# AN EXPLORATORY STUDY OF ATTITUDES TOWARD CHILDREN EXPRESSED BY UNDERGRADUATE TEACHER CANDIDATES

By

Clyde M. Claycomb

AN ABSTRACT OF A THESIS

Submitted to
Michigan State University
in partial fulfillment of the requirements
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Department of Secondary Education and Curriculum
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ABSTRACT

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The purposes of this investigation were: (1) to determine whether there was a significant difference between the expressed attitudes toward children of those individuals beginning professional education courses and those individuals concluding the professional education sequence and (2) to determine whether various demographic factors, as defined by this study, were significantly related to these attitudes.

The resolution of these objectives was sought by administering and scoring the Minnesota Teacher Attitude Inventory (MTAI) and administering and tabulating the information on a demographic questionnaire.

The sample consisted of 290 teacher candidates at Michigan State University. Of the 290 students who took the MTAI and demographic questionnaire 279 completed both forms satisfactorily. This yielded a return rate of 96.2 percent.

The independent variables in this study included: extent of professional training, sex, grade level

preference, subject area competency, type of school (K-8 and K-12) in which educated, number of siblings, school location preference and racial composition of school preference. An individual's score on the MTAI served as the dependent variable in every analysis. Mean scores on the MTAI were computed for each level of all independent variables. A multivariate analysis of variance test was then computed to determine whether observed differences between means were significant. If the results of the analysis of variance showed statistical significance, a Scheffe' Post Hoc comparison was calculated to determine which of the means were responsible for the statistical significance.

The analyses of the MTAI mean scores in relation to the independent variables of personal demographic data and level of professional training revealed six significant differences in MTAI mean scores at the .05 level. Of the nine variables tested the six significant variables were: (1) level of professional training, (2) sex, (3) subject competency, (4) type of community raised until college, (5) school location preference and (6) racial composition of school preferred. The three independent variables which were not statistically significant at the .05 level were: (1) number of siblings, (2) type of school educated and (3) grade level preference. Although grade level preference did obtain a significance of .058 indicating that there is some relationship between grade level preferred and one's

expressed attitudes toward children, the other two independent variables did not appear to have any relationship to one's expressed attitudes toward children.

In short, this study suggests that those individuals who have the most positive attitudes toward children have completed their professional education course sequence, are female, have been raised in a suburban or urban setting, prefer to teach in grades kindergarten through the third grade, prefer to teach in the inner-city and prefer a school composition of nearly equal or more "non-white" students than "white" students.

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# CHAPTER I

## INTRODUCTION

It is not by chance that schools look as they do today. With society undergoing such fundamental social changes that it is appropriate to use the term social "revolution." Changes in schools and attitudes toward schools are undergoing such minute changes that the label "conservative" may be generous. Consider, for example, the continued stress on age as the determiner of educational policy. Almost without exception, individual differences among students of a given age, are virtually ignored. In short, schools seem more concerned with mass production than with the development of unique human potential.

As Gardner[1] suggests, if schools are going to be more attuned to major social changes, attention must be given to problems of attitude and attitude change. Central to this concern must be the effect of teacher attitudes on children.

Arthur Combs states that some of the improvements in learning environment can be accomplished by spending money, building better schools, introducing new equipment and standards and adding courses of study. However, he

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[1]J. W. Gardner, Self-Renewal: The Individual and the Innovative Society. New York: Harper and Row, 1963, p. 15.

maintains that the really important changes will occur only as teachers change, for institutions are made up of people and it is the behavior of teachers in the classrooms that will finally determine whether our schools meet or fail to meet the challenge of our times.[2]

Bayham reinforces Combs' contention that "whatever changes and improvements in curriculum and methods are launched, the crucial factor appears to be the teacher's attitude. Teacher expectation, in itself, can have a surprising effect on pupils' achievement, and the teacher who expects achievement and who has faith in the educability of his pupils conveys this hope through every nuance of his behavior."[3]

Attitudes of teachers and those planning to become teachers take on ever-increasing meaning with today's outcries from a racist society (where 35 million adults never completed the eighth grade and another 11.5 million have no schooling at all[4]) that our schools are inadequate and the school curriculum is irrelevant. When one realizes that nearly all of the federally funded compensatory education programs have chosen to rectify iniquities in the above-mentioned non-human variables, one begins to question whether

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[2]Arthur Combs, The Professional Education of Teachers, New York: Allyn & Bacon, 1965, p. 5.

