

THE EFFECT OF THE ATTITUDES OF PROSPECTIVE
TEACHERS ON THE UTILIZATION OF PROFESSIONAL
LABORATORY EXPERIENCES FOR THE DEVELOPMENT
OF INSIGHT ABOUT AND A COMMITMENT TO, TEACHING

Thesis for the Degree of Ed. D.
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Karl Robert Kramer

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This is to certify that the

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AN ABSTRACT OF A THESIS

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ABSTRACT

THE EFFECT OF THE ATTITUDES OF PROSPECTIVE TEACHERS ON THE UTILIZATION OF PROFESSIONAL LABORATORY EXPERIENCES FOR THE DEVELOPMENT OF INSIGHT ABOUT, AND A COMMITMENT TO, TEACHING

by Karl Robert Kramer

This study deals with the effect of students' attitudes on their ability to utilize experience to gain insight about children and the teaching-learning process and to develop a stronger commitment to teaching. It investigates the possible differences in insight and commitment which might be due to differences between positive and negative attitudes toward children and teaching. The study also concerns the relative values of differing lengths of time in nonschool professional laboratory experiences in which the college students work with children.

An attitude instrument, the Minnesota Teacher Attitude Inventory, was administered to sixty-eight students enrolled in their first education course at Eastern Michigan University. All students in the study were enrolled in "Educational Psychology" or "Human Growth and Development." Each student was assigned a nonclassroom contact with a child or children for a specific length of time.

At the end of the semester, each student was interviewed using an open-end interview schedule to record his responses to questions dealing with insight, commitment, or both. Because of the ordinal nature of the data, nonparametric measures were used to analyze the data. Extremely high interrater correlation coefficients were found for both variables. The correlation between the two variables was found to be very low, suggesting that, at least for this sample, insight and commitment were independent of one another.

Evidence resulting from analysis of the data suggests that the measurement of attitude obtained from the Minnesota Teacher Attitude Inventory is unrelated to the measurements of insight and commitment as ranked in the interview schedule.

The analysis of the data showed no significant differences in attitudes between students scoring high in both insight and commitment on the interview schedule and students scoring low in these two variables.

The analysis of the data relating to the length of professional laboratory experiences indicated no significant difference in insight and commitment between students in extended and short-term experiences and between those having concentrated and short-term experiences.

This study produced no evidence that there is any relationship between attitudes, as measured by the MTAI, and insight and/or commitment as measured by the interview schedule. Insight and commitment as measured by the interview schedule are independent variables.

There is no evidence that extended experiences or concentrated experiences are more beneficial for insight and commitment than are short-term experiences.

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CHAPTER I

INTRODUCTION

Background of the Study

In the past sixty years there has been a gradual growth in the variety and number of professional laboratory experiences offered to future teachers as part of their professional preparation. For the most part this increase has been based on the growing recognition of the importance of relating theory and practice in a professional program of teacher education. Another factor not so generally recognized but referred to in several studies (McGeoch; Lindsay, Mauth, and Grothberg; Low)¹ is the positive change in attitude of future teachers toward teaching and toward children as a result of direct work experience with children.

Dewey (1904) recommended:

. . . we may propose to use practice work as an instrument in making real and vital theoretical instruction; the knowledge of

¹See the Bibliography.

subject matter and of principles of education. This is the laboratory point of view. . . . Practice work thus considered is administrated primarily with reference to the intellectual reactions it incites, giving the student a better hold on the educational significance of the subject matter he is acquiring and of the science, philosophy and history of education.¹

In 1945 a committee was appointed by the American Association of Teachers Colleges to study and make recommendations regarding the use of professional laboratory experiences in teacher education. Their report defines professional laboratory experiences as “. . . all those contacts with children, youth and adults (through observation, participation and teaching), which made a direct contribution to an understanding of individuals and their guidance in the teaching-learning process.”²

Camilla Low (1941) pointed out the significance of a wide variety of community and school experiences in helping students in education to understand both the children they will be serving and the agencies through which these children can be helped.³

¹John Dewey, “The Relation of Theory to Practice in Education,” The Relation of Theory to Practice in the Education of Teachers, Third Yearbook of the National Society for Scientific Study of Education, ed. Charles McMurray, Part I (Chicago: University of Chicago Press, 1904), pp. 9-10.

²John Flowers et al., School and Community Laboratory Experience in Teacher Education (The American Association of Teachers Colleges, 1948), p. 7.

³Camilla Low, Child in the Community (Madison: University of Wisconsin Press, 1941).

McGeoch and Leavitt (1953) reported on an experiment in which students in their sophomore year took a course in human growth and development where almost half their class time was given over to working with children in a school setting with such experiences as record-keeping, individual help, playground activities, and supervision of small groups. The purpose of this kind of structure was to help students to learn to observe students intelligently, to feel at home with individuals and groups of various ages, and to gain some skill in working with the classroom teacher.¹

Darrow (1959) reported a study of the effects of short-term laboratory experiences on the attitudes of future teachers at Indiana State Teachers College. While the results showed no significant changes in attitude as measured by the Minnesota Teacher Attitude Inventory, those participating did feel it to be a valuable experience, and there was significant growth as judged by teachers who had these students in educational psychology at the same time.²

¹Dorothy H. McGeoch, "Public Schools Provide Direct Experiences," Educational Leadership, XI (November, 1953), 89-94.

²Harriet Driskell Darrow, "The Effects of a Participation Program on the Attitudes of Prospective Teachers at Indiana State Teachers' College," The Teachers College Journal, XXXI (November, 1959), 19-21.

At present, student teaching comprises the largest portion of professional laboratory experience in teacher education programs around the country. Most colleges involved in teacher preparation offer student teaching as part of the professional sequence. For growing numbers of institutions of higher education from Wheelock College in Boston to San Francisco State College, this experience has been judged insufficient to meet the students' needs for field experience.

Purpose and Significance of the Study

Thelen (1964) stated:

There is little opportunity for the prospective teacher to test theory in practical situations. There is too little opportunity for him to work intensively with pupils and such opportunity as there is, comes too late in the program.¹

In many of the studies referred to in the Bibliography (see Brown, Cox, Darrow, Frantz) an excellent case has been made for the value of relating theory and practice. The work of Low, McGeoch, Wilhelms, Doll, and others² documents the importance of

¹Thelen, a personal interview at the Annual Conference of the Michigan Association for Supervision and Curriculum Development, East Lansing, Michigan, November, 1964.

²See the Bibliography.

working experiences with children throughout the sequence of professional education courses.

This study assumes that professional laboratory experiences are valuable to students entering teacher education to meet the two purposes of having more experience with children and of relating theory and practice. The main focus of this study, however, is on another purpose heretofore generally ignored: to aid the student in developing insight and commitment toward teaching. Students vary greatly in their reactions to any particular experience. Some seem to profit more from any given practice than do others. Certain individuals drop out of teacher education. Some change their subject field or grade-level goals. Others indicate increased assurance that their previously determined focus was wise. Still others seem to have been little affected by the experience.

If one of the purposes of professional laboratory experience is to help students to gain insight and growing commitment toward teaching, means must be developed for identifying students who could make effective use of such practice for these purposes. Efforts must be made for determining which field experiences are most appropriate for these same purposes.

Some basic questions need to be answered: As a result of an early field experience, which students feel better equipped to

make more intelligent commitments about teaching? What relationship is there between students' attitudes when they enter teacher education and their ability to make effective use of laboratory experience for increased insight and commitment? Which field experiences are most helpful to students in gaining insight and developing commitment for teaching?

Assumptions Underlying the Hypotheses

This study assumes the value of professional laboratory experience extending throughout the period of professional courses. It also assumes the value of laboratory experiences for relating theory and practice.

It assumes that students will vary greatly in the quality of insight gained from any particular contact with children and youth; that there will be a difference among students as to the degree of commitment growing out of any specific field experience; and that the differences among students will have relation to the kinds of attitudes which these students bring to their laboratory experiences.

It assumes that different kinds of field experiences vary in their effectiveness at helping students to gain either insight or commitment.

It assumes that insight or commitment may be exhibited by an increased enthusiasm for a previously chosen goal, by a change of goal within education, or by a change in vocational direction.

It assumes that little or no change in insight or commitment can be indicated by a lack of change in either the intensity for a previously chosen goal or inquisitiveness for any alternative goals.

Hypotheses

Hypothesis 1. Attitudes of students entering teacher education concerning teaching affect their ability to utilize field experiences for improving personal insight and an increased commitment toward teaching.

Hypothesis 2. Students with highly positive attitudes will develop higher insight and greater commitment toward teaching than will students with very negative attitudes.

Hypothesis 3. Pre-student teaching experiences which offer students opportunity to work with children or youth for extended periods of time provide better bases for improved insight and increased commitment than do short-term experiences, assuming approximately the same number of hours in both experiences.

Hypothesis 4. Pre-student teaching experiences which offer students opportunity for concentrated work with children or youth provide better bases for improved insight and increased commitment than do short-term experiences.

Definitions and Explanation of Terms

Professional laboratory experiences: “. . . all those pre-service contacts with children, youth and adults (through observation, participation and teaching), which made a direct contribution to an understanding of individuals and their guidance in the teaching-learning process.”

Pre-student teaching: All those pre-service contacts, prior to student teaching, with children, youth, and adults (through observation, participation, and teaching) which made a direct contribution to an understanding of individuals and their guidance in the teaching-learning process.

Field experience: A synonym for the phrase “pre-student teaching.”

Attitude: Attitude as measured by the MTAI which predicts how well a teacher will get along with children in interpersonal relationships and, indirectly, how well satisfied he will be with teaching as a vocation.

Extended field (pre-student teaching) experiences: Twelve to sixteen weeks, at least two hours per week.

Short-term field experiences: Four to eight weeks, approximately four hours per week.

Concentrated field experiences: One or more weeks, at least forty hours per week.

Insight: Knowledge of children and the teaching-learning process and the ability to apply the knowledge in a real situation working with a child or children.

Commitment: A persistent or sustained enthusiasm or drive for teaching.

Summary

Chapter I described the history of a gradual growth in recognition by teacher-educators of the importance of pre-student teaching as an integral part of teacher education. Student teaching supplied too little "practice" and was offered too late in the sequence of education courses.

For the purposes of this study, it was assumed that research had proven the value of relating theory and practice throughout the professional education sequence. One of the purposes of the present investigation is to discover whether it is possible to aid students in developing insight about and commitment toward teaching. Are there certain students who can gain insight from pre-student teaching experiences? Are there students who cannot? Are there certain

pre-student teaching experiences which are more helpful to students in relation to this purpose?

A major question relates to the relationship of the attitudes which students have concerning teaching and children prior to their entry into professional education. Is there a significant difference in students' responses to field experiences relating to highly positive or highly negative attitudes toward teaching and children?

This introductory chapter also included the definition of such terms as pre-student teaching, attitudes, extended and short-term experiences, insight, and commitment.

Chapter II will review the professional literature in the areas of pre-student teaching and attitude measurement.

Chapter III will describe the design of the study. Chapter IV will present the data.

The summary, Chapter V, will analyze the results, state conclusions drawn from the data, and make recommendations growing out of the aforementioned conclusions.

CHAPTER II

RELATED RESEARCH

An Overview

The literature dealing with professional laboratory experiences is both voluminous and confusing. During the early development of programs of professional laboratory experience, the drive of colleges and universities has been to upgrade the quantity and quality of student teaching, still focusing on the last year of training for this experience. Despite major improvements in this aspect of professional laboratory experience, the most significant result, from the standpoint of this study, has been the growing recognition by many teacher education institutions that direct experience must start earlier in the student's preservice education.

This writer finds it curious that for about forty years educators seemed to take little cognizance of one phrase in John Dewey's 1904 statement on practice work:

. . . we may propose to use practice work as an instrument in making real and vital theoretical instruction; the knowledge of

subject matter and of principles of education. This is the laboratory point of view. . . . Practice work thus considered is administrated primarily with reference to the intellectual reactions it incites, giving the student a better hold on the educational significance of the subject matter he is acquiring [*italics mine*] and of the science, philosophy and history of education.¹

With many of the educational theory courses being offered a year or more before student teaching, innumerable opportunities for relating theory and practice were lost.

