely well prepared
   2. Well prepared
   3. Adequately prepared
   4. Minimally prepared
   5. Inadequately prepared

8. In this assignment (contact), how was your student teacher scheduled in student teaching?

   1. Full-time
   2. Full-time except he was also enrolled in a non-student teaching credit course
   3. Half-days
   4. Less than half-days

9. In this assignment (contact) how was your student teacher placed?

1. With you as the single supervising teacher.
2. In a team-teaching situation (two or more team members).
3. With two or three different teachers (but not team-teaching).
4. In a flexible cluster arrangement.
5. In a campus laboratory school.
6. In a special program or project different from any of the above.

10. How many weeks is your student teacher scheduled in this assignment (contact)?

1. 5 weeks or less
2. 6 or 7 weeks
3. 8 or 9 weeks
4. 10 or 11 weeks
5. 12 to 14 weeks
6. More than 14 weeks

11. What is your own current teaching assignment?

1. Grades K, 1, 2
2. Grades 3, 4
3. Grades 5, 6
4. All elementary grades
5. Middle School
6. Junior High School
7. Senior High School
8. All grades K - 12

12. To what subject area or teaching field are you primarily assigned? (Check one answer only from item 12 and 13.)

1. All elementary subjects K-5 or K-6
2. Art
3. Business Education
4. English
5. Elementary departmental or block program
6. Elementary ungraded program
7. Foreign Language
8. Home Economics
9. Mathematics
10. Music

13.

1. Physical Education (Elementary)
2. Physical Education (Secondary)
3. Science (Biology, Chemistry, Physics)
4. Science (General, Natural, Earth)
5. Social Studies (including History)
6. Social Science – English combination
7. Special Education
8. Speech
9. Vocational or Industrial Arts Education
10. Other

QUESTIONS 14 THROUGH 18 deal with any changes in individualized instruction for the pupils which may have resulted from your student teacher's presence.

14. To what extent did your **student teacher** work with (instruct, counsel, tutor) individual pupils?

1. A great deal
2. To some extent
3. A little bit
4. Not at all

15. To what extent did **you** work with individual pupils as compared to when you do not have a student teacher?

1. Much more than usual
2. Somewhat more than usual
3. About the same as usual
4. Somewhat less than usual
5. Much less than usual

16. To what extent was individual help or counseling provided your pupils during non-class hours as compared to what would have been possible if you had not had a student teacher?

1. Much more than usual
2. Somewhat more than usual
3. About the same as usual
4. Somewhat less than usual
5. Much less than usual

17. To what extent did conferring with your student teacher take your time so you had less time for individual work with pupils?

1. Frequently
2. Sometimes
3. Seldom
4. Never

18. To what extent did planning with your student teacher take your time so that you had less time for individual work with pupils?

1. Frequently
2. Sometimes
3. Seldom
4. Never

19. To what extent was re-teaching necessary after the student teacher taught?

1. Frequently
2. Sometimes
3. Seldom
4. Never

QUESTION 20 THROUGH 28

To what extent were any of the following instructional activities for your pupils changed because of your student teacher's presence?

20. Amount of small group instruction.

1. Much more
2. Somewhat more
3. No change
4. Somewhat less
5. Much less

21. Provision for make-up work

1. Much greater
2. Somewhat greater
3. No change
4. Somewhat less
5. Much less

22. Follow-up of exams

1. Much better
2. Somewhat better
3. No change
4. Somewhat poorer
5. Much poorer

23. Individual attention to, or tutoring of, pupils

1. Much more
2. Somewhat more
3. No change
4. Somewhat less
5. Much less

24. Supervision of study periods

1. Much better
2. Somewhat better
3. No change
4. Somewhat poorer
5. Much poorer
6. Does not apply

25. Supervision of playgrounds, hallways, etc.

1. Much better
2. Somewhat better
3. No change
4. Somewhat poorer
5. Much poorer
6. Does not apply

26. Amount of material covered

1. Much more
2. Somewhat more
3. No change
4. Somewhat less
5. Much less

27. Discipline

1. Much better
2. Somewhat better
3. No change
4. Somewhat poorer
5. Much poorer

28. Motivation of pupils

1. Much better
2. Somewhat better
3. No change
4. Somewhat poorer
5. Much poorer

QUESTIONS 29 THROUGH 31 deal with the contributions your student teacher may have made to the school program. Did your student teacher make any specific contributions to the school, pupils, or teachers, such as

29. Supervise youth groups in meetings, programs, trips, tours, etc.?

1. Often
2. Sometimes
3. No
4. Don't know

30. Give talk to parent's group?

1. Often
2. Sometimes
3. No
4. Don't know

31. Perform recess, lunch, gymnasium, playground or hall duty?

1. Often
2. Sometimes
3. No
4. Don't know

32. Did your student teacher bring, develop, provide, or suggest any new or different instructional materials?

1. A great many
2. Some
3. No

33. Did your student teacher suggest or provide any other kinds of aid or ideas?

1. A great many
2. Some
3. No

34. What use were you able to make of the contributions (32 & 33) of your student teacher?

1. I used them.
2. I did not use them.
3. I had to discourage him from contributing too freely.
4. My student teacher really did not have much to offer.

35. How many hours per week on the average did your student teacher teach your assigned classes?

1. Less than an hour a week.
2. One to five hours per week.
3. Six to ten hours per week.
4. Eleven to fifteen hours per week.
5. Sixteen to twenty hours per week.
6. More than twenty hours per week.

36. How many hours per week on the average were you able to be away from the classroom while your student teacher was teaching your assigned classes?

1. Less than one
2. 1 – 5
3. 6 – 10
4. 11 – 15
5. 16 – 20
6. More than 20

To what extent did you engage in any of the following additional activities during the time your student teacher was teaching?

37. Visitation in other classrooms or schools.

1. A great deal 2. To some extent 3. Not at all

38. Committee work in the school with pupils and/or staff.

1. A great deal 2. To some extent 3. Not at all

39. Research.

1. A great deal 2. To some extent 3. Not at all

40. Professional reading or writing

1. A great deal 2. To some extent 3. Not at all

41. Work with staff of school or department

1. A great deal 2. To some extent 3. Not at all

42. Participating in supervising teacher seminars or other in-service activities dealing with student teaching.

1. A great deal 2. To some extent 3. Not at all

43. Assisting the principal or other teachers

1. A great deal 2. To some extent 3. Not at all

44. Social or recreational activities

1. A great deal 2. To some extent 3. Not at all

QUESTION 45 THROUGH 49

To what extent did your student teacher relieve other regular staff members who did not have student teachers of the following activities?

45. Teaching

1. Many times
2. Once or a few times
3. Not at all
4. Don't know

46. Chaperoning

1. Many times
2. Once or a few times
3. Not at all
4. Don't know

47. Supervision of lunch duty

1. Many times
2. Once or a few times
3. Not at all
4. Don't know

48. Supervision of study hall

1. Many times
2. Once or a few times
3. Not at all
4. Don't know

49. Supervision of playground

1. Many times
2. Once or a few times
3. Not at all
4. Don't know

QUESTION 50 THROUGH 53

To what extent were other staff members able to engage in any of the following activities because of the presence of student teachers in the building?