[3]Dorsey Bayham, "The Great Cities Projects," Stirrings in the Big Cities: The Great Cities Projects, Ford Foundation Reprint from the N.E.A. Journals, Vol. 52, No. 4, April 1963.

[4]U.S. Bureau of the Census, U.S. Census of Population 1960, Subject Reports, Education Attainment Final Report, PC (2) 5B, U.S. Government Printing Office, Washington, D.C. A 63, p. 41.

change is a goal of government. Consider that the attributes of school facilities and curriculum practices account for far less variation in achievement of minority group children (than do the attributes of other students) and slightly less than the attributed of staff, including teachers.[5] Therefore, one must conclude that the composition of student population in the school environment makes the most difference in a student's intellectual development.

Consider that federally funded compensatory programs seem to focus upon improvements in areas (school facilities and curriculum practices) that have been found less highly significant to student achievement. This gives added impetus to the desirability of studying school population and personnel attitudes. But school population is mostly a geographic problem whereas personnel attitudes are problems in the educational domain. Being in the educational arena, attitude change could get immediate attention from teacher education curricula.

It is in this area of teacher attitude toward learning and even more significantly, attitudes toward children that educational institutions must begin to focus. This focus should begin with an assessment of where we are today; in order to provide teacher education programs which will move toward developing teachers whose primary goals will be helping students to realize self-actualization, cultural

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[5]James S. Coleman, Equality of Educational Opportunity, A Publication of the National Center for Education Statistics, Washington: U.S. Government Printing Office, Catalogue No. FS 5.238:38001, 1966, p. 302.

change and continuing education. This represents a shift from the present purposes teachers fulfill in school; that it, perpetuation of customs, attitudes and practices of the adult generation, which are a socialization and inculturation process.

This study will attempt to assess the attitudes of students now taking courses at Michigan State University in the College of Education. There will be no attempt to include a selected sample from practicing teachers in the schools. This is because the educational focus must be on those people who are attempting to learn and understand and are within the reach of educational programs.

## Purpose of the Study

This study will attempt to assess, by means of the MTAI, the positiveness of those attitudes toward children expressed by undergraduate teacher candidates at Michigan State University. The students to be tested will consist of two undergraduate groups: one group will include those students who are beginning their professional education course work, the other group will include those students completing their professional education course work. The main objectives of the study are: first, to describe the attitudes toward children of the two groups being sampled; second, to determine whether there are any relationships between the demographic factors as defined by this study and expressed attitudes toward children; third, to make comparisons of the two groups expressed attitudes toward children.

## Questions

In order to realize the purpose of this study, answers to the following questions will be sought. The purpose of these questions will be to provide a general framework upon which this study is based.

I. What are the expressed attitudes toward children of undergraduate teacher candidates at the time they begin their professional education courses and as they finish the professional sequence.

II. What interrelations exist between the demographic data as defined by this study and the expressed attitudes toward children of the two groups sampled?

Sub-Question 1: Is there any relationship between one's sex and his expressed attitudes toward children?

Sub-Question 2: Is there any relationship between the number of siblings in one's family and his expressed attitudes toward children?

Sub-Question 3: Is there any relationship between one's teaching area competence and his expressed attitudes toward children?

Sub-Question 4: Is there any relationship between the type of community one was raised in and his expressed attitudes toward children?

Sub-Question 5: Is there any relationship between the type of school in which one was educated and his expressed attitude toward children?

Sub-Question 6: Is there any relationship between one's teaching preference (grade level) and one's expressed attitude toward children?

Sub-Question 7: Is there any relationship between one's teaching preference (school location) and one's expressed attitude toward children?