Professional laboratory experiences prior to student teaching have, for the most part, been one of three types: classroom observation, classroom participation, and community participation. This chapter will attempt to cover the significant growth of these programs in the past twenty-five years.

Since the present study is concerned with the effect of attitudes on students' ability to utilize experience offered them, the latter part of the chapter will deal with research on the study and measurement of attitudes.

The research concerning professional laboratory experiences has been extensive and somewhat repetitive. In order to limit this chapter to research which adds to the reader's understanding and which relates to this specific study, two criteria have been applied.

¹Dewey, loc. cit.

If a position has been taken without significant change by a number of researchers, the first reference will be used. If findings have been amplified and the focus redirected by later research, the most valuable report, in the writer's opinion, will be quoted. In many cases this will be the most recent study. In either situation, the names of other researchers and their studies will be listed in the Bibliography.

In the first paragraph of this chapter it was stated that the literature is not only voluminous, but also confusing. The confusion results from the fact that one cannot follow a logical historical progression which would also show a gradual and consistent improvement in programs.

One of the earliest programs, at the University of Wisconsin, started in 1936,¹ was almost as broadly conceived as the most recent efforts for giving our students experience at working with children in the community. Concurrently, a course relating theory and practice through observations of children was being instituted at Wheelock College² in Boston, while at Greeley, Colorado,³ a

¹Low, loc. cit.

²Wheelock College, Boston, Massachusetts.

³Colorado State College of Education, Greeley, Colorado.

prerequisite for student teaching was a course involving observation and participation in the classroom.

Pre-Student Teaching

Early studies

In the early 1940's the American Council on Education supplied the impetus for several studies to discover forward-looking practices in teacher education and to make recommendations to the profession as to some logical directions for future action. Prominent among the findings and recommendations were reports on direct experiences prior to student teaching.

In 1943, Blackwell¹ reported on college efforts to assist pre-service teachers toward a better understanding of communities. He surveyed programs on fourteen campuses. While most of the colleges visited correlated the community involvement of students with student teaching, there were several which started direct experience in connection with courses in human growth and in school and society in the sophomore and junior years.

¹Gordon W. Blackwell, Toward Community Understanding (Washington: American Council on Education, 1943).

Camilla Low¹ has already been referred to above. She was one of the first to develop an early field experience program of this type at the University of Wisconsin. Every available community agency in the Madison area was utilized for laboratory experience for sophomores as an integral part of course work in human growth and development.

Armstrong and others² reported on a study of universities, teachers colleges, and colleges of liberal arts in their attempts to improve the in-service and preservice preparation of teachers. They described a number of pre-student teaching programs in which laboratory schools and public schools cooperated with the college staffs in affording juniors opportunities to work with children in a school setting. Most of the field experiences were correlated with college classroom studies.

Most of the surveys both early and recent decry the fact that most direct experiences have been related only to courses in education. One of the notable exceptions was at the Milwaukee State Teachers College as follows:

¹Low, loc. cit.

²Earl W. Armstrong et al., The College and Teacher Education (Washington: American Council on Education, 1944), pp. 174-79.

“The staff responsible for the social studies block were the first to branch out toward firsthand experiences and community contacts with which to enrich classroom procedure.”¹

Armstrong described another pattern for early direct experience developed by the School of Education at the University of Texas.²

While the original experiment included professional laboratory experience covering the junior and senior years, the final program encompassed the sophomore year as well. Worth reporting at this time is a summary of the students' recommendations at the end of their experimental program. Their comments are in the form of advice for another group of students carrying on similar programs.

Become as familiar as possible with ways of talking to and working with boys and girls. Continue informal, cooperative procedures. Use every opportunity to participate in all activities of the course. Join in the discussions, take all the field trips, cooperate in every way; you will get out of the class exactly what you put into it. Give much time to reading. Observe and participate in classrooms as much as possible. Do not worry

¹Milwaukee State Teachers College, Final Report to the Commission on Teacher Education (American Council on Education, 1943), pp. 82-83.

²University of Texas, Final Report to the Commission on Teacher Education (American Council on Education, 1943), pp. 139-45.

because the course is "different." Preserve the individuality of the course. Make friends with the faculty; have faculty conferences as often as possible. Learn to know the people you work with: faculty, class members, public school teachers, and pupils.¹

The final report (1946) of the Commission on Teacher Education of the American Council on Education brings into perspective some particular values of early direct experience for teachers-in-training. The particular context of the quotation which follows was the preparation of art teachers, but the implications are for teacher education generally.

Prospective teachers were enabled to begin observations of children relatively early in their preparatory careers, and opportunities were provided whereby they might work with young people responsibly and under guidance in varied school and other situations. They were also led to study communities at first hand and to take part in their affairs. Such direct experiences were designed to serve a number of purposes: to extend the bases upon which students and their advisors could check the wisdom of tentative vocational choices; to enable students to comprehend and judge better for themselves the theoretical formulations that were being presented in class; to sensitize them to the uniqueness of individual human beings and communities and help guard them against using mechanically generalizations regarding either; and to develop in them feelings of ease, security and competence in real situations.²

¹Ibid., pp. 36-37.

²American Council on Education, Committee on Teacher Education, Improvement on Teacher Education (American Council on Education, 1946), p. 283.

One further reference has been drawn from the commission's 1944 report because it points up the danger of not relating theory and practice.

By specializing in thinking some men have made great advances in understanding, but they have always run the occupational risk of losing contact with reality. Moreover, the results of their speculations when systematized and taught to other persons lacking in related practical experience have not infrequently had dangerous consequences. The mistaken idea that theory and practice are unrelated has been encouraged; so has the notion that the universe, including its human aspects is a mechanical entity only part of which may be abstracted and treated as if it were without organic relationship to the whole.¹

Increased focus on professional laboratory experience

By the middle 1940's it had become evident to leaders in teacher education that professional laboratory experience was an essential ingredient in the preparation of teachers. At this point in time the Committee on Standards and Surveys of the American Association of Teachers Colleges appointed a subcommittee to make a study of student teaching in the professional education of teachers. The main charge to the subcommittee was to make recommendations for the revision of Standard VI, "The Training School and Student Teaching."² Representing the Association for Student

¹Armstrong, op. cit., p. 311.

²John G. Flowers et al. Recommended Standards Governing Professional Laboratory Experiences and Student Teaching and Evaluative Criteria. AACTE, 1949, p. 38.

Teaching in this study was Allen D. Patterson. John Flowers, chairman, and Florence B. Stratemeyer represented the parent committee.

While there had been studies of professional laboratory experiences in the past, as part of investigations on teacher education, this committee and its charge constituted a major redirection of focus for teacher preparation. Student teaching was now envisaged as a culminating laboratory experience rather than the experience.

Certain paragraphs of Standard VI as revised in 1952 are stated here because of their particular significance to this study.

A. The Place of Professional Laboratory Experiences in the College Curriculum

The nature of a student's preceding experiences in a given area rather than the age of the learner or his position in the educational ladder, is the criterion for determining the amount and place of direct experience in the college curriculum. Professional laboratory experience, therefore, should be an integral part of the work of each year of college. This aspect of the standard is implemented most fully;

1. When laboratory experiences, prior to student teaching, are integrated with other parts of the college program. The student derives more from his direct experiences prior to student teaching when they grow out of and are brought back to his work in college courses than when they comprise a separate and independent series of guided experiences.
2. When there is flexibility in planning for professional laboratory experience as work progresses rather than scheduling laboratory experience for a considerable period in advance. This is necessary if provision is to be made

for the needs of individual students and for student participation in the planning of experience.¹

B. Nature of Professional Laboratory Experience

If the student is to build an action-picture of the role of the teacher in public education there must be opportunity to experience the work of the teacher both within and without the classroom. This includes a study of the work of the school as a whole, of pupil and community backgrounds as a basis for improving the educational programs of the responsibilities of the teacher and the school in sharing in and improving community activities. The professional program should be designed to afford opportunity for responsible participation in the major areas of the teacher's work.²

C. Assignment and Length of Laboratory Experience

Where the student should engage in the various types of Professional Laboratory Experience and how long he should continue with a given experience and how long he should remain in each situation are conditioned by the needs of the student, the degree to which the experience can contribute to those needs, and the student's rate of growth. Choice of laboratory situation and length of time spent there will vary with individuals. Each experience should be long enough to help the student achieve the purposes for which he entered upon it.³

Each of the principles stated above has particular significance for today's programs and is as applicable in 1966 as it was in 1952. A student's previous experience must be considered in determining the kind and amount of laboratory contacts throughout his undergraduate program. The insights gained by the student in each experience and the rapidity with which he learns should guide

¹Ibid., pp. 322-23.

²Ibid., p. 325.

³Ibid., pp. 326-27.

the advisor and the student in choosing further contacts. The broad nature of the present-day teacher's role should also help determine the particular experiences which will fill in gaps in the student's background and preparation.

Following the A.A.T.C. study which resulted in the revision of Standard VI, Margaret Lindsey, who was involved in the development of this report, prepared a summary of findings which was reported in the first yearbook of the American Association of Colleges for Teacher Education,¹ the successor to the A.A.T.C. Naturally, her findings were drawn, at least in part, from the earlier study already reported. Certain fundamental concepts bear mention here:

1. Direct experience facilitates learning.
2. The need for direct experience applies at all levels of maturity.
3. The need for direct experience to develop problems, to give meaning to ideas, and to develop functional understanding that leads beyond verbalization to ability to implement ideas in action applies equally to academic and to professional courses.

These fundamental concepts suggest that initial contacts with new areas of learning call for participation rather than observation only.²

The reason for emphasis on this last point is that through her contacts with many teacher education programs she discovered

¹Margaret Lindsey, "Major Findings and Recommendations in the Study of Professional Laboratory Experiences," First Yearbook (American Association of Colleges for Teacher Education, 1948), p. 10.

²Ibid., p. 211.

that observation of children was the most utilized experience prior to student teaching, even though it seemed to have less value than participation experiences. Utilizing observation almost exclusively severely limited the ability of the students to gain maximum value from the experience.

In the area of evaluation, Dr. Lindsey was concerned that little use was made of cumulative records of laboratory experiences, if indeed they are kept at all. Further, the students' own records of observation and participation are not included or are given little attention.¹

In 1956, A.A.C.T.E. published a report growing out of their three-year institutional self-study program of colleges and universities involved in the preparation of teachers. The association sent teams to each member institution for the primary purpose of assisting in evaluation of present programs and in planning for future improvement. Most of the results reported in Teacher Education for a Free People² were a replication of the association's earlier work reported in their first yearbook.

¹Ibid., pp. 206-7.

²Donald P. Cottrell (ed.), Teacher Education for a Free People (American Association of Colleges for Teacher Education, 1956), p. 415.

In the area of professional laboratory experiences, there was reported a significant increase in the quantity and range of direct experiences prior to student teaching. Sharpe endorsed the guiding principles for professional laboratory experience and stated that a teacher education program involving classroom theory and direct work with children provides a complete experience combining purposing, planning, study of what others have learned, acting, and evaluating.¹ He suggests that a higher quality professional laboratory experience must meet the following criteria: the experience must be challenging and satisfying; it must provide for involvement, for guidance, and for intellectualization.²

Recent trends in professional laboratory experiences

Since 1950 there have been some radical developments in the utilization of professional laboratory experiences prior to student teaching. Most noticeable is the vast increase in the numbers of colleges and universities involving their students in such activities as an integral part of undergraduate professional education. The

¹Ibid. Chapter Six, by Professor Donald M. Sharpe, director of secondary professional laboratory experiences, Indiana State Teachers College, Terre Haute, Indiana, pp. 184-85.

²Ibid., pp. 192-97.

literature is full of reports on the "September experience," school camping, relating theory and practice through classroom experiences related to college courses, and community involvement of undergraduates.