50. Visitation in other classrooms or schools

1. Many times
2. To some extent
3. Not at all
4. Don't know

51. Committee work in the school

1. A great deal
2. To some extent
3. Not at all
4. Don't know

52. Research

1. A great deal
2. To some extent
3. Not at all
4. Don't know

53. Professional reading or writing

1. A great deal
2. To some extent
3. Not at all
4. Don't know

54. How many hours per week on the average do you estimate you spent in the physical presence (close enough to see or talk with) of your student teacher?

1. Less than 10
2. 10 to 15
3. 16 to 20
4. 21 to 25
5. 26 to 30
6. 31 to 35
7. 36 to 40
8. More than 40

55. How did the presence of a student teacher affect the average number of hours per week you spent at school as compared to when you do not have a student teacher?

1. Added more than six hours per week
2. Added three to six hours per week
3. Added one to three hours per week
4. Added up to one extra hour per week
5. Had no effect
6. Reduced by up to one hour per week
7. Reduced by one to three hours per week
8. Reduced by three to six hours per week
9. Reduced more than six hours per week

56. How did your student teacher's presence affect the average number of hours per week you worked on job-related activities away from school?

1. Added more than six hours per week
2. Added three to six hours per week
3. Added one to three hours per week
4. Added up to one hour per week
5. Had no effect
6. Reduced by up to one hour per week
7. Reduced by one to three hours per week
8. Reduced by three to six hours per week
9. Reduced more than six hours per week

QUESTION 57 THROUGH 60

To what extent was the time you spent on any of the following activities changed because of your student teacher's presence?

57. Teaching

1. Increased a great deal
2. Increased to some extent
3. Remained about the same
4. Reduced to some extent
5. Reduced a great deal

58. Lesson Planning

1. Increased a great deal
2. Increased to some extent
3. Remained about the same
4. Reduced to some extent
5. Reduced a great deal

59. Paper Grading

1. Increased a great deal
2. Increased to some extent
3. Remained about the same
4. Reduced to some extent
5. Reduced a great deal

60. Help to individual students

1. Increased a great deal
2. Increased to some extent
3. Remained about the same
4. Reduced to some extent
5. Reduced a great deal

QUESTION 61 THROUGH 69

To what extent did you engage in the following activities because of the presence of the student teacher?

61. Planning with or for your student teacher

1. A great many extra hours
2. Some extra hours
3. No extra hours

62. Evaluating your student teacher's progress or activities

1. A great many extra hours
2. Some extra hours
3. No extra hours

63. Holding casual and/or personal conversations not really a part of student teaching.

1. A great many extra hours
2. Some extra hours
3. No extra hours

64. Fulfilling the social obligations resulting from your student teacher's presence.

1. A great many extra hours
2. Some extra hours
3. No extra hours

65. Finding housing for your student teacher.

1. A great many extra hours
2. Some extra hours
3. No extra hours

66. Preparing additional reports.

1. A great many extra hours
2. Some extra hours
3. No extra hours

67. Making additional preparation for teaching.

1. A great many extra hours
2. Some extra hours
3. No extra hours

68. Holding telephone conversations or other conferences with your student teacher.

1. A great many extra hours
2. Some extra hours
3. No extra hours

69. How many times per week on the average did you have contact with your student teacher outside of regular working hours at school? (Telephone, conferences, social engagements, etc.)

1. Less than one
2. One to three
3. Four to six
4. Seven to nine
5. Ten or more

70. How many days during student teaching did your student teacher handle classes for you while you were away for reasons other than student teaching business (professional work, request of principal or other people, personal or private affairs outside of school) in which a substitute would have had to be hired if the student teacher had not been there?

1. None
2. Less than one
3. One to three
4. Four to seven
5. Eight to ten
6. More than ten

71. During student teaching how many days did your student teacher handle classes for any teacher other than yourself while that teacher was away from his class?

1. None
2. One or less
3. Two to four
4. Five to seven
5. Eight to ten
6. More than ten

72. How many hours do you estimate your student teacher spent doing volunteer work in the community where he was assigned for student teaching (youth groups, home service, church work and the like) during his student teaching period?

1. None at all
2. One to five hours
3. Six to fifteen hours
4. Sixteen to thirty hours
5. More than thirty hours

73. What effect do you feel working with student teachers has had on your own teaching performance?

1. Has made me a much more effective teacher
2. Has made me a more effective teacher
3. Has had no effect on my teaching
4. Has made me a less effective teacher
5. Has made me a much less effective teacher

74. What do you think should be the attitude of the administrators and teachers in your school about working with student teachers?

1. Should aggressively seek student teachers
2. Should seek student teachers
3. Should accept student teachers
4. Should resist having student teachers in the school
5. Should refuse to have student teachers in the school

75. If you were starting over, would you accept another student teacher with similar credentials from the same institution under the same general circumstances?

1. I would accept with enthusiasm
2. I would accept
3. I feel neutral about it
4. I would probably decline
5. I would refuse

76. How many times has the university coordinator or supervisor of student teaching been in your school during this student teaching contact?

1. Not at all
2. One to two times
3. Three to four times
4. Five to six times
5. Seven to eight times
6. Nine to ten times
7. Eleven to twelve times
8. Thirteen to fifteen times
9. Sixteen or more times

77. How much help has the university coordinator (supervisor) provided you?

1. All the help I felt was necessary
2. Most of the help I felt was needed
3. Some of the help I felt I needed
4. Little of the help I felt was needed.
5. No help at all

78. Has the university coordinator been helpful to you with any matters not directly concerned with student teaching?

1. He has gone out of his way to be helpful
2. He has helped when asked
3. He has not helped
4. No such help was needed

79. Would you want your student to teach in your building or system next year?

1. Yes
2. No, but would recommend him in a different system or building
3. No

80. Why was this student teacher assigned to you?

1. I volunteered since I feel a professional obligation to help prepare future teachers.
2. I volunteered but only because I felt pressure from an administrator to do so.
3. I volunteered because I thought a student teacher would be helpful to me in performing my school duties.
4. I did not volunteer but was requested by an administrator to take the student teacher.
5. I was forced to work with the student teacher against my will.

STUDY OF STUDENT TEACHING IN MICHIGAN

Administrator Questionaire

DIRECTIONS TO RESPONDENTS

1. Use the IBM answer sheet provided. Do not write anything in the name or student number spaces at the top of the sheet. Thus, there will be no way for your specific answer sheet to be identified once you turn it in.

2. Use a #2 scoring pencil and mark the spaces to indicate your answer to each item. Blacken the space completely. Be careful not to put any other marks on the answer sheet.