Sub-Question 8: Is there any relationship between one's teaching preference (racial composition of school) and one's expressed attitudes toward children?

III. What differences, if any, exist between the expressed attitudes toward children of the group starting their professional educational courses and the group finishing their professional education courses?

## Clarification of Term Usage

For purposes of clarity, terms which are frequently used throughout this report will be referred to as follows:

1. Minnesota Teacher Attitude Inventory may be referred to as the M.T.A.I.

2. Attitudes as used in this report will be those which are measured on the Minnesota Teacher Attitude Inventory. It will be assumed that attitudes are always attitudes toward children unless otherwise specified.

3. College education students or college students may be referred to as students and are assumed to be those in the College of Education, unless otherwise specified.

## Limitations

This investigation of attitudes has the common problems that all investigations of attitudes have, that is, the problems of making judgments and classifying attitudes. This is further complicated by the use of paper and pencil as a means to communicate and measure attitudes.[6] Another common problem in any investigation is the difficulty of getting complete cooperation of the respondents. This lack of cooperation includes such characteristics as the respondent's vested interest, their interest in the study, and the accuracy of their replies.

A specific limitation in the investigation is making comparisons across the groups sampled without controlling such intervening variables as: variability of individual experiences, a changing society, values, interactions and communication contaminates. Another specific limitation in making comparisons across groups is the limitation of a cross-sectional study versus a longitudinal study, making it nearly impossible to judge if a group has, in fact, changed its attitudes toward children. It is possible that any differences observed across groups could be attributed to different group entering characteristics or that outside forces have caused the attitude change.

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[6] J. W. Getzels and P. W. Jackson, "The Minnesota Teacher Attitude Inventory, pp. 508-522. In Handbook of Research on Teaching, Edited by N. L. Gage, Chicago, Ill: Rand McNally Co., 1963, p. 13.

## Organization of the Study

Chapter I. Introduction

In Chapter One the introduction to and purpose of the investigation, questions to be answered by the study, clarification of term usage, limitation of the study and organization of the study are included.

Chapter II. Review of Related Research and Literature

In Chapter Two the literature related to this study is reviewed. In addition, research which is relevant to the purpose of this study or has a bearing on the study is reported.

Chapter III. The Research Procedure

In Chapter Three the research design, description of the questionnaire and description of the analysis process is reported.

Chapter IV. Analysis of Data and Findings

In Chapter Four the setting of the study, sample population, correlation analysis and statistical tests are reported.

Chapter V. Summary, Conclusions and Recommendations

In Chapter Five, the summary, synopsis of the problems, conclusions and recommendations are presented.

# CHAPTER II

## REVIEW OF THE LITERATURE

This chapter proposes to review the pertinent literature which is significant to the investigation of attitudes in accordance with the purposes of this study. In no way should this review be seen as a summation in toto, for there are voluminous studies related to attitudes.

For organizational purposes, the chapter is categorized into seven divisions. The seven divisions are as follows: Introduction, Attitude Definition and Theories, Attitude Change, Desirable Teacher Behavior, Teacher Social Class Attitude in Relation to the Disadvantaged, Teacher Attitudes in Relation to Effectiveness and the Summary.

### Introduction

> For overwhelmingly it has been our failure to invest in people....whether the problem be that of a burgeoning population and of space in which to live with peace and grace, or whether it be the depletion of the materials which nature has stocked in the earth's crust and which have been drawn upon more heavily in this century than in all previous time together, or whether it be that of occupying minds no longer committed to the stock piling of consumer goods, the basic demand on America will be on its resources of ability, intelligence, and education....Education is in the public domain.[7]

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[7] J. K. Galbraith, The Affluent Society, New York: Mentor Books, 1958, p. 274.