While the September field experiences have been part of the professional preparation of students at Ohio State University for many years, they have been incorporated into programs of many colleges and universities.¹ Dorothy McGeoch describes its use in her Direct Experiences in Teacher Education.² For some years, Michigan State University has been recommending that education majors work in schools in their home community in the weeks prior to the fall semester. Articles in the periodic journals indicate that other teacher education institutions in various parts of the country are experimenting with this plan for direct experience.

The significance of school camping for pre-student teaching has been reported in several journals and in at least one dissertation. School camping, or outdoor education, is part of the regular

¹L. O. Andrews, "School Exploratory Experiences for Prospective Teachers," Educational Research Bulletin No. 29, September 15, 1950, pp. 147-57.

²Dorothy McGeoch, Direct Experience in Teacher Education (New York: Bureau of Publications, Teachers College, Columbia University, 1953).

educational experience offered to later elementary and junior high students in many school districts. The classes with their teachers spend a regular five-day school week at a state conservation facility or private camp. The usual focus is biological and/or geological study. A second emphasis is generally learning to live together. Many of the school districts contact nearby colleges or universities for undergraduate students to bolster the camp staff. The college students act as counselors responsible for general supervision of a group of elementary or junior high students. They take the children on hikes, supervise cabin activities, and sleep with the younger students. Hammerman believes that this can be one of the most significant experiences available to the future teacher.¹ Heppel has identified changes in college students' insight about children and about methods of teaching science as a result of such direct experience.²

¹Donald R. Hammerman, "First-Rate Teachers Need First-Hand Experience," Journal of Teacher Education, XI (September, 1960), 408-11.

²Ruth Heppel, "Determining Changes a College Student Undergoes in Selected Categories as a Result of the School Camping Experience" (unpublished Doctoral dissertation, Wayne State University, 1964).

Classroom contact with children related to college courses comes close to being the universal experience in pre-student teaching across the nation.

An excellent description of one typical program can be found in a doctoral dissertation by Stoller, which not only offers details of the present Wayne State University structure for professional laboratory experiences, but gives an excellent historical background as well.¹ Dr. Stoller does a careful evaluation of the present Wayne State University program. He then develops a proposal based on the fact that future teachers need more time and opportunity to assimilate and synthesize certain operational and functional experiences needed for competent teaching.²

The use of community agencies for pre-student teaching rather than or in addition to school contacts which has been discussed earlier in this study has expanded to include a large number of universities and colleges throughout the country.

¹Louis H. Stoller, "A Projected New Plan for Laboratory Experience in Teacher Education in the Wayne State University-Detroit Public School Complex" (unpublished Doctoral dissertation, Wayne State University, 1963), chap. iii. See also Appendix D, pp. 6-8.

²Ibid., chap. iv, pp. 164-65.

McGeoch describes the ways in which three institutions utilized such community organizations as the Y.M.C.A., Y.W.C.A., Boy Scouts, Girl Scouts, nursery schools, churches, and community centers.¹ The most complete breakdown on the kinds of activities in which students are involved can be found in The Child and the Community.²

In the early stages of pre-student teaching the reports were of programs in individual colleges. During the forties and early fifties, information on various programs was consolidated and made available in a few volumes. In the last decade another significant step was taken. Colleges and universities joined together for cooperative research toward better programs. Lindsey, Mauth, and Grotberg have reported an interinstitutional venture of research in the professional education of teachers.³

The bases for this first major attempt at cooperation among several colleges and universities were several. Action research by

¹McGeoch, Direct Experience in Teacher Education, op. cit., pp. 53-55, 92-96.

²Low, loc. cit.

³Margaret Lindsey, Leslie Mauth, and Elaine Grotberg, Improving Laboratory Experiences in Teacher Education (New York: Bureau of Publications, Teachers College, Columbia University, 1959).

individuals in teacher education had proven its worth but had only dealt with parts of the problem, limited by what one individual could accomplish. Cooperation among individuals in the same institution broadened the research base, put two minds on the same problem which broadened the understanding of the nature and scope of the problem and made it possible to test a series of hypotheses under differing conditions. In addition, it provided both morale and technical support to each of the researchers.

“Since the concerns of professionals on the several campuses are also for the improvement of teacher education, it seemed logical to broaden the base even further to discover if inter-institutional cooperation could have the kind of impact on the problems of professional laboratory experiences generally that had been indicated within the staffs of the separate colleges and within the classrooms of individual teachers.”¹

The values to be gained from such a program of cooperative action research were identified by the representatives of six institutions having differing programs of teacher education: “new insights on programs, increased understandings of ways of working, additional resources, and increased contribution to teacher education.”²

¹Ibid., pp. 31-33.

²Ibid., pp. 52-54.

After three conferences over a period of two years involving the original six institutions, problems crystallized and programs developed in a number of ways. Two colleges chose to continue their studies on direct experiences separately, having gained all the assistance they could expect from the cooperative venture. Two others put their emphasis on predicting teaching success and also indicated their desire to work independently in completing their investigations.

The complete study relates to the extensive cooperation between Ball State Teachers College in Indiana and Northern Illinois University.

The heart of the shared experience was the development of instruments to measure more effectively students' knowledge, attitudes, behavior related to professional laboratory experience, and to provide other instruments which could assist the student to identify, report, and evaluate pertinent aspects of his experience. More significant than the particular tests developed were the processes by which the persons involved arrived at agreements and came to mutually acceptable programs. The authors describe the necessary ingredients for such a cooperative research project in the following:

A crucial phase in any research endeavor involves transition from talking to doing. Because of the complexities of communication, the problem is even more critical when inter-institutional research is attempted. Specific agreements among institutions on what is to be done and methodology to be employed

require extended deliberation and establishment of working relationships conducive to mutual confidence and cooperation. These achievements must necessarily be preceded by agreement on a problem that has been relatively well defined and accepted as personally significant by institutions and team members involved. There must also be a rather firm conviction in the minds of individuals that the preliminary discussion stage has passed and that further delay in proceeding to an action phase should cease. . . .¹

It is important to note that throughout the study care was taken to allow each institution to carry out those aspects of the program which were suited to the particular structure of teacher education in that school and to the interests of the members of that institution's team.²

Many interesting outcomes of the cooperative research were noted by the writers, a few of which are pertinent to this study.

Prior to these investigations, programs preparing elementary teachers utilized classroom contacts for field experiences while secondary programs emphasized community experiences. The research indicated that both community and school experiences offered significant bases for growth in understanding of human development.³

Another recommendation was for a regularly scheduled time and opportunity for field experience with sufficient college classroom

¹Ibid., p. 77.

²Ibid., chaps. iv-x.

³Ibid., pp. 225-26.

time given to discussion, evaluation, and planning of future experiences.¹

It is interesting that the researchers were not able to identify one kind of field experience as being more valuable than another. Teachers' enthusiasm about and utilization of a particular experience in the classroom seemed to be the important factor affecting students' acceptance of the contacts. Also the investigators were not able to weigh the worth of a variety of experiences against one extended experience. Students seemed to accept either approach.²

Attitude Studies and Instruments

In reviewing the research on attitudes, this writer was only concerned with two specific dimensions of the topic. Of first concern was to discover whether there had been previous studies on the effect of attitudes on people's ability to utilize experience. Most of the research, however, related to how experience affects attitudes with no identification of any attitude characteristics which were changed slightly or not at all. Reference will be made later to research having some limited relationships with the focus of the present study.

¹Ibid., pp. 216-19.

²Ibid., p. 227.

The other present major concern relates to the kinds of attitude instruments available for use and their relative validity as measuring devices for our present study of future teachers. Most of the inventories investigated either were personality instruments or had not been sufficiently validated or standardized to warrant their use at this time. Only the Minnesota Teacher Attitude Inventory warranted further investigation.

Several studies have attempted to discover the relationships of attitudes to success in student teaching or in teaching. Michaelis,¹ using various combinations of personality instruments with one attitude inventory, found significant differences between empirical and validation groups. The personality instruments used were subtests of the Minnesota Multiphasic Personality Inventory (MMPI), Heston Personal Adjustment Inventory (HPAI), Minnesota Personality Scale (MPS), and the Minnesota T-S-E Inventory (TSE). The attitude inventory was the Minnesota Teacher Attitude Inventory (MTAI). Overall accuracy of prediction was too low, and error of prediction was too high, for the various subgroups, to warrant the use of any one of the batteries in a selection program. The M scale of the MPS was found to

¹J. U. Michaelis, "The Prediction of Success in Student Teaching from Personality and Attitude Inventories," Education, University of California Publication, XI, No. 6, 1954, pp. 415-81.

discriminate between students with high and low ratings with a higher level of confidence than did any of the other measures employed in this study; students with high ratings in teaching tended to have high scores. The MTAI was found to be the next most useful inventory in discriminating between students with high and low ratings; high scores were associated with high ratings in student teaching.¹

An investigation by Sandgren and Schmidt showed no significant relationship between high, middle, and low scores on an attitude inventory (MTAI) and the critic teacher's rating of teaching effectiveness. They concluded, ". . . because there was no apparent relation between MTAI scores and critic teachers' ratings, the MTAI cannot be used to predict probable success in teaching if the ratings made by public school critic teachers on the Student Teaching Report are used as a criterion of success."²

In an earlier study, Fuller found no significant relationship between attitude inventory scores and supervisors' ratings. He reported, "Therefore, while the MTAI may serve a highly useful

¹Ibid., pp. 473-74.

²D. L. Sandgren and L. G. Schmidt, "Does Practice Teaching Change Attitudes toward Teaching?" Journal of Educational Research, XLIX (1956), 679.

purpose in selecting students from the general population for training in early childhood education, or even for refinement of selection policies within subdivisions of the College of Education, it does not identify the ablest or weakest student teachers within the experimental group.”¹

Differing results were obtained by Stein and Hardy in their study of students from the University and Normal School in Manitoba. The investigators deduced from their findings that student teacher attitudes are measured by the MTAI with a “fair degree of both validity and reliability.”²

As was stated earlier, most educators concerned with attitude measurement have been interested in discovering the degree to which our practices in teacher education have changed the attitudes of students. This investigator believes that the case for the changing of attitudes is amply attested to by sufficient research. The work of Lindsey, Mauth, and Grotberg, and others reported earlier in this chapter, has been supported by the studies of Sandgren and

¹E. M. Fuller, “The Use of Teacher-Pupil Attitudes, Self-rating, and Measures of General Ability in the Pre-service Selection of Nursery-Kindergarten-Primary Teacher,” Journal of Educational Research, XLIV (1951), 682.

²H. L. Stein and J. Hardy, “A Validation Study of the MTAI in Manitoba,” Journal of Educational Research, L (1957), 682.

Schmidt,¹ Kearney and Rocchio,² and Anderson,³ who have reported significant changes in attitudes both in student teaching and teaching. More pertinent to the present study are those investigations which attempt to measure the stability and persistence of attitudes evidenced by students prior to their involvement in professional education. Standlee and Popham reported that MTAI scores in the 1956-1957 school year, for 880 students who graduated from Indiana University in 1959, related significantly with the evaluations of administrators for whom these teachers worked in their first teaching assignments.⁴ Hoyt and Cook suggested a year later that "there is evidence which indicates that the junior score (before education courses), is a better predictor of the ultimate attitude of the

¹Sandgren and Schmidt, loc. cit., p. 679.

²N. C. Kearney and P. D. Rocchio, "The Effect of Teacher Education on the Teacher's Attitude," Journal of Educational Research, XLIX (1956), 704-6.

³Sara Elizabeth Anderson, "The Change in Attitudes of Prospective Teachers toward Education and Teaching in Secondary Schools" (unpublished Doctoral dissertation, Indiana University, 1963).

⁴Lloyd S. Standlee and W. James Popham, "The MTAI as a Predictor of Overall Teacher Effectiveness," Journal of Educational Research, VIII (1959), 319-20.

experienced teacher than is the senior score.”¹ A further support for the persistence of early attitudes is reported in a recent doctoral dissertation by Wolaven.²

The review of the literature concerning attitude measures has obviously been heavily weighted toward the Minnesota Teacher Attitude Inventory. While this instrument is far from perfect as a predictor of teacher success, it has supplied many data for further study. One reservation has been raised concerning the retest use of the MTAI because of its fakability. Research by Rabinovitz indicates the possibility of biased results on this basis.