3. Note that the answer spaces go from left to right rather than down.

4. Mark no more than one answer for each item. Please answer every item.

5. In the instrument "University" means either "college" or "university" as appropriate. "Supervising teacher" also means "cooperating teacher," "sponsoring teacher," or "critic teacher." Student teacher also means "associate teacher."

STUDENT TEACHING IN MICHIGAN

Administrator Questionnaire

1. Which of the following are you now?

   1. A single student teacher
   2. A married student teacher
   3. A supervising (cooperating, sponsoring) teacher
   4. A supervising teacher but with a part-time administrative assignment in addition to teaching
   5. A single school administrator
   6. A married school administrator

2. What is your sex?

   1. Male
   2. Female

3. What is your present administrative assignment?

   1. Building Principal - elementary school
   2. Building Principal - middle school
   3. Building Principal - junior high school
   4. Building Principal - combined junior-senior high school
   5. Building Principal - senior high school
   6. Other

4. Which statement below best describes the community in which your school is located?

   1. Large central city (e.g., Detroit, Grand Rapids)
   2. Large suburban community (e.g., Livonia, Flint Carmen)
   3. Small suburban community (e.g., Okemos, Essexville)
   4. Medium sized city (e.g., Battle Creek, Kalamazoo)
   5. Small city or rural area (e.g., Niles, Ithaca)

5. For how many years have you been a school administrator?

   1. Two or less
   2. Three to five
   3. Six to nine
   4. Ten to twelve
   5. More than twelve

6. For how many years have you been an administrator in your present building?

   1. Two or less
   2. Three to five
   3. Six to nine
   4. Ten to twelve
   5. More than twelve

7. How many pupils are assigned to your building?

1. 0 - 300
2. 301 - 500
3. 501 - 700
4. 701 - 900
5. 901 - 1100
6. 1101 - 1300
7. 1301 - 1500
8. 1501 - 1700
9. 1701 - 1900
10. 1901 or more

8. How many teachers are assigned in your building?

1. 10 or less
2. 11 to 20
3. 21 to 30
4. 31 to 40
5. 41 to 50
6. 51 to 60
7. 61 to 70
8. 71 to 80
9. 81 to 90
10. 91 to more

9. For how many years have student teachers been assigned in the building in which you are presently the administrator?

1. Three or less
2. Four to six
3. Seven to nine
4. Ten to twelve
5. Thirteen to fifteen
6. More than fifteen

10. How many student teachers are assigned to your building at the present time?

1. One
2. Two
3. Three
4. Four
5. Five
6. Six
7. Seven
8. Eight
9. Nine
10. Ten or more

11. What is the optimum number of student teachers you can accommodate in your building each year?

1. None
2. One to three
3. Four to six
4. Seven to nine
5. Ten to twelve
6. Thirteen to fifteen
7. Sixteen to eighteen
8. Nineteen to twenty-one
9. Twenty-two to twenty-five
10. More than twenty-five

12. How many different colleges or universities have been represented by the student teachers assigned to your building in the last two years?

1. One
2. Two
3. Three
4. Four to six
5. More than six

13. How well do you feel the student teacher(s) presently assigned to your building were prepared to enter student teaching?

    1. Extremely well prepared
    2. Very well prepared
    3. Adequately prepared
    4. Minimally prepared
    5. Inadequately prepared

14. For what proportion of their time are the majority of the student teachers assigned to your building scheduled by their institution to student teaching?

    1. Full days
    2. Half days
    3. Less than half days

Question 15 through 26 deal with the contributions student teachers may have made to the school program in your building. Use the following code for question 15 through 21:

    1. Often
    2. Sometimes
    3. No
    4. Does not apply
    5. Don't know

Have student teachers made any specific contributions to the school, pupils, or teachers, such as:

15. Supervise youth groups in meetings, programs, trips, tours, etc.?

16. Give talks to parents group?

17. Perform recess, lunch, gymnasium, playground or hall duty?

18. Chaperone social activities for pupils?

19. Supervise study halls?

20. Coach or assist in interscholastic or extracurricular activities?

21. Assist in handling discipline problems?

* * * * *

22. How many new or different instructional materials have student teachers brought, developed, provided, or suggested to the school teachers?

    1. A great many
    2. Quite a few
    3. Some
    4. A very few
    5. None

23. To what extent have student teachers suggested or provided any other kinds of aids or ideas?

1. Often
2. Sometimes
3. Seldom
4. Never

24. What use have your teachers been able to make of the contributions (22 & 23) of student teachers?

1. They always use them
2. They sometimes use them
3. They do not use them
4. They discourage student teachers from contributing too freely
5. Student teachers really do not have much to offer

25. How many hours per week on the average do student teachers in your building teach their supervising teachers assigned classes?

1. Less than an hour a week
2. One to five hours per week
3. Six to ten hours per week
4. Eleven to fifteen hours per week
5. Sixteen to twenty hours per week
6. More than twenty hours per week

26. How many hours per week on the average are your teachers able to be away from their classroom while student teachers teach their assigned classes?

1. Less than one
2. One to five
3. Six to ten
4. Eleven to fifteen
5. Sixteen to twenty
6. More than twenty

Questions 27 through 39 - To what extent are any of the following instructional activities for pupils changed because of the presence of the student teachers in your building?

27. Amount of small group instruction.

1. Much more
2. Somewhat more
3. No change
4. Somewhat less
5. Much less

28. Provision for make-up work.

1. Much greater
2. Somewhat greater
3. No change
4. Somewhat less
5. Much less

29. Follow-up of exams.

1. Much better
2. Somewhat better
3. No change
4. Somewhat poorer
5. Much poorer

30. Individual counseling of pupils.

1. Much more
2. Somewhat more
3. No change
4. Somewhat less
5. Much less

31. Supervision of study periods.

1. Much better
2. Somewhat better
3. No change
4. Somewhat poorer
5. Much poorer

32. Supervision of playgrounds, hallways, etc.

1. Much better
2. Somewhat better
3. No change
4. Somewhat poorer
5. Much poorer

33. Amount of reteaching necessary.

1. Much more
2. Somewhat more
3. No change
4. Somewhat less
5. Much less

34. Discipline.

1. Much better
2. Somewhat better
3. No change
4. Somewhat poorer
5. Much poorer

35. Motivation of pupils.

1. Much better
2. Somewhat better
3. No change
4. Somewhat poorer
5. Much poorer

36. Use of audio visual materials

1. Much more
2. Somewhat more
3. No change
4. Somewhat less
5. Much less

37. Use of field trips.

1. Much more frequent
2. Somewhat more frequent
3. No change
4. Somewhat less frequent
5. Much less frequent

38. Individual instruction or tutoring of pupils.

1. Much more
2. Somewhat more
3. No change
4. Somewhat less
5. Much less

39. Overall quality of instruction.

1. Much better
2. Somewhat better
3. No change
4. Somewhat poorer
5. Much poorer

Questions 40 through 50 - How do you feel the availability of the following university services has influenced the attitude of your staff concerning working with student teachers?