Throughout the nation, school systems have developed elementary and secondary curricula which appear to work relatively well for a sizable proportion of the students. Most of the entering students are able to complete these programs successfully, if financial and other obstacles do not loom too large. Educational programs are increasingly the determiners of status and economic opportunity, and completion of a secondary education has become the minimal requirement for successful entry into the larger society. Especially in highly developed nations, the individual who is not able to complete school is denied admission to an ever-enlarging section of the occupational system. For as a society becomes more highly developed, it increasingly depends on certification and accreditation as admission criteria to the occupational system. This, then, negates the benefits to be gained from cultural change and curtails new orientation in teaching programs.

Bloom outlines far-reaching social changes which will require a new conception of the tasks of schools, new orientation in teaching programs and new views about the roles of the participants:

First, a rapidly developing, complex, urban, industrial society requires that functioning members of this society be highly literate, responsive to rapid changes in every area of life and work. This also requires that they be able to learn and re-learn complex ideas and skills as minimal conditions for economic security, social maturity and independence.

Second, raising the levels of aspiration of individuals and groups that have long been submerged or placed in marginal positions.

Third, increasing the responsiveness of government to the needs and pressures of individuals as well as subgroups in the population.

Fourth, raising the level of affluence which would make further material goals for many individuals somewhat subordinate to other goals such as security and interpersonal relations.[8]

These concepts for social change are some of the major controversies confronting college faculties today. Other controversies in teacher education center around the question of whether there are any common criteria by which a teacher can be judged as effective in the school classroom. There does appear to be nearly common agreement among educators that harmonious interpersonal relationships are of primary importance to significant learning in the classroom, and that the teacher is primarily responsible for the creation of these relationships. It would then seem feasible to state that the capacity to develop harmonious relationships in the classroom could be considered one of the essential criteria for determining the effectiveness of classroom teachers as they endeavor to create conditions for significant learning in their respective classrooms.

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[8]B. S. Bloom, A. Davis and R. Hess, Compensatory Education is Cultural Deprivation, New York: Holt, Rinehart and Winston, Inc., 1965, pp. 1-2.

The behavioral changes which take place in students now, due to their classroom experiences, may affect the students throughout their total existence. These learning experiences and behavioral changes are related to the teacher and his personal characteristics, including his attitudes toward youth.

One of the vital components of teacher-pupil relationships that is in need of further study is that of teacher attitudes toward youth. The attitudes of teachers appear to predispose teacher behavioral patterns that are contributory toward the establishment of wholesome teacher-pupil relationships, thereby leading to potentially more effective teaching and more significant learning. Cook has said that while the difference between teachers cannot be explained wholly in terms of attitudes toward youth, attitudes are the result of the interaction of many factors, and therefore they give an indication of the type of social atmosphere that will be found in that teacher's classroom.[9]

Within recent years the effectiveness of teacher education has been frequently questioned by persons within and outside the teaching profession. It is held that officials of teacher education departments are seldom able to defend their programs with anything more than mere opinions, impressions, estimates and guesses.[10] Research conducted by

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[9]W. W. Cook, C. H. Leeds and Robert Callis, Minnesota Teacher Attitude Inventory, Manual, pp. 3-4.

[10]James D. Koerner, The Miseducation of American Teachers, Boston: Houghton-Mifflin Company, 1963.

Miller[11] indicates that few colleges have informal, let alone formal, channels for identifying and screening even those students classable as poor risks before they become teachers. It is tragic and wasteful for such a student to spend his and others' time until the last year of college, then to be told that he will not be recommended for a teaching position, or that he will not be permitted to finish his college work. It is worse and more tragic for college officials to allow him to slip by, to enter the profession and add to the number of unhappy and unfit teachers.

However, our teacher education institutions are being asked to produce teachers who are well educated academically and professionally, who are socially mature, emotionally stable and who have a deep understanding of the nature of youth. Thus, augmented demands placed on our public schools during the past few years have placed increased obligations on teacher education institutions to develop teachers with better attitudes toward youth than ever before.

## Attitude Definition and Theories

In 1933 Droba[12] found that 86 percent of the writers of texts on social psychology up to that time had employed the term "attitude" in their works. Giddings apparently was

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[11]Lebern N. Miller, "Evaluating Teaching Personality Before Student Teaching Begins," Journal of Educational Research, Vol. 56, No. 7, Mar. 1963, pp. 382-385.