Although the MTAI has been recommended for teacher selection purposes . . . , the evidence presented here would argue against this use of the test. . . . The subject with some knowledge of the viewpoint endorsed by the selection agency could, in most cases, reflect this viewpoint in responding to the MTAI.³

Stein and Hardy argued from much the same data that “this does not mean that the test is susceptible to faking, it means rather that

¹Cyril J. Hoyt and Walter W. Cook, “Stability of MTAI Scores during Two to Seven Years Teaching,” Journal of Teacher Education, IV (1960), 489.

²Kathryn Evans Wolaven, “A Longitudinal Study of Teachers’ Attitudes and Personality as Related to Teacher Education and Teaching Experience” (unpublished Doctoral dissertation, Purdue University, 1964).

³W. Rabinovitz, “The Fakability of the Minnesota Teacher Attitude Inventory,” Education Psychological Measurement, XIV (1954), 663.

the test is adequate in revealing a biased or prejudiced attitude toward children from either extreme position.”¹

The comments of Hoyt and Cook above seem to suggest that, in view of the confusion concerning the use of the MTAI when the students have developed some insights as to what the testers are seeking, the MTAI has most value as a pretest before students enter their professional education sequence.

Summary

This chapter attempted to show the development of professional laboratory experience prior to student teaching from its earliest beginnings to the present and to report the important studies of student attitude which relate to the utilization of field experience.

The early studies of pre-student teaching showed almost as much breadth in program as present-day experiences provide: community contacts, observation, and classroom and/or school participation, but with few colleges or universities participating.

In the late forties and fifties, professional association compiled rather complete data on the various programs throughout the country and revised Standard VI in keeping with the more general

¹Stein and Hardy, loc. cit., p. 329.

professional acceptance of early professional laboratory experience as an integral part of teacher education.

Recently there has been a greater sharing, both of information and cooperative planning, with greater emphasis on action research and with the extensive participation of large numbers of teacher education institutions.

While there have been many studies on the effect of experience on the attitudes of future teachers, there is a dearth of material dealing with the persistence or stability of attitudes which students bring with them to their educational programs. What reports there are indicate that early attitudes tend to persist and are a better predictor of future attitudes than those measured at the end of the student's college career.

Attitude inventories leave much to be desired as predictive instruments. The most valid standardized measure seems to be the Minnesota Teacher Attitude Inventory if its use is limited to a pre-test prior to the student's entry into professional education courses.

CHAPTER III

DESIGN OF THE STUDY

Introduction

This chapter will include a description of the design of the study, facts about the population and sample, information about the instruments used, and information about the personnel involved in conducting the interviews and in ranking the responses on insight and commitment.

The setting for this study is the pre-student teaching program at Eastern Michigan University, a description of which will be found in Appendix A.

Sample

The population of this study is composed of all students planning to teach,¹ entering the professional education sequence of

¹As reported orally to the teachers of human growth and development and educational psychology.

courses at Eastern Michigan University during the spring semester in 1965.

The following criteria were used to select the sample:

1. Students must have been currently enrolled in their first education course--either "Human Growth and Development" or "Educational Psychology."
2. They must not have had a pre-student teaching experience during their time at the university prior to their entry into the professional education sequence.
3. They must have been either second-semester sophomores or first-semester juniors.
4. They must have taken the Minnesota Teacher Attitude Inventory by the second week of their first semester in either of the two courses mentioned in item 1 above, or in the two-week period prior to the course.¹

Out of 443 students who were enrolled in their first education course, approximately 100 students met the other criteria listed

¹The limited period for taking the MTAI was deemed necessary by the investigator to identify attitudes of the students just prior to their entry into the professional education sequence of courses and before their attitudes were "colored" by the philosophy or views of their first teacher in education. Rabinovitz, loc. cit.

in the selection of the sample. Of these, 68 students completed the interview which comprised the second half of the study and, therefore, became the sample used. Included were 21 males whose ages ranged from nineteen to twenty-four, and 47 females with an age range from eighteen to fifty years. Both groups had a median age of twenty years.

Figure 1 shows the distribution of scores on the MTAI by percentiles for the entire sample as well as separately for males and females. The males had a median percentile score of 12, while the median score for females was 20. The shapes of the distributions in Figure 1 across the range of scores, however, is very similar for males and females.¹

Table 1 shows the distribution of males and females both by their curriculum area as categorized by the Minnesota Teacher Attitude Inventory² and by the kind of pre-student teaching assignment

¹As a means of roughly assessing the representativeness of the sample in the present study, a frequency polygon was constructed based on 312 students to whom the MTAI was administered at the beginning of their first semester in professional education during the 1964-1965 school year. This graph is reproduced in Appendix B and shows an almost identical distribution of cases across the range of MTAI scores as is found in the sample used in this study.

²W. W. Cook, C. H. Leeds, and R. Callis, The Minnesota Teacher Attitude Inventory (New York: Psychological Corporation, 1951), pp. 6-7.

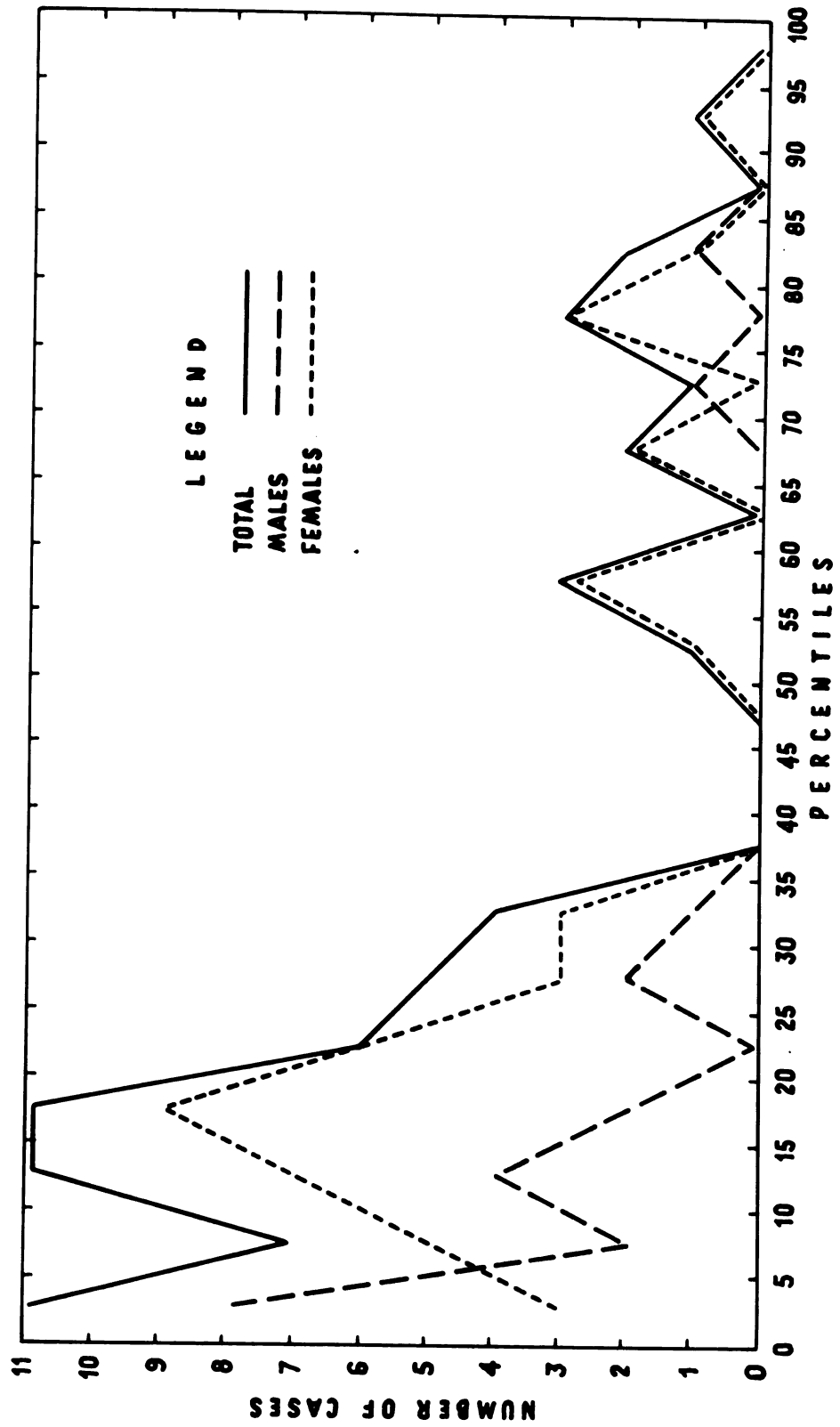


Fig. 1.--MTAI scores of the total sample by percentiles.

TABLE 1.--Numbers of students, by curriculum, pre-student teaching assignment, and sex.

Curriculum	Type of Pre-Student Teaching Experience						Total		
	Extended		Short Term		Concen- trated		M	F	To- tal
	M	F	M	F	M	F			
Elementary . . .	1	17	3	7	0	5	4	29	33
Secondary aca- demic	9	9	3	2	1	4	13	15	28
Secondary non- academic . .	2	1	2	0	0	2	4	3	7
Total	12	27	8	9	1	11	21	47	68

they received as described in the definitions in Chapter I of this study. Because of the limitations imposed by the criteria in selecting students for the sample, no attempt was made to equalize the N's in the various cells.

Figure 2 shows the distribution of scores by percentiles for all males as well as separately for male students in extended, short-term, and concentrated pre-student teaching experiences.

Figure 3 describes the same data as Figure 2 for the females in the sample.

Figure 4 shows the distribution of scores by percentiles for all males as well as separately for elementary, for secondary academic, and for secondary nonacademic males.

Figure 5 offers the same information for all females in the study in the same divisions as Figure 4.¹

Instruments

The Minnesota Teacher Attitude Inventory was developed at the University of Minnesota, and the manual published in 1951 states:

¹While the curriculum information in Table 1 and Figures 4 and 5 does not relate directly to the hypotheses of this study, it was decided that the analysis of these data might provide information pertinent to this investigation.