Use the following code for questions 40 through 50:

1. Has had a very positive effect
2. Has had a positive effect
3. Has had no effect
4. Has had a negative effect
5. Has had a very negative effect
6. This service has not been available and would have had no effect if available
7. This service has not been available but would have had a positive effect if available
8. This service has not been available but would have had a very positive effect if available
9. I do not know whether or not this service is available

40. Tuition free university credit courses.

41. University library privileges.

42. Faculty identification cards.

43. Recognition certificate from the University.

44. Consultant services from the University.

45. Instructional materials from the University.

46. Tickets to university events - athletics, cultural events, etc.

47. Hospitalization services.

48. Cash stipends to the supervising teacher.

49. Seminars, workshops or meetings in your school or school area.

50. Seminars, workshops or meetings on the University campus.

Question 51 through 56 - To what extent does the presence of a student teacher change the supervising teacher's participation in the following activities:

Use the following code for questions 51 through 56:

1. Much more than usual
2. More than usual
3. No change
4. Less than usual
5. Much less than usual

51. Visitation in other classrooms or schools.

52. Committee work in the school with pupils and/or staff.

53. Research.

54. Professional reading and/or writing.

55. Work or meet with staff members of school or department.

56. Assistance to the principal or to other teachers.

* * * * *

Use the following code for questions 57 through 60:

1. Very positively
2. Somewhat positively
3. Neutral
4. Somewhat negatively
5. Very negatively

57. How has the presence of student teachers in your building affected staff morale?

58. Generally, how do parents of your pupils react to having student teachers in the building?

59. Generally, how do the custodial, cafeteria and clerical staff react to having student teachers in the building?

60. Generally, how do the pupils react to having student teachers in the building?

* * * * *

Question 61 through 73 deal with any changes in your own work load because of having student teachers in your building.

61. To what extent has having student teachers in your building affected the average number of hours per week you work?

    1. Added more than six hours per week
    2. Added two to five hours per week
    3. Added one hour or less per week
    4. Made no change
    5. Reduced by one hour or less per week
    6. Reduced by two to five hours per week
    7. Reduced by six or more hours per week

Question 62 through 73 - What has been the cause of any change in your own work load brought about by student teachers?

Use the following code for questions 62 through 73:

    1. Increased your work load
    2. Made no change
    3. Decreased your work load
    4. Does not apply

62. Additional reports regarding student teaching or student teachers.

63. Finding housing and transportation for student teachers.

64. Counseling student teachers.

65. Selection of supervising teachers.

66. Orientation of student teachers.

67. Finding instructional materials.

68. Counseling supervising teachers.

69. Communication with parents about activities related to student teachers.

70. Student teacher's assistance in counseling students.

71. Student teacher's assistance with routine clerical tasks in the school.

72. Time of supervising teachers being made available by the student teachers' teaching of classes.

73. Time of other teachers being made available by student teachers' handling some of their assigned responsibilities.

* * * * * *

74. To what extent has the university coordinator or supervisor of student teaching been available to you and your staff during the student teacher contact?

1. Has always been available
2. Has usually been available
3. Has been available on call when needed
4. Has been generally unavailable
5. Has never been available

75. To what extent do your supervising teachers encourage student teachers to have a variety of experiences outside the assigned classroom?

1. A great deal
2. To some extent
3. To a limited degree
4. Not at all

76. What effect do you feel working with student teachers has had on the teaching performance of your teachers?

1. Has made them much more effective
2. Has made them more effective
3. Has had no effect
4. Has made them less effective
5. Has made them much less effective

77. What is the maximum number of student teachers a supervising teacher should have in one year?

1. One
2. Two
3. Three
4. Four or more

78. Which of the following do you consider to be the most important contribution of supervising teachers to student teachers?

1. Providing cognitive information in the psychology and sociology of teaching and learning.
2. Sharing the classroom and pupils to provide teaching experiences for the student teachers.
3. Providing instruction and experience in lesson planning and methods of teaching.
4. Providing a climate for developing a wholesome professional attitude.
5. Providing informal counseling and advice in one-to-one conference sessions.

79. What is your reaction to assigning student teachers on a very flexible basis to get experience in the total school program rather than with one supervising teacher?

1. Very positive
2. Somewhat positive
3. Neutral
4. Somewhat negative
5. Very negative

80. How representative of the teachers in your building are those who serve as supervising teachers?

1. They are among my most outstanding teachers
2. They are above average for my staff
3. They are about average
4. They are below average for my staff
5. They are among my least effective teachers

Question 81 to 86. Important: Please go to the reverse side of your answer sheet and provide the information requested.