[12]D. D. Droba, "The Nature of Attitude," Journal of Social Psychology, Vol. 4, November, 1933, p. 35.

the first to use the term in his Principles of Sociology published in 1896. Judd made use of it next, in a work published in 1907; then Munsterberg, who used the term in 1917; finally Warren employed it in 1919. Thus the term is comparatively recent in so far as its use in textbooks is concerned.

The authors who have written in the field of attitude vary in their theories about it. Some have implied that attitude is but a hypothetical phenomena with varying degrees of importance. However, Droba[13] implied that attitudes are no more hypothetical than any other psychological phenomena, such as intelligence, mechanical ability or musical ability. In fact, he contended that attitudes can be made tangible through certain indicators, such as statements that are accurate enough for the purpose of measurement. Droba divided the authors on attitude into three group types, including (1) those who give no definition of what they mean by attitude, (2) those who give a tentative working definition in relationship to a particular research in which they are engaged, and (3) those who give a more elaborate definition in relation to a theoretical discussion.

Among those who have given an elaborate definition of attitudes in relation to a theoretical discussion, there seem to be two positions: those who are associated with the behavioristic school of psychology perceive an attitude as the manifestation of behavior, while the other position

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[13] Ibid., p. 444.

contends that an attitude is a predisposition to action toward some object.

Those writers disposed toward the behavior theory type maintain that an attitude is not a state of preparation in the individual but is the behavior itself. This theory, states that the content of an attitude represents the totality of certain types of conduct with respect to a particular object. In this group, Bain[14] states that an attitude is the comparatively stable manifest behavior of an individual effecting his status. Others have also expressed the opinion that attitudes are concerned with doing, with reactions rather than with anything else. However, they recognized that "verbal attitudes" are of special value in a democratic community where the common conduct comes from the verbally expressed desires of the people.

Of those writers who have defined attitude as a general preparation to action, Lundberg[15] states that an attitude indicates the general predisposition of the organism toward an attitude object. It is a composite of all the neural and other psychological sets of the organism toward an attitude object. Cantrill[16] contributed to the theory of attitudes the idea that attitudes are general rather than specific.

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[14]Read Bain, "An Attitude on Attitude Research," American Journal of Sociology, 33: 950, May 1928.

[15]G. A. Lundberg, Social Research: A Study in Methods of Gathering Data, New York: Greenwood Press, 1968, p. 198.

[16]H. Cantrill, "General and Specific Attitudes," Psychological Monograph, 1932, Vol. 42, No. 192, pp. 109.

Further, Doob[17] asserts that an attitude is an anticipatory and mediating response brought about by a variety of stimulus patterns, which is felt to be socially significant in the individual's world. Allport[18] refers to attitude as a state of readiness which exerts a directive influence upon an individual's response to related objects and situations.

The common thread of thought in each of the above definitions is that attitude is a consistency of response to specific stimuli or social objects.[19] Further, each definition implies a consistency or predictability of responses.[20] Finally, it should be noted that the vast majority of authors favor this conception of an attitude over the behaviorists position.

## Attitude Change

Of parallel importance to the study of attitudes is the problem of attitude change and a reasonable measure of significant change or consistent shifts of response. Hoover

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[17]Leonard William Doob, Public Opinion and Propaganda, Hamden Conn.: Anchor Books, 1966.

[18]G. W. Allport, "Attitudes," A Handbook of Social Psychology, Cambridge, Mass.: Addison-Wesley, 1954, pp. 798-844.

[19]B. F. Green, "Attitude Measurement," in G. Lindsey (ed.), Handbook of Social Psychology, Cambridge, Mass,: Addison-Wesley, 1954, pp. 335-369.

[20]Ibid., p. 336.

and Schutz[21] maintain that building and altering attitudes has been and remains one of the basic objectives of formal education. It is therefore important to know how reliable any shift in attitude response is.[22] Studies of attitude change have been conducted in several areas including impact of cognitive input, group pressures and various direct manipulations.