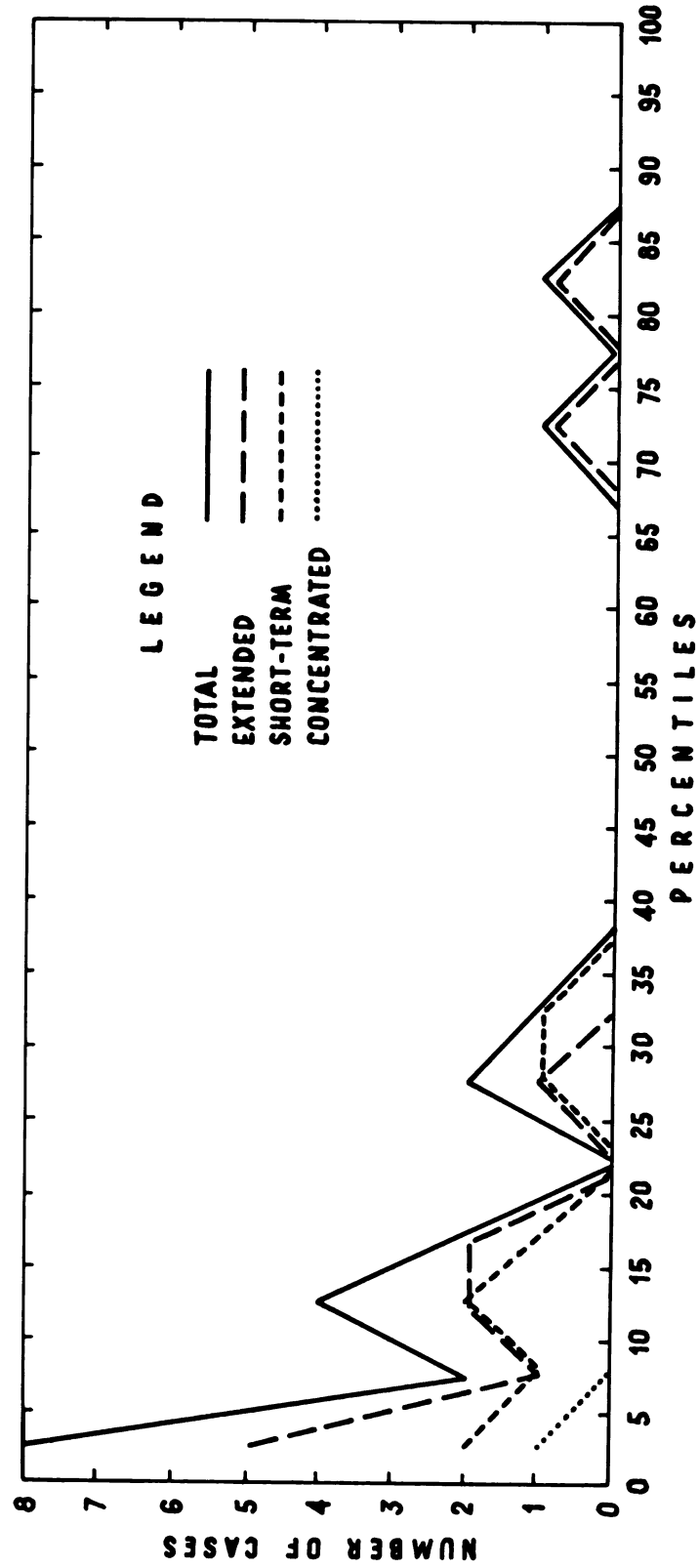


Fig. 2.--MTAI scores of males by pre-student teaching assignment.

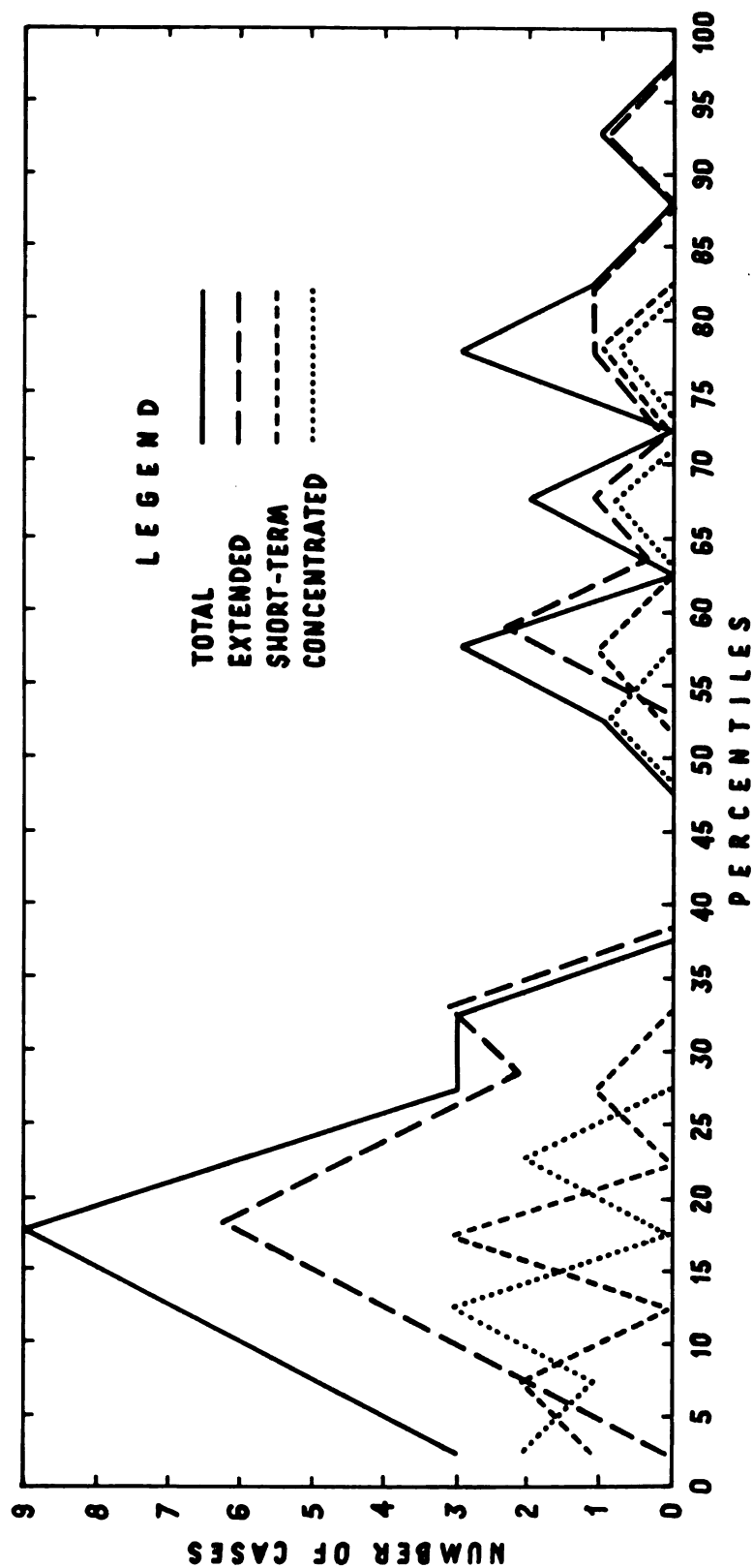


Fig. 3.--MTAI scores of females by pre-student teaching assignment.

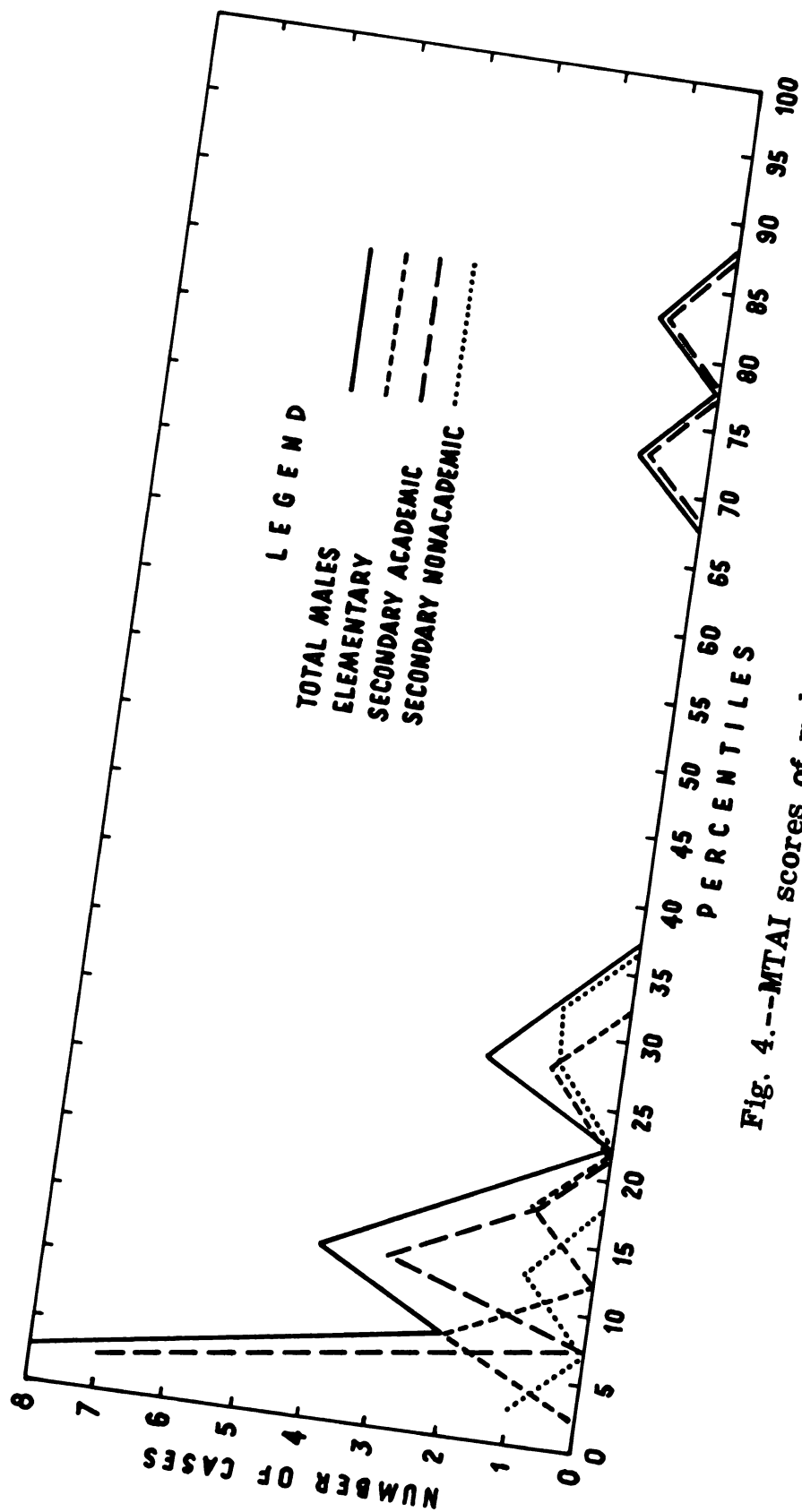


Fig. 4.--MTAI scores of males by curricula.

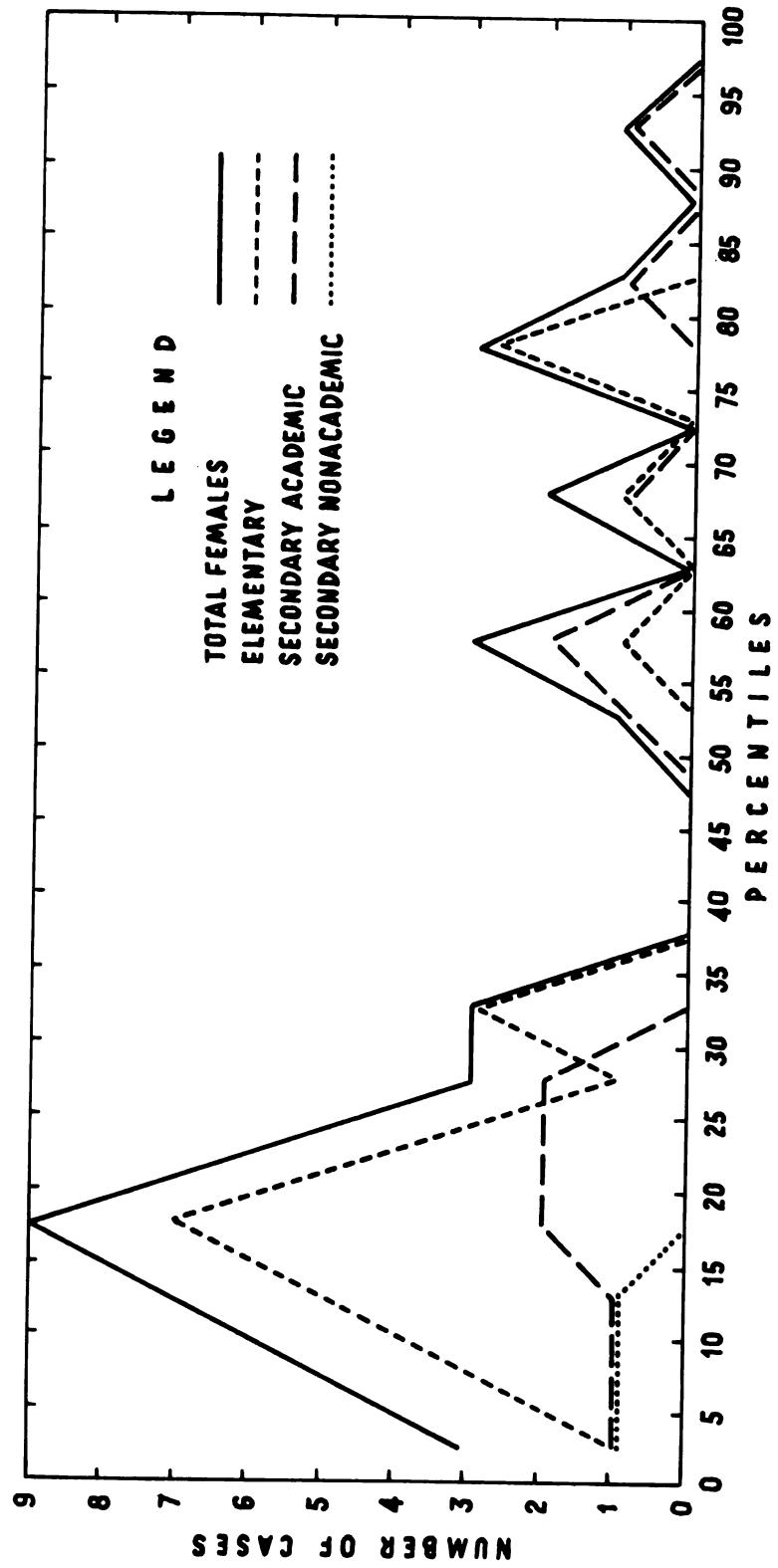


Fig. 5.--MTAI scores of females by curricula.