tudent Teacher

STUDENT TEACHING IN MICHIGAN

0609

NAME _____ DATE _____ STUDENT NO _____ SEX M F

LAST FIRST MIDDLE

COURSE NAME _____ COURSE NO. _____

SECTION _____ INSTRUCTOR _____

NAME OF TEST _____ FORM _____

BE SURE YOUR MARKS ARE HEAVY AND BLACK
ERASE COMPLETELY ANY ANSWER CHANGED

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Teacher

STUDENT TEACHING IN MICHIGAN

0609

O-7173

NAME _____ DATE _____ STUDENT NO. _____ SEX M F

LAST FIRST MIDDLE

COURSE NAME _____ COURSE NO. _____

SECTION _____ INSTRUCTOR _____

NAME OF TEST _____ FORM _____

BE SURE YOUR MARKS ARE HEAVY AND BLACK
ERASE COMPLETELY ANY ANSWER CHANGED

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NAME _____ DATE _____ STUDENT NO _____ SEX M F
LAST FIRST MIDDLE

COURSE NAME _____ COURSE NO. _____

SECTION _____ INSTRUCTOR _____

NAME OF TEST _____ FORM _____

BE SURE YOUR MARKS ARE HEAVY AND BLACK
ERASE COMPLETELY ANY ANSWER CHANGED

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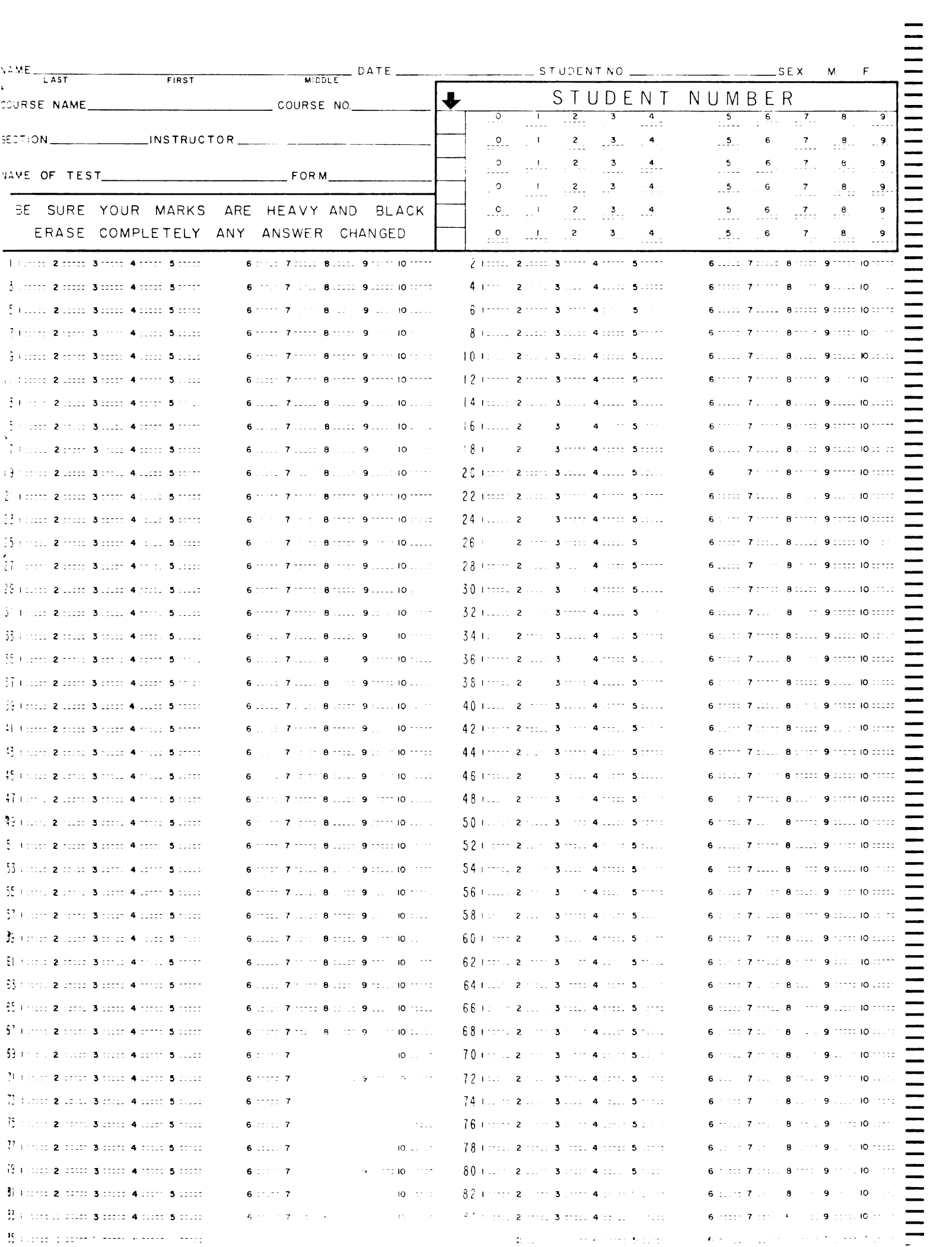

Please check the institutions which have placed student teachers in the building(s) in which you have been principal, and for each of these indicate the number of student teachers currently doing student teaching in your building.

	Have Worked With	Number of Student Teachers Currently Placed		Institution
Example:	X	3		Midwest Teachers College
Public:			01	Central Michigan University
			02	Eastern Michigan University
			03	Ferris State College
			04	Grand Valley State College
			05	Michigan State University
			06	Michigan Technological College
			07	Northern Michigan University
			08	Oakland University
			09	University of Michigan
			10	University of Michigan(Dearborn B
			11	University of Michigan(Flint Bran
			12	Saginaw Valley College
			13	Wayne State University
			14	Western Michigan University
Non-public:			15	Adrian College
			16	Albion College
			17	Alma College
			18	Andrews University
			19	Aquinas College
			20	Calvin College
			21	Hillsdale College
			22	Hope College
			23	Kalamazoo College
			24	Madonna College
			25	Marygrove College
			26	Mercy College
			27	Nazareth College
			28	Olivet College
			29	Siena Heights College
			30	Spring Arbor College
			31	University of Detroit

0951

PRINT AS MUCH OF YOUR NAME AS POSSIBLE IN THE BOXES BELOW. THEN MARK THE CORRESPONDING LETTER BELOW THE BOX OF EACH LETTER YOU PRINTED.

YOUR LAST NAME | YOUR FIRST NAME | MI

STUDENT NO.

SEX | TERM | FORM

MO. | DAY | COURSE

YOUR NAME _____ Last _____ First _____ Middle _____ INSTRUCTOR'S NAME _____

COURSE _____ SECTION _____

USE PENCIL ONLY. ERASE COMPLETELY WHEN NECESSARY.
MAKE YOUR MARKS FIRM AND CLEAR. EXAMPLE: ■

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81	82	83	84

0951

PRINT AS MUCH OF YOUR NAME AS POSSIBLE IN THE BOXES BELOW. THEN MARK THE CORRESPONDING LETTER BELOW THE BOX OF EACH LETTER YOU PRINTED.

YOUR LAST NAME

YOUR FIRST NAME

MI

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USE PENCIL ONLY. ERASE COMPLETELY WHEN NECESSARY.
MAKE YOUR MARKS FIRM AND CLEAR. EXAMPLE:

YOUR NAME

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COURSE SECTION

1	1 2 3 4 5 6 7 8 9 10	2	1 2 3 4 5 6 7 8 9 10	3	1 2 3 4 5 6 7 8 9 10	4	1 2 3 4 5 6 7 8 9 10
5	1 2 3 4 5 6 7 8 9 10	6	1 2 3 4 5 6 7 8 9 10	7	1 2 3 4 5 6 7 8 9 10	8	1 2 3 4 5 6 7 8 9 10
9	1 2 3 4 5 6 7 8 9 10	10	1 2 3 4 5 6 7 8 9 10	11	1 2 3 4 5 6 7 8 9 10	12	1 2 3 4 5 6 7 8 9 10
13	1 2 3 4 5 6 7 8 9 10	14	1 2 3 4 5 6 7 8 9 10	15	1 2 3 4 5 6 7 8 9 10	16	1 2 3 4 5 6 7 8 9 10
17	1 2 3 4 5 6 7 8 9 10	18	1 2 3 4 5 6 7 8 9 10	19	1 2 3 4 5 6 7 8 9 10	20	1 2 3 4 5 6 7 8 9 10
21	1 2 3 4 5 6 7 8 9 10	22	1 2 3 4 5 6 7 8 9 10	23	1 2 3 4 5 6 7 8 9 10	24	1 2 3 4 5 6 7 8 9 10
25	1 2 3 4 5 6 7 8 9 10	26	1 2 3 4 5 6 7 8 9 10	27	1 2 3 4 5 6 7 8 9 10	28	1 2 3 4 5 6 7 8 9 10
29	1 2 3 4 5 6 7 8 9 10	30	1 2 3 4 5 6 7 8 9 10	31	1 2 3 4 5 6 7 8 9 10	32	1 2 3 4 5 6 7 8 9 10
33	1 2 3 4 5 6 7 8 9 10	34	1 2 3 4 5 6 7 8 9 10	35	1 2 3 4 5 6 7 8 9 10	36	1 2 3 4 5 6 7 8 9 10
37	1 2 3 4 5 6 7 8 9 10	38	1 2 3 4 5 6 7 8 9 10	39	1 2 3 4 5 6 7 8 9 10	40	1 2 3 4 5 6 7 8 9 10
41	1 2 3 4 5 6 7 8 9 10	42	1 2 3 4 5 6 7 8 9 10	43	1 2 3 4 5 6 7 8 9 10	44	1 2 3 4 5 6 7 8 9 10
45	1 2 3 4 5 6 7 8 9 10	46	1 2 3 4 5 6 7 8 9 10	47	1 2 3 4 5 6 7 8 9 10	48	1 2 3 4 5 6 7 8 9 10
49	1 2 3 4 5 6 7 8 9 10	50	1 2 3 4 5 6 7 8 9 10	51	1 2 3 4 5 6 7 8 9 10	52	1 2 3 4 5 6 7 8 9 10
53	1 2 3 4 5 6 7 8 9 10	54	1 2 3 4 5 6 7 8 9 10	55	1 2 3 4 5 6 7 8 9 10	56	1 2 3 4 5 6 7 8 9 10
57	1 2 3 4 5 6 7 8 9 10	58	1 2 3 4 5 6 7 8 9 10	59	1 2 3 4 5 6 7 8 9 10	60	1 2 3 4 5 6 7 8 9 10
61	1 2 3 4 5 6 7 8 9 10	62	1 2 3 4 5 6 7 8 9 10	63	1 2 3 4 5 6 7 8 9 10	64	1 2 3 4 5 6 7 8 9 10
65	1 2 3 4 5 6 7 8 9 10	66	1 2 3 4 5 6 7 8 9 10	67	1 2 3 4 5 6 7 8 9 10	68	1 2 3 4 5 6 7 8 9 10
69	1 2 3 4 5 6 7 8 9 10	70	1 2 3 4 5 6 7 8 9 10	71	1 2 3 4 5 6 7 8 9 10	72	1 2 3 4 5 6 7 8 9 10
73	1 2 3 4 5 6 7 8 9 10	74	1 2 3 4 5 6 7 8 9 10	75	1 2 3 4 5 6 7 8 9 10	76	1 2 3 4 5 6 7 8 9 10
77	1 2 3 4 5 6 7 8 9 10	78	1 2 3 4 5 6 7 8 9 10	79	1 2 3 4 5 6 7 8 9 10	80	1 2 3 4 5 6 7 8 9 10
81	1 2 3 4 5 6 7 8 9 10	82	1 2 3 4 5 6 7 8 9 10	83	1 2 3 4 5 6 7 8 9 10	84	1 2 3 4 5 6 7 8 9 10

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Form OS-101

Michigan State University Printing Service

PRINT AS MUCH OF YOUR NAME AS POSSIBLE IN THE SPACES BELOW. THEN MARK THE CORRESPONDING LETTER BELOW THE BOX OF EACH LETTER YOU PRINTED.

YOUR LAST NAME	YOUR FIRST NAME	MI

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YOUR NAME _____ INSTRUCTOR'S NAME _____

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SECTION _____

USE PENCIL ONLY. ERASE COMPLETELY WHEN NECESSARY.
MAKE YOUR MARKS FIRM AND CLEAR. EXAMPLE: ■

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29	30	31	32
33	34	35	36
37	38	39	40
41	42	43	44
45	46	47	48
49	50	51	52
53	54	55	56
57	58	59	60
61	62	63	64
65	66	67	68
69	70	71	72
73	74	75	76
77	78	79	80
81	82	83	84

APPENDIX B

Significant Loadings

TABLE 44

Total Administrators 1969 *

FACTORS

VARIABLES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1														75										
2														67										
3		50															55							
4								67																
5									86															
6									87															
7		76																						
8		80																						
9																								
10		76																						
11		74																						
12								68																
13											42										46			
14										50														
15																								
16												42												
17												60												
18																	69							
19																	70							
20																	77							
21												58												
22											71													
23											73													
24											66													
25										84														
26										80														
27	63																							
28	75																							
29	73																							
30	71																							
31	56																							
32												45												
33																				79				
34																								45
35															44									
36															63									
37															69									
38	61																							
39																								
40			57																					

* Only loadings greater than .39 (absolute) are included and the decimal points have been dropped.

TABLE 44(Cont.)

Total Administrators 1969

FACTORS

VARIABLES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
41			65																					
42			80																					
43			56																					
44													51											
45			55																					
46			75																					
47			66																					
48																					72			
49													80											
50													79											
51					55																			
52					66																			
53					55																			
54					60																			
55					70																			
56					69																			
57						67																		
58						78																		
59						77																		
60						78																		
61			45																					
62			63																					
63																						45	42	
64			71																					
65			59																					
66			72																					
67																						44		
68			73																					
69			40																			53		
70																						74		
71																						72		
72						82																		
73						78																		
74								43										41						
75																		57						
76																73								
77																								
78																			85					
79																					78			
80																		56						

TABLE 45

Central Michigan University Administrators 1969 *

VARIABLES	FACTORS																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1											83													
2																						79		
3	58					48																		
4								80																
5									77															
6									84															
7						86																		
8						87																		
9																								
10						71																		
11						71																		
12								79																
13															83									
14															45									
15																		41						
16																								
17																74								
18	73																							
19	78																							
20	80																							
21					53																			
22										63														
23										74														
24										73														
25																					82			
26																					80			
27																		49						
28				50														42						
29				66																				
30				70																				
31				46																				
32																								
33					72																			
34														69										
35														50										
36																		75						
37																								44
38				45																				
39														72										
40		52																						

* Only loadings greater than .41 (absolute) are included and the decimal points have been dropped.

TABLE 45(Cont.)

Central Michigan University Administrators 1969

FACTORS

VARIABLES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
41		74																								
42		86																								
43		48																								
44		44																								
45		70																								
46		80																								
47		63																								
48																								67		
49																								72		
50																								71		
51																										
52																							42			
53																										48
54																										74
55																							80			
56																							74			
57							70																			
58							81																			
59							84																			
60							72																			
61																		80								
62			68																							
63																								64		
64			73																							
65			62																							
66			52																							
67			59																							
68			78																							
69			76																							
70																										
71																	47									
72																	61									
73																	83									
74																				85						
75												54														
76											71															
77															45											
78												78														
79													63													
80																										

TABLE 46

Central Michigan University Administrators 1973 *

FACTORS

VARIABLES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1																			75					
2													40											
3				48																				
4									88															
5								80																
6								84																
7				77																				
8				79																				
9																		43						
10				68																				
11				64																				
12				59					49															
13											40				45									
14															70									
15							47																	
16														74										
17						45																		
18							74																	
19							71																	
20							69																	
21																								
22											70													
23											74													
24											66													
25													82											
26													79											
27																								59
28																								81
29																								80
30																								50
31						58																		
32						78																		
33																					78			
34	40																				42			
35	57																							
36																								
37																								
38																								46
39	57																							
40																								

* Only loadings greater than .40 (absolute) are included and the decimal points have been dropped.