For many years it was assumed that cognitive changes brought about affective changes as well. However, research apparently fails to support this assumption. The Jacob report[23] and Lagey study[24] have indicated that college students are little affected by any one or a series of courses designed to bring about significant attitude changes. Costin,[25] on the other hand, demonstrated that the students of a child psychology class became significantly more permissive in their attitudes toward children after exposure to the course content than before exposure. Scholastic achievement was shown to be unrelated to this change and a control

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[21]Kenneth H. Hoover and Richard E. Schutz, "Student Attitude Change in an Introductory Education Course," The Journal of Education Research, Vol. 61, No. 7, March 1968, pp. 300-303.

[22]Green, op. cit., pp. 335-369.

[23]Philip E. Jacob, Changing Values in College, New York: Harper and Row, 1957.

[24]Joseph C. Lagey, "Does Teaching Change Students' Attitudes?" Journal of Educational Research, Vol. 50, Dec. 1956, pp. 307-311.

[25]Frank Costin, "The Effect of Child Psychology on Attitudes Toward Parent-Child Relationships," Journal of Educational Psychology, Vol. 49, Feb. 1958, pp. 37-41.

group of students in a sociology class did not reveal significant changes in their attitudes toward children. The indications are, however, that significant results in the latter type of studies are not common, i.e., the assumption that the academic approach to attitude change is sufficient lacks substantiation. Value-laden approaches to attitude change are more consistently effective in their results.

The influence of group pressure on individual attitude change has particular relevance to the college setting for two reasons: (1) classroom instruction is directed toward groups of students, and group interaction is often encouraged (2) a wide variety of group activity is an inherent function of the educational process. Studies investigating the conditions under which attitude change is fostered through group experience offer a few specific insights into the general process of formal education. Newcomb and others[26] partly supported the hypothesis that the increased salience (awareness) of a membership group will change a member's attitude in the direction of that group's norm as opposed to the norms of other groups in which he may be a member. A questionnaire revealed that an experimental group of Roman Catholic students in which salience was increased, more closely approximated the orthodox Catholic belief than did either of two control groups of Catholic students. No significant differences appeared among these groups on items

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[26]T. M. Newcomb, E. E. Macoby, and E. L. Hartly, Editors, Readings in Social Psychology, Third Edition, New York: Henry Holt and Co., 1958, pp. 174-183.

of the questionnaire which were irrelevant to the Catholic belief.

Katz, Sarnoff and McClintock[27] have investigated attitude change based on the theory that attitudes are highly susceptible to change provided that such change does not present a threat to the basic values of personality structure for the individual. Their study contrasted two approaches to attitude change. The first approach, interpretive (or ego-defense) is that the attitude would be changed according to the insight the individual gained into them. The second approach, informative (or rational) provides that attitudes would be changed by presenting logical information in contrast to the attitude. They found that the attitude change among the groups of students studied was greater for those groups structured on the ego-defense approach rather than for those groups characterized by the rational approach. Although the difference between these two groups was not statistically significant for the immediate post-test, it was significant (.05 level) six weeks later indicating that changes in attitudes through ego-defense interpretation have a more lasting effect. If ego-defense is a pervasive quality of adjustment which is derived from a manifest value structure, the presence of value conflict would negate attitude change and its absence should facilitate it.

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[27]Daniel Katz and others, "Ego-Defense and Attitude Change," Human Relations, Vol. 9, 1956, pp. 27-44.