Investigations carried on by the authors over the past ten years indicate that the attitudes of teachers toward children and school work can be measured with high reliability, and that they are significantly correlated with the teacher-pupil relations found in the teachers' classrooms. The Minnesota Teacher Attitude Inventory has emerged from those researches. It is designed to measure those attitudes of a teacher which predict how well he will get along with children in inter-personal relationships, and indirectly how well satisfied he will be with teaching as a vocation.¹

Studies of the MTAI suggest that this 150-item test is a valid instrument for determining the attitudes of prospective teachers toward children and teaching, as long as it is used prior to the student's entry into professional education courses.² Once the student is exposed to the philosophy and programs of his education instructors, there is increased danger of faking, destroying the validity of the student's responses.³ (For further discussion of the MTAI, see Chapter II.)

Since there is question as to the validity of the MTAI as a posttest and since other standardized teacher attitude tests measure variables somewhat different than the MTAI, an open-end questionnaire was developed to give students the opportunity to indicate the

¹Cook, Leeds, and Callis, op. cit., p. 3.

²Hoyt and Cook, loc. cit.

³Rabinovitz, loc. cit.

quality of their insight and the degree of their commitment. This questionnaire appears on the following page (Exhibit 1). Questions 13 and 14 are aimed at measuring insight about children and teaching. Questions 1 through 4 and 16 are concerned with commitment. The remaining questions seem to evoke responses involving both insight and commitment.

Interviewers and Raters

Five interviewers were employed to conduct interviews of the students in the sample. They included two graduate assistants, one male and one female, as well as three male assistant professors, all of whom were in their first year of teaching at Eastern Michigan University. All interviewers had had some experience in various types of interviewing as part of their responsibilities in previous positions. All five interviewers, however, were given the following instructions for conducting the interview:

Indicate that you are interested in knowing why the student is considering teaching as a profession. Tell the student that the information gained from this study could help in the development of an improved, more flexible program of teacher education. Express your appreciation for the student's cooperation. Guarantee anonymity of the interview. Encourage freeness, lack of inhibition in the interview. Emphasize the importance of keeping the conversation on the topic, but stress freedom for the interviewee to ask for clarification, etc. Indicate that you will be recording responses and may have to work slowly.

EXHIBIT 1**QUESTIONS FOR THE INTERVIEW**

1. How long ago did you decide to become a teacher?
2. What factors affected this decision?
3. Since your decision to teach was made, have there been any factors or events which reinforced this decision?
4. Have there been any factors or events which have made you unsure that you made the right decision?
5. Briefly what did you expect to learn from a course in (a) Human Growth and Development, (b) Educational Psychology? (Find out what course they took.)
6. What did you learn from the course?
7. What did you hope to learn that you did not learn?
8. What did you expect to learn from the pre-student teaching experience?
9. What did you learn from the pre-student teaching experience?
 - 1.
 - 2.
 - 3.
10. What did you hope to learn that you did not learn?
 - 1.
 - 2.
 - 3.
11. As a result of this pre-student teaching experience, what would you do differently in another experience?
12. How could the pre-student teaching experience be improved?
13. In rank order, what do you consider the most important characteristics of a teacher?
 - 1.
 - 2.
 - 3.
14. What is the most serious classroom issue facing the teacher?
15. What differences do you perceive now in the role of the teacher as compared to what you perceived when you first decided to teach?
16. How have these differences affected your decision to teach?

The interviewers were requested to probe further if an interviewee's response was not clear or did not seem to answer the question completely.

Each interviewer was given the opportunity to run four pilot interviews to get experience in the process and to check any questions that did not seem to evoke adequate responses or which did not seem clear to the interviewees. To control bias, none of the interviewers were given any information concerning the nature of the study.

There were two raters for the questionnaire. The first rater was a supervising teacher in the University Laboratory School. The second rater was an assistant professor and coordinator for student teaching for Eastern Michigan University. Both educators were interested in the study and indicated their willingness to assist in the rating procedure.

The rating procedure was to rank the responses of the sixty-eight students separately for insight and for commitment with number one being the least adequate response and number sixty-eight being the best response.

As was stated above in the description of the questionnaire, when ranking was for insight only those questions relating to insight or to both insight and commitment would be utilized. When ranking

was on commitment only those questions relating to commitment or to both commitment and insight would be used. The final ranking was made on the basis of the overall impression gained from the evaluation of the individual questions.

For ease of rating, each rater was instructed first to do a rough ranking into four groups: high-high, high, low, low-low. Then they were to rank-order within each group. Finally they would combine the four groups into one group of sixty-eight. After a final check to assure that all sixty-eight were ranked from lowest to highest the rankings were recorded.

After the ranking was done on commitment the questionnaires were reshuffled to control bias prior to ranking for insight.

After both raters completed their rankings, interrater reliabilities for both variables were computed using the Spearman rank-order correlation (R_s). The interrater reliability coefficient for commitment was found to be .90, while the coefficient for insight was .88. It was concluded, therefore, that this questionnaire could be reliably ranked for these two variables.

One question that might be raised would be: Are the two variables--insight and commitment--as measured by this questionnaire independent of one another, or are they two measures of the same thing?

It was assumed that the two variables would be unrelated to one another because a high quality of insight does not necessarily result in a high degree of commitment. For example, the student who shows keen insight may make any of the following decisions: (1) He may become more firmly committed to his choice of goals in the teaching profession; (2) he may change his commitment to a new goal within the teaching profession (e.g., changing from secondary to elementary); or (3) he may decide that teaching is not a suitable goal for him to pursue.

It was possible to answer the question above by correlating insight and commitment. The student scores¹ on insight were rank-ordered from low to high. The commitment scores were similarly ranked. These two sets of ranks were then correlated. The correlation (R_g) between insight and commitment was found to be .02, suggesting that, at least for this sample, the two variables under study were independent of one another.²

¹It will be recalled that each student received two ranks for each variable, one from each rater. Because of the higher inter-rater reliabilities, the student's ranks on each variable were summed and became the student's variable score.

²A scattergram was made of this correlation to rule out the existence of a nonlinear relationship.

Procedures for Treating Data

All analyses of the data will be treated with nonparametric tests because of the ordinal nature of the data.

It is one of the purposes of this study to discover whether there are any relationships between scores students received on the MTAI and the variables of insight and commitment. Since we do not have scores on these two variables, but rather an ordering from lowest to highest, any comparisons must be done by rank order. Therefore, students' scores on the MTAI will be placed in ascending rank order.

On the previous page the procedure was described for summing the student's ranks on each variable and rank-ordering the scores from low to high. While this was for the purpose of determining the independence of variables, it also becomes the ranking for correlating attitude and commitment, and attitude and insight. The Spearman rank-order correlation (R_s)¹ will be used to compile the relationships.

The skewed scores of the sample (as compared with the norms) on the MTAI necessitate a change in testing the second

¹S. Siegel, Non-parametric Statistics (New York: McGraw-Hill Company, 1956), pp. 202-13.

hypothesis. It was expected to compare students who were in the seventy-sixth to ninety-ninth percentiles on the MTAI with students who were in the first to twenty-fifth percentiles to discover if there were a significant difference in insight and commitment between the two groups. Since more than 67 percent of the sample were in the lowest quartile, it was decided to compare those students who ranked in the top third on both commitment and insight with those students in the bottom third on the same two variables, and through a median test¹ to discover if there was any significant difference in their rankings on attitude.

Hypotheses 3 and 4 deal with the relative merits of extended (twelve to sixteen weeks) pre-student teaching experiences and short-term (four to eight weeks) experiences and concentrated (one week, forty hours) experiences and short-term experiences.

Hypothesis 3 deals with the relative merits of extended (twelve to sixteen weeks, two hours per week) pre-student teaching experiences and short-term (four to eight weeks, two hours per week) experiences. Hypothesis 4 draws comparisons between the concentrated (one week, forty hours) pre-student teaching and short-term experiences. In each case it is planned to utilize the

¹Ibid., pp. 111-16.

Mann-Whitney U-test¹ for comparing two groups when dealing with ordinal data.

As mentioned earlier in this chapter, data have been collected beyond those demanded by the questions raised by the hypotheses. It is intended to test correlations between students in differing curricula (elementary, secondary academic, and secondary non-academic) and between males and females. The Mann-Whitney U-test will be used in each of these comparisons.

Summary

In Chapter III the design and procedures for the study were established. Data were supplied on the population and the sample. The instruments, the Minnesota Teacher Attitude Inventory and the interview questionnaire, were discussed and a sample of the questionnaire was included.

Personnel utilized in conducting the interviews and in rating the questionnaires for insight and commitment were described, as were the instructions for their responsibilities.

¹Ibid., pp. 116-27.

Interrater reliabilities for both variables were computed. The interrater reliability coefficient for commitment was .90, and for insight it was .88.

A test was also made on the independence of variables--insight and commitment. The correlation between them was found to be .02, suggesting independence.

Procedures for treating the data emphasized that all analyses of the data will be treated with nonparametric tests.

The Spearman rank-order correlation will be used to test correlations between attitude and the variables of commitment and insight. A median test is planned to check the students with high insight and commitment against the lows. The Mann-Whitney U-test will be utilized to compare pre-student teaching experiences.

CHAPTER IV

RESULTS OF THE STUDY

Chapter IV deals with the statistical methods for treating the data and the results of the testing procedures. Reference has already been made in the previous chapter to the particular tests to be used for the various analyses.

Data relating to the four hypotheses will be tested. In addition, if the correlations on the basic data warrant, further tests will be made on data collected relating to sex and curricular differences.

Since the basic concern of this study has to do with the relationships between attitude as measured by the MTAI and the variables of insight and commitment, it would seem advisable, at this point, to repeat the definitions of these variables. Insight is indicated by a knowledge of children and the teaching-learning process and the ability to apply the knowledge in a real situation working with a child or children. Commitment is identified as a persistent or sustained enthusiasm or drive for teaching.

Presentation of Data

Test of Hypotheses 1 and 2: relationship of MTAI and the variables of commitment and insight as measured by the open-end questionnaire

It was established in Chapter III that the two variables measured by the open-end questionnaire, commitment and insight, were found to be independent. As a result, each of these variables was treated separately in determining its relationship to the MTAI scores.

Correlation between MTAI and commitment, as well as between MTAI and insight, were determined by the Spearman rank-order correlation coefficient. This measure of correlation was selected because it was felt that the present data could not be considered to meet the assumptions underlying the use of the Pearson product-moment correlation coefficient.¹ The data were, rather, treated as ordinal measurement.