TABLE 46(Cont.)

Central Michigan University Administrators 1973

VARIABLES	FACTORS																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
41			73																					
42			85																					
43			58																					
44			48									41												
45			54									42												
46			81																					
47			75																					
48												44												
49												76												
50												71												
51					42																			49
52					59																			
53					61																			
54					66																			
55					80																			
56					69																			
57	76																							
58	82																							
59	69																							
60	80																							
61																						54		
62		48																						
63																	71							
64		80																						
65		72																						
66		85																						
67		52															43							
68		87																						
69		71																						
70		50						53																
71		40						61																
72								68																
73								74																
74																								
75																		41						
76	52																							
77																								55
78														84										
79																		72						
80																				79				

TABLE 47

Total Cooperating Teachers 1969 *

FACTORS

VARIABLES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1																						60	
2				52																			
3										40												39	
4						69																	
5						71																	
6						72																	
7	67																						
8									77														
9																					63		
10									39														
11				76																			
12														77									
13				36										69									
14	42																						
15							59																
16							45																
17												87											
18												87											
19	47																						
20							65																
21							67																
22							59																
23							72																
24																74							
25				41												66							
26	38																						
27	46																						
28	55																						
29													57										
30																				64			
31				61																			
32	69																						
33	69																						
34	75																						
35									66														
36									42														
37		55																					
38		64																					
39																		67					
40																		71					

* Only loadings greater than .36 (absolute) are included and the decimal points have been dropped.

TABLE 47(Cont.)

Total Cooperating Teachers 1969

FACTORS

VARIABLES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
41		71																					
42																							
43		71																					
44																			38				
45								73															
46													46										
47															68								
48															63								
49				69																			
50					68																		
51					75																		
52					85																		
53					82																		
54									64														
55																							
56			45																				
57			72																				
58			75																				
59			69																				
60							60																
61											66												
62											69												
63											49							36					
64																		63					
65																							79
66											50												
67			43																				
68											56												
69													40										
70																							
71								76															
72													65										
73																	58						
74																	66						
75	47																46						
76										72													
77										61													
78										57													
79	62																						
80																	52						

TABLE 48

Central Michigan University Cooperating Teachers 1969 *

FACTORS

VARIABLES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
1																		79								
2				43																						
3												56														
4							71																			
5							45					63														
6							72																			
7	46																									
8																				77						
9							44																			
10																				77						
11				60																						
12																	77									
13																	55									
14																										
15						55																				
16						44																				
17													88													
18													86													
19																							46			
20						70																				
21						68																				
22						67																				
23						76																				
24																			72							
25																			72							
26																										
27																							59			
28																							47			
29								69																		
30								63																		
31				66																						
32	73																									
33	72																									
34	80																									
35			58																							
36			69																							
37									57																	
38									66																	
39																								63		
40																								68		

* Only loadings greater than .42 (absolute) are included and the decimal points have been dropped.

TABLE 48(Cont.)

Central Michigan University Cooperating Teachers 1969

FACTORS

VARIABLES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
41									70																	
42																78										
43									66																	
44		46																								
45											73															
46								57																		
47														48												
48														73												
49				75																						
50					64																					
51					74																					
52					82																					
53					81																					
54																				73						
55															68											
56																					68					
57									69																	
58									65																	
59									76																	
60						59																				
61			62																							
62			76																							
63			57																							
64																					42					
65																								62		
66																										
67															42											
68			50																							
69																								43		
70																										
71											72															
72																						77				
73																									53	
74																									75	
75																									59	
76												61														
77												57														
78																										
79	53																									
80																										

TABLE 49

Central Michigan University Cooperating Teachers 1973*

VARIABLES	FACTORS																								
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
1									55																
2																				41					
3														82											
4								75																	
5								66																	
6								74																	
7	61																								
8																						46			
9																						73			
10																									
11																				72					
12						67																			
13						69																			
14													64												
15							65																		
16							60																		
17											88														
18											85														
19	50																								
20							68																		
21							62																		
22							60																		
23							74																		
24																			72						
25																			63						
26	40																								
27	40																								
28	49																								
29												69													
30																					65				
31																				70					
32	75																								
33	71																								
34	77																								
35																	73								
36																	62								
37		45																							
38		70																							
39																75									
40																76									

* Only loadings greater than.38 (absolute) are included and the decimal points have been dropped.

TABLE 49(Cont.)

Central Michigan University Cooperating Teachers 1973

VARIABLES	FACTORS																								
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
41		67																							
42																									
43		45		54																					
44				67																					
45				60																		49			
46				65											75										
47				65																					
48																									
49																				65					
50						66																			
51						78																			
52						85																			
53						84																			
54													49												
55																								72	
56																								65	
57		66																							
58		76																							
59		77																							
60								55																	
61									48																
62										48															
63										70															
64										64															
65									74																
66																					40				
67																									
68																									
69										59															
70										39			39												44
71																						74			
72																									
73																									
74																									43
75		43																							52
76																		59							39
77																		76							
78																		61							
79		65																							46
80																									

TABLE 50

Total Students 1969 *

FACTORS

VARIABLES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
1									64																
2														33											
3																	48					39			
4									61																
5																									32
6									78																
7																	65								
8			76																						
9																						68			
10			47														39								
11		73																							
12		38												66											
13														75											
14																				42					
15																				64					
16																				46					
17									86																
18									87																
19																									64
20																				57					
21					64																				
22					69																				
23																				66					
24					54																				
25		64			33																				
26																			61						
27																			72						
28																			68						
29																74									
30																32									41
31		73																							
32								70																	
33								72																	
34								63																	
35			80																						
36			70																						
37							47																		
38							71																		
39							40																		
40							33																		

* Only loadings greater than .32 (absolute) are included and the decimal points have been dropped.

TABLE 50(Cont.)

Total Students 1969

FACTORS

VARIABLES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
41							76																		
42																									
43							71																		
44							40																		
45						78																			
46																67									
47		34																						57	
48																								50	
49		72																							
50	72																								
51	78																								
52	85																								
53	83																								
54			37																				44		
55											79														
56											71														
57													69												
58													78												
59													74												
60																				60					
61				76																					
62				79																					
63				49																			39		
64																		62							
65																								40	
66																		66							
67																		43							
68				57																					
69																							64		
70																									
71					82																				
72																48									
73																					42				
74																					63				
75														67											
76												65													
77												72													
78														37											
79														68											
80														58											

TABLE 51

Central Michigan University Students 1969 *

FACTORS

VARIABLES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
1																								53			
2																								48			
3	51																										
4																		78									
5											40																
6																								77			
7																	70										
8	82																										
9																34											
10	80																										
11	62				44																						
12																54											
13																67											
14																							81				
15																											73
16																											55
17										85																	
18										83																	
19																						64					
20																											57
21													41														
22																											35
23		37																									38
24																				48							
25					57																						
26		53																									
27		72																									
28		67																									
29															71												
30													69														
31					77																						
32						67																					
33						63																					
34						63																					
35	81																										
36	74																										
37																											
38																			67								
39												74															
40												68															

* Only loadings greater than .34 (absolute) are included and the decimal points have been dropped.