The correlation between MTAI and commitment was found to be +.12, which is not significantly different from zero. The relationship between the MTAI and insight was +.03, which is also not significant.

¹Siegel, op. cit., p. 28.

The interpretation of these correlations, then, does not support the suppositions made in the first two theoretical hypotheses. The evidence here suggests the measurements obtained by the MTAI are unrelated to the measurements of commitment and insight as measured by the open-end questionnaire.

Hypothesis 2, as stated in Chapter I, deals with the extreme cases in the sample; that is, that students who are rated as high on both commitment and insight are more likely to have higher MTAI scores than those who rate low on both questionnaire variables. "High" and "low" commitment and insight scores are defined as the upper and lower thirds of the distribution, respectively.

Nine students were found to rank in the upper third on both commitment and insight, while eight students ranked in the lower third on both. The MTAI scores for these seventeen students were ranked from high to low and a median test¹ was applied to the data. Table 2 shows the breakdown of the observed cases. The obtained value of chi-square was .04, which is not statistically significant. This finding is interpreted as indicating that there were no differences in MTAI scores between students who were rated high on both commitment and insight and those who were rated low on both.

¹Ibid., pp. 111-16.

TABLE 2.--Data test of Hypothesis 2.

Grouped Rankings	High on Commitment and Insight	Low on Commitment and Insight	Total
Above the combined median	3	4	7
At or below the com- bined median	6	4	10
Total	9	8	17

Test of Hypotheses 3 and 4: relationship
of pre-student teaching experiences and
the variables of commitment and insight
as measured by the open-end
questionnaire

It was hypothesized that students who selected extended pre-student teaching assignments would gain greater insight and stronger commitment than those who experienced a short-term assignment. Again, because of the independence of the variable, insight and commitment were analyzed separately.

The Mann-Whitney U-test,¹ a nonparametric test analogous to the parametric "t"-test, was selected as the best statistical measure by which to compare two groups when dealing with ordinal data. The U-test is a test of differences in central tendency or, more specifically, differences in medians. With sufficiently large samples ($N > 20$), this statistic approximates the normal distribution and is therefore reported as a z score.

When comparing the thirty-nine students with extended experiences and the seventeen students with short-term experiences, the variables of commitment on the obtained z was found to be 1.80 which has a probability of occurrence of .07 in a two-tail test and does not achieve the desired level of significance. It should be noted, however, that the direction of the difference which was observed, while not statistically significant, was in favor of the students with short-range experiences, contrary to the hypothesis.

The differences between the two groups on the variable of insight was much smaller. The observed value of z was .16, which has a probability of approximately .87, clearly nonsignificant.

¹Ibid., pp. 116-27.

These data then suggest that having an extended experience in pre-student teaching experiences would result in greater insight and stronger commitment than short-term experience does.

Another hypothesized comparison was that concentrated pre-student teaching experiences would result in greater insight and stronger commitment than short-term experiences do.

The U-test was again used to make the statistical tests, and again the results were nonsignificant for both variables, commitment and insight. Seventeen short-term students were compared with twelve students with concentrated experiences. The z's for commitment and insight were 1.02 and .13, with probabilities of approximately .31 and .90, respectively. Again, the type of pre-student teaching experience appears to have no influence on the two variables measured by the questionnaire.

Summary

In summary, none of the theoretical hypotheses stated in Chapter I has been supported by the data collected for the present study. There does not appear to be any relationship between performance on the MTAI and the measurement of commitment and insight on the open-end questionnaire.

There is also no evidence to support the hypotheses that the type of pre-student teaching experience affects the amount of commitment and insight as measured by the questionnaire. There is, furthermore, the suggestion that short-term experiences might have a more positive effect than extended experience, on the variable of commitment.

The reader will note that tests were not made on the additional data dealing with sex and curricular differences. In view of the lack of statistical support for the original hypotheses, it appeared of little value to run other tests on data dealing with attitudes, insight and commitment.

CHAPTER V

SUMMARY

Introduction

Chapter V will be concerned with an analysis of the results reported in Chapter IV. It will draw those conclusions which seem warranted by the test results and the analysis of the results.

The last section, which will be in two parts, will first propose some possible ways of treating the hypotheses of the present study with more stringent controls and a larger sample. The remainder of the chapter will suggest other researches which might be profitable to pursue as a result of this study.

Analysis of Results

Hypotheses 1 and 2

While the three variables--attitude, insight, and commitment--were, according to the results, statistically independent, this is not to say that they were not causally related. Obviously, the present design was not adequate to test the relationships. Lack of correlation

might have been a reflection of change rather than a lack of commonality between attitude and the other two variables. An underlying assumption of the study (never tested) was that the attitudes measured by the MTAI were somehow related to insight and commitment. This might have been tested if the instrument used for determining insight and commitment had been used as a pretest. A correlation might have then demonstrated a relationship between the MTAI and the interview questionnaire given at the same point in time. Correlations were run between attitudes and the other two variables, but the MTAI was administered in February and the interviews in May.

The two variables identified in the questionnaire were labeled as insight and commitment because questions were designed as measurements of these characteristics. However, there is no way at present for validating the accuracy of these labels or the interpretation of these two variables. One must, therefore, consider the possibility that they may be measuring other factors than, or in addition to, insight and commitment.

Because the students must be identified in respect to the questionnaire, there is a possibility that the factor of "social desirability" is affecting their responses. That is, the students may be responding (not necessarily consciously) in the manner they feel

is expected of them. The nature of the study makes anonymity virtually impossible. Because of this the questionnaire may be subject to some fakability, as several studies identified in Chapter II indicate that the MTAI is.

Hypotheses 3 and 4

While students assigned to extended pre-student teaching contacts were instructed to work with one child for two hours per week for at least twelve weeks, it was discovered after the completion of the study that some had participated for only about an hour to an hour and a half each week. This amounted to an average of about fifteen total hours during the semester. A significant growth in insight would not be expected under such circumstances. For example, student number 4 indicated that his contacts with a junior high school boy never lasted over an hour and a half and were usually shorter than that. His MTAI ranking was 20.5, and his ranking on insight was 29.5. If, as in some cases, the child being tutored did not show up or resisted the efforts of the tutor, this could have had a negative effect on either attitude, commitment, or both, of the college student. In a few instances, if the child did not show up for several sessions the college student was assigned to another child, changing the situation and diminishing the

time in pre-student teaching. Student number 48 was assigned a patient at Ypsilanti State Hospital. The patient reacted rather badly to the tutor and after two weeks refused to show up for the sessions. Two weeks later number 48 was assigned a second patient and completed the semester with this individual, for a total of ten weeks of contact. In this case the MTAI rank was 37.5 and the commitment ranking was 18.

Students involved in short-term experiences tended to put in more than the two hours per week expected. The average number of weeks was more than six, and the number of hours per week was in excess of four. Therefore, the average total hours per student was greater than twenty-four, as compared with approximately fifteen hours for the extended experiences. As a case in point, student number 9 was assigned to after-school recreation, which in this situation involved sports with elementary-age boys. While it was planned for one hour each, two days a week, this student also spent most Saturday mornings with the boys for a full eight-week period. His total hours were almost forty. His MTAI rank was 28.5, while his ranking in insight was 67.5 and in commitment was 62.

Part of the difficulty in equalizing times on the extended and short-term experiences may have been due to the differing nature of

the experiences. Extended contacts were all tutoring, and while the emphasis was placed on establishing good human relations, the college students generally perceived the task as an academic responsibility. The job became more onerous if the student being assisted didn't desire help. In contrast, students in the short-term contacts were working with groups of children in recreational or club activities and after-school recreation (N=7). All but one showed a high degree of insight, if our interview questionnaire is to be believed.

Of the twelve students who had the concentrated experience, five days and four nights at a school-related camp program, eight showed good insight and four ranked extremely low on this variable. There seemed to be no middle ground in this group, though the results would indicate a mean ranking somewhere around the middle. It is possible to assume, though by no means sure, that some students gained greatly from the camping experience, while others received little from the same contact.

Another variable which the researcher attempted to control but which appeared was the difference in teachers of "Human Growth and Development" and of "Educational Psychology" in their relating classroom activities with pre-student teaching experiences. All had agreed to utilize the experiences in their classrooms. In some

cases this was done, but in others little attention was given to the student's child contacts. Therefore, students with short-term experiences working with a teacher who helped them to understand the nature of their relationships with children might well get more understanding than would other students who had extended experiences but who received little or no aid in interpreting the meaning of the contacts.

An additional complication was created by one instructor's use of the MTAI as a teaching aid. After administering this instrument, he informed the students of the meaning of low and high scores. Knowledge of their scores could have affected their feelings about themselves and subsequently their responses to the questionnaire.

Conclusions

This study produced no evidence that there is any relationship between attitudes, as measured by the MTAI, and insight and/or commitment as measured by the interview questionnaire.

Insight and commitment as measured by the interview questionnaire are independent variables.

There is no evidence that extended experiences are more beneficial for insight and commitment than are short-term experiences. It should be noted that the short-term contacts averaged

twenty-four hours per semester, while the extended contacts averaged fifteen hours. The conclusion could be drawn that more hours result in more insight and commitment.

The results of this study indicate that concentrated experiences are of no more value than short-term experiences.

Recommendations

Retesting the hypotheses in this study

Since this writer still feels that there is a need to discover the effect of attitudes on the potential performance of future teachers, efforts should be made to develop a more subtle instrument to be used as both a pretest and a posttest to obtain the desired information about insight and commitment. An example of such an instrument which might identify the variables more precisely could be a checklist in which the students would indicate which of a series of adjectives best describe their experiences or describe their feelings about their experience most accurately. It is possible to raise the objection that paper-and-pencil tests, no matter how sophisticated, are not sufficient to measure the variables dealt with in this study. Since attitudes, insight, and commitment as defined in this study are demonstrable by a person's behavior in working with children, observational techniques should be used to

test this behavior. One such technique, developed by Flanders, is called interaction analysis.¹

The MTAI should be used as both a pretest and a posttest. Another attitude instrument, such as the Kerlinger,² should be used in conjunction with the MTAI before and after. A personality measure such as the Edwards Personal Preference Schedule³ or the Minnesota Personality Scale⁴ should be administered to discover whether there is some other aspect of personality besides attitude which relates to insight and commitment.

¹N. A. Flanders, "Interaction Analysis: A Technique for Quantifying Teacher Influence" (Paper available from author; read at AERO Convention, 1961), pp. 1-10. (Mimeographed.)

²The Kerlinger Education Scales (ES-1 and ES-2) are attitude scales developed to meet the desire for a relatively short, valid, and reliable scale for research and broad administrative purposes, capable of quick and easy administering to groups of individuals. (For further information, see references to Fred N. Kerlinger in the Bibliography.)

³Used for college students and adults--fifteen scores: achievement, deference, order, exhibition, autonomy, affiliation, intraception, succorance, dominance, abasement, nurturance, change, endurance, heterosexuality, and aggression. Allen L. Edwards, Psychological Corporation, 1953-1957. (For further information see reference to Edwards in the Bibliography.)

⁴For use with grades eleven to sixteen--five scores: morale, social adjustment, family relations, emotionality, and economic conservation. John G. Donley and Walter J. McNamara, Psychological Corporation, 1941.

A sample should be of sufficient size to allow for the elimination of those individuals whose field experience is changed or who, for one reason or another, no longer meet the requirements established for the study.

In comparing extended and short-term experiences, both the total number of hours and the type of experiences should be matched. Tutors should be compared with tutors, club leaders should be compared with other club leaders, and recreational directors should be measured against recreational leaders.

Students chosen for the research should be taken from classes in which the instructors provide opportunity for the evaluation of the field experience. Instructors should agree not to disclose the meaning of instruments administered for purposes of the study.

Other researches suggested by the study

The extreme differences in insight and commitment among selected students drawn from classes in which instructors utilized class time for discussion and evaluation of pre-student teaching experiences and partly from classes where instructors virtually ignored students' direct experience with children raises some interesting questions. Do students learn more human growth or educational psychology with the former than the latter? Do students feel

more prepared for teaching with the former? Is there a difference in performance in student teaching as a result of class discussion and evaluation?

A number of students in responding to the open-end questionnaire suggested that classroom experience would have been more valuable than the less formal pre-student teaching contacts they had received. Would classroom experience be more valuable in helping students understand human growth than less formal experiences like tutoring or recreational leadership? Should informal experiences precede classroom contacts or vice versa?

The difficulty in this study of drawing statistically significant comparisons between working with one child and groups of children suggests another series of studies. Educators with responsibility for preparing teachers need evidence to support the use of one kind of pre-student teaching or another. The comparisons, as has been stated earlier in this chapter, need to be between like experiences.

One of the concerns about the concentrated experience (school camping) expressed by teachers of human growth was that there was no opportunity to assist students to evaluate experience until the pre-student teaching contact was ended.

It would be interesting to send a class of students from "Human Growth" or "Educational Psychology" to a school camp

as counselors with the instructor spending the week with his class. This might make it possible to evaluate the learning of human growth in a field setting. What would be the differences in the teacher's evaluation of the student's understanding of human behavior compared to more traditional approaches to grading students on subject matter?

It is possible that an orientation and training program to prepare students to make maximum use of pre-student teaching experiences might prove valuable. Comparisons could be drawn with matched students, some of whom would have a training program while the remainder would not receive training.

In any of the proposals above and in the field of education generally, there is great need for longitudinal studies to discover the impact of our programs for the preparation of teachers. More specifically, it would be very valuable to discover if early attitudes of students (prior to their entry into education courses) can be affected significantly by our classroom, pre-student teaching, and student teaching programs.

Summary

The first section attempted to analyze the results of the study. It pointed up the lack of correlations between the several

variables and identified a number of weaknesses in the present design that might have affected the results.

The second part listed the conclusions which could be drawn from the negative results obtained from the data.

The final section attempted to recommend some restructuring for a new study through the use of additional and more refined measures and through more stringent controls which might be bases for a new design. The writer feels that the relationship of attitude and the potential performance of teachers-in-training still needs to be given careful study. He hopes to have the opportunity to test the hypotheses with the inclusion of additional techniques and more stringent controls as suggested by the recommendations.

In the latter part of this section several suggestions were proposed for other studies related to understanding attitudes and the improvement of pre-student teaching and teaching programs in our preparation programs for teachers.

APPENDIXES

APPENDIX A

PRE-STUDENT TEACHING AT

EASTERN MICHIGAN

UNIVERSITY

**PRE-STUDENT TEACHING AT
EASTERN MICHIGAN
UNIVERSITY**

The Department of Education of Eastern Michigan University has an extensive professional laboratory experience program encompassing both student teaching and pre-student teaching.

While the student teaching program is not directly related to this study, there are certain aspects of it which have affected the development of pre-student teaching generally, and this study in particular.

Although these two programs are conducted by separate coordinators, there is much cooperative planning and communication. College supervisors of student teachers, who teach education courses for sophomores and juniors, utilize pre-student teaching experiences for their students. Laboratory school and off-campus supervisors who receive our students for student teaching share with us their insights concerning the gaps in the preparation of teachers which could be filled by earlier field experiences. Laboratory school teachers and off-campus public school teachers offer our students opportunities for participation in their classrooms. Occasionally students are dropped from student teaching and the pre-student teaching coordinator is asked to find a placement which will enable

the student to gain more experience in a particular setting before reapplying for student teaching. Even after the completion of student teaching, students have been advised (or have decided for themselves) to obtain further field experience prior to applying for teaching positions.

The pre-student teaching program was instituted in the fall of 1963, partly as a result of insights gained by staff and students in the student teaching program and partly in response to college teachers who perceived their students' needs for opportunities to relate theory and practice. As the program has developed, four clear purposes for early field experiences have evolved:

1. To help the student to discover if he is capable of working with children or youth. There are many students who have decided upon a teaching career with little, if any, contact with people younger than themselves. Early informal (nonschool) participation with youngsters can help these students discover whether they can work with children, relate to them, and enjoy the contact.

2. To help the student discover with which children, at which level, under what circumstances he can function most adequately. Most students matriculating in teacher education at Eastern Michigan University have had experience working with some children. A large share of them have done babysitting and Sunday School

teaching with children from middle-class homes. They have had little or no contact with handicapped, gifted, or deprived children. In most cases their contacts have been with a particular age group. For example, a student will indicate a desire to be a high school teacher when her only experience has been baby-sitting with pre-school-age children.

3. To aid the student in relating theory and practice. As was stated earlier, many college instructors have recognized this need. The particular value of this in an undergraduate program is that the student has available professional help both from the college professor and the supervisor in the field as well as learning to make some relationships of his own. This is by far the most accepted reason for pre-student teaching in colleges and universities across the nation.

4. To prepare the student for student teaching and teaching. Classroom supervisors of student teachers have reported that it is relatively simple to differentiate between students who have had significant experiences with children and those who have not. The series of experiences from informal out-of-school contacts to classroom assistance are geared to help the student build his skills at working with children and in guiding their learning experiences. Having had opportunities to work with teachers has helped many

future teachers to develop confidence and a feel for ways of managing children in a classroom setting.

The pre-student teaching experiences available to students are many and varied. There are two general classifications of field experience--those involving classroom participation, and all nonclassroom-related contacts.

Generally, the classroom experiences, since these are more limited in number, are reserved for students in "School and Society" or "Principles of Teaching" courses, the last courses prior to student teaching. In addition, students who have had extensive experience working with children may be assigned a classroom contact prior to taking the above-mentioned courses. This may allow them more than one class experience before student teaching.

Classroom assistance may take any form: working with individuals, small groups, handling the total class for short periods, or carrying on any of the duties of the teacher. While most of the classroom contacts are either in the laboratory schools or the public schools, students are also placed in schools at Boys Training School, Wayne County Training School, in classrooms at Ypsilanti State Hospital, or in the elementary school at Southern Michigan Prison. A less formal type of classroom setting also used is the private nursery school.

The nonclass contacts fall into a number of categories. While they seem separate and discrete, they have many similar characteristics and strengths for the preparation of teachers. The major areas are:

1. Tutoring
2. Recreational leadership
3. Club activity direction
4. School camp counseling
5. Day care and nursery assistance
6. Street gang assistance
7. Lunchtime supervision
8. "Big" brother and "big" sister programs
9. Scout troop assistance

Within the areas listed there are many different activities, dependent upon the needs of the youngsters and the agencies and the skills and interests of the college students serving.

In each of these activities the most important role of the college student is to develop good human relationships with the child or children. Unless good rapport can be established, no effective or constructive programs of service can be achieved.

The involvement of college students in any program varies; an hour and a half once or twice a week in tutoring or club activities, an hour a day every day for noontime recreation, several hours a week for recreation, nursery, or Scout troop assistance, an afternoon or evening for big brother or street gang assistance. Most of these activities are carried on for one semester. The

school camp counseling operates differently. In this situation the college student takes a full school week off and lives with a group of children in a camp setting for five days and four nights. While the camp counseling causes a disruption of the students' academic schedule, almost every student has reported it to be a significant and valuable experience.

For the vast majority of the students, the pre-student teaching program starts at the second semester of the sophomore year or the first semester of the junior year, when they take their first education course. The course is either "Human Growth and Development" or "Educational Psychology."

An increased number of freshmen and first-semester sophomores have been requesting placement in the program. This is an outgrowth of orientation sessions conducted by the coordinator of pre-student teaching for first- and second-year students.

Each student fills out forms indicating previous experience with children and the kinds of activities in which they would like to participate. Each has an interview with a member of the pre-student teaching staff and an assignment is worked out according to the student's interests and the needs for experience. In the past semester, some fifteen hundred students were given some type of field experience other than student teaching.

APPENDIX B

**MTAI SCORES ON 312 STUDENTS TO WHOM
THE MTAI WAS ADMINISTERED AT THE
BEGINNING OF THEIR FIRST SE-
MESTER IN PROFESSIONAL
EDUCATION DURING THE
1964-1965 SCHOOL
YEAR**

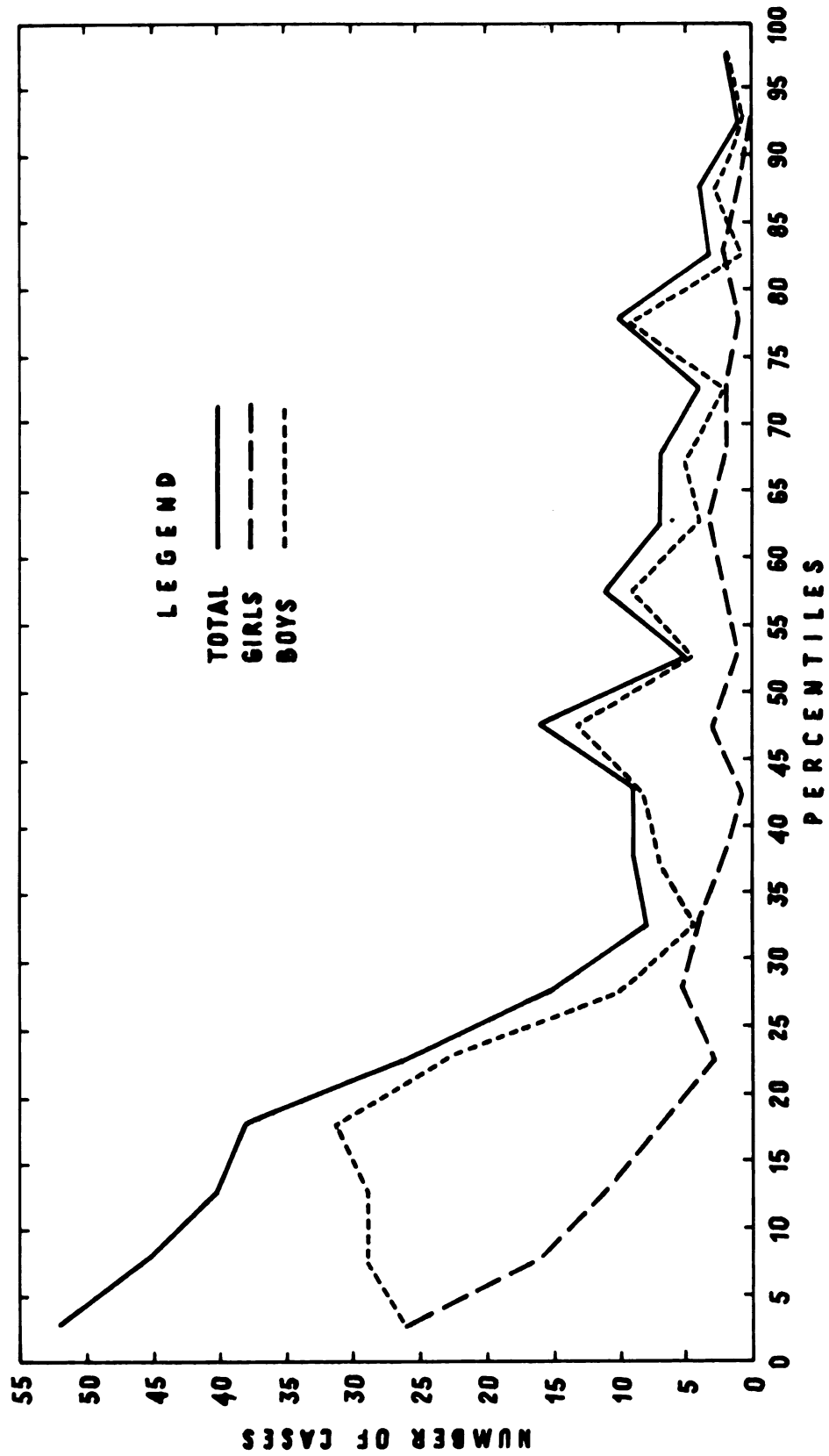


Fig. 6.--MTAI scores on 312 students to whom the MTAI was administered at the beginning of their first semester in professional education during the 1964-1965 school year.

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