TABLE 51(Cont.)

Central Michigan University Students 1969

FACTORS

VARIABLES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
41																			65								
42																					68						
43																			55								
44																			58								
45							79																				
46															39						36						
47					49																						
48													35														
49					63																						
50			75																								
51			77																								
52			84																								
53			85																								
54																	70										
55								71																			
56								62																			
57	34																									52	
58																										71	
59																										70	
60																									48		
61			71																								
62			78																								
63			67																								
64														44													
65																			70								
66														69													
67														56													
68			49																								
69															36												
70									41																		
71							79																				
72															71												
73																										72	
74										66																	
75									43																		
76									72																		
77										58																	
78										60																	
79										37																	
80																						37					

TABLE 52

Central Michigan University Students 1973 *

VARIABLES	FACTORS																								
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
1							73																			
2																		39								
3							69																			
4																									78	
5																		69								
6							47																			
7															75											
8																						69				
9																										76
10															75											
11		55													41											
12																		45								
13																		44								
14																				48						
15																										
16																										
17									80																	
18									83																	
19																										
20					59																					
21					60																					
22					62																					
23					61																					
24					43																					
25		61																								
26					57																					
27					63																					
28					67																					
29																74										
30																										
31		79																								
32								72																		
33								75																		
34								63																		
35														78												
36														76												
37																						42				
38	73																									
39																			71							
40																			74							

* Only loadings greater than .38 (absolute) are included and the decimal points have been dropped.

TABLE 52(Cont.)

Central Michigan University Students 1973

FACTORS

VARIABLES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
41	76																									
42																							58			
43	62																									
44																										
45						72																				
46																63										
47		55																								
48																				54						
49		72																								
50										68																
51										78																
52										82																
53										79																
54																				49						
55											77															
56											77															
57			67																							
58			75																							
59			75																							
60			51																							
61				71																						
62				69																						
63				57																						
64																				58						
65																	42									
66																				73						
67																				55						
68				60																						
69												57														
70																						54				
71						76																				
72																55										
73																		83								
74																	62									
75																								56		
76													51													
77													81													
78																										
79																								67		
80																								52		

APPENDIX C

Chi-Square Analysis

SUMMARY OF CHI SQUARE ANALYSIS

OF COOPERATING TEACHER DATA

Question #	Chi Square Value	Degrees of Freedom	Level of Significance
7	25.99	4	.001
15	2.62	4	N.S.
16	8.75	4	N.S.
17	4.00	3	N.S.
18	8.30	3	.05
19	8.65	3	.05
20	5.77	4	N.S.
21	8.21	4	N.S.
22	8.99	4	N.S.
23	20.21	4	.001
24	12.12	5	.05
25	1.22	5	N.S.
27	21.30	4	.001
28	19.47	4	.001
32	18.76	2	.001
33	15.48	2	.001
34	8.47	3	.05
35	16.63	5	.01
36	19.55	5	.005
37	7.00	2	.05
38	1.98	2	N.S.
39	9.75	2	.01
40	9.91	2	.01
41	15.45	2	.001
43	3.75	2	N.S.
45	25.89	3	.001
50	6.42	3	N.S.
51	4.59	3	N.S.
52	2.19	3	N.S.
53	3.21	3	N.S.
57	1.31	4	N.S.
58	5.80	4	N.S.
59	4.85	4	N.S.
60	1.54	4	N.S.
62	1.31	2	N.S.
63	20.58	2	.001
68	6.83	2	.05
71	23.84	5	.001
73	4.26	4	N.S.
74	5.04	4	N.S.
75	5.33	4	N.S.
79	1.29	2	N.S.

SUMMARY OF CHI SQUARE ANALYSIS

OF COOPERATING ADMINISTRATOR DATA

Question #	Chi Square Value	Degrees of Freedom	Level of Significance
13	8.41	4	N.S.
14	9.17	2	.02
18	15.09	4	.005
19	7.75	4	N.S.
20	12.62	4	.02
22	5.23	4	N.S.
23	22.95	3	.001
24	12.67	3	.01
25	27.41	5	.001
26	12.46	5	.05
28	3.24	2	N.S.
29	5.15	4	N.S.
30	.98	3	N.S.
34	4.58	3	N.S.
35	8.94	3	.05
38	4.41	3	N.S.
39	6.36	3	N.S.
41	6.37	7	N.S.
42	8.90	7	N.S.
43	3.93	6	N.S.
44	6.82	7	N.S.
45	7.03	6	N.S.
46	97.99	6	.001
47	6.14	6	N.S.
48	7.62	8	N.S.
49	11.11	6	N.S.
50	23.76	7	.005
52	1.45	2	N.S.
53	2.05	2	N.S.
54	.79	2	N.S.
55	10.90	2	.01
56	9.30	2	.01
57	10.16	4	.05
58	9.09	4	N.S.
59	1.56	3	N.S.
60	1.79	3	N.S.
62	1.08	3	N.S.
64	6.30	3	N.S.
65	1.21	3	N.S.
66	2.28	3	N.S.
67	1.28	3	N.S.
68	.98	3	N.S.
69	3.27	3	N.S.
71	2.17	3	N.S.
72	8.31	3	.05
73	9.96	3	.02

SUMMARY OF CHI SQUARE ANALYSIS

OF STUDENT TEACHER DATA

Question #	Chi Square Value	Degrees of Freedom	Level of Significance
17	5.29	4	N.S.
18	.89	4	N.S.
29	102.82	2	.001
32	52.01	3	.001
33	30.31	3	.001
34	16.30	3	.001
38	12.31	3	.01
39	25.70	3	.001
40	15.62	3	.005
41	31.48	3	.001
43	23.46	3	.001
45	60.66	2	.001
46	76.29	2	.001
50	35.99	3	.001
51	34.03	3	.001
52	29.77	3	.001
53	17.39	3	.001
55	18.67	9	.05
56	68.96	9	.001
57	12.79	5	.025
58	11.75	5	.05
59	13.02	5	.025
61	4.72	2	N.S.
62	3.98	2	N.S.
63	9.38	2	.01
64	11.74	3	.01
66	25.40	3	.001
67	11.28	3	.01
68	6.16	3	N.S.
71	58.71	5	.001
72	83.67	4	.001
76	59.45	8	.001
77	23.45	4	.001

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