The Brim[28] study focuses on the probable events or experiences which could foster attitude change. He administered a pre-test and post-test at the beginning and end of the quarter. After checking for significance between the pre-test and post-test he concluded that any difference was due to a change in attitude during that quarter. He then interviewed those students which showed the greatest difference in their pre-test and post-test. The interview focused on the students perception of the cause for their attitude change. After analyzing the student perceptions, Brim concluded that actual laboratory experience (observing and assisting in public school classrooms) is the most effective in changing attitudes. And that students perceived the methods of instructors to be almost as effective in producing changes in attitudes as were laboratory experiences. The instructor's method implied broad philosophical beliefs which had a definite bearing upon student thought. The techniques specifically mentioned were the following: (1) use of the psychological principle of reinforcement, (2) the presentation of highly controversial ideas, (3) continuously presenting provocative questions, (4) citing examples to clearly illustrate points, (5) showing great energy and enthusiasm for teaching, (6) presenting students with opportunities to draw their own conclusions (allowing much freedom), (7)

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[28]Burl J. Brim, "Attitude Changes in Teacher Education Students," Journal of Educational Research, Vol. 39, No. 10, 1966, pp. 441-445.

articulating lectures with the textbook and (8) making inferences through side comments.[29]

Lehmann, Sinha and Hartnett[30] studied attitude change by investigating the relationship between amount of college education and changes in attitudes of stereotyping and dogmatism, in traditional-value orientation and in certain selected attitudes and views related to higher education. The major findings of this study include: (1) that regardless of sex and amount of college education, all groups tended to become less stereotypic in their beliefs, less dogmatic and more receptive to new ideas,[31] (2) female seniors changed significantly more in their receptivity to new ideas (lessened dogmatism) than did their male counterparts between 1958 and 1962. But, both male and female seniors became less stereotypic in their beliefs, less authoritarian, and more flexible between their freshman and senior years,[32] (3) various male groups did change significantly, but those experiences that had an impact upon them differed from those that influenced female personality development. This might suggest that college administrators attempt to

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[29]Brim, op. cit., p. 444.

[30]Irvin J. Lehmann, Birendra K. Sinha and Rodney T. Hartnett, "Changes in Attitudes and Values Associated with College Attendance," Journal of Educational Psychology, Vol. 57, No. 2, 1966, pp. 89-98.

[31]Lehmann, op. cit., p. 95.

[32]Ibid., p. 96.

capitalize on the experiences unique to each sex rather than attempt to apply the same prescription to all.[33]

This study further illustrates that the magnitude of change in certain beliefs, ideals, interests and attitudes certainly leaves much to be desired in terms of the professed aims and objectives of colleges and universities.[34]

Although attitudes and values are instilled early in life and are most easily modifiable in infancy and adolescence it is readily evident that changes do take place during ones college years.[35] It is therefore imperative that our colleges and universities recognize these facts and discard the notion that behavior characteristics are not their concern because it is too late to do anything about them. Just as the myth that intellectual development ceases after a certain age has been refuted, the notion that personality change is not possible for college students should be discarded. However, a college education, per se, is not instrumental in bringing about these changes, although college attendance might facilitate this development. Therefore, college faculties and administrators must realize that they are not necessarily providing a unique experience for their students, but that maturation and social environment might have more impact upon personality development than courses and formal academic experiences.[36]

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[33] Ibid., p. 97.

[34] Ibid., p. 96.

[35] Ibid., p. 97.

[36] Ibid., p. 97.

## Desirable Teacher Behavior

The teacher's behavior is a reference point for the student and provides a basis for motivation in learning and for assessing progress in learning. If teachers have conflicting attitudes toward the students, such conflicts will influence their behavior.

In his review of research studies on desirable behaviors of the teacher, Gage[37] points to five dimensions of teacher behavior (or characteristics of behavior) as "desirable" on the basis of correlational outcomes or experimental evidence of their relationships with desirable outcomes or aspects of teaching: "warmth, cognitive organization, indirectness, orderliness and ability to solve instructional problems."

Warmth, as the first characteristic of desirable teacher behavior, is described as the tendency of the teacher to be approving, provide emotional support, express a sympathetic attitude and to accept the feelings of pupils. Studies by Cogan[38] suggest that warm teachers score high on the Minnesota Teacher Attitude Inventory, score at the non-authoritarian end of the California F. Scale, express an accepting feeling when their verbal behavior is studied

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[37] N. L. Gage, Desirable Behaviors of Teachers, in M. Usdan and E. F. Bertolaet, Editors, Teachers for the Disadvantaged, Chicago: Follett Publishing Co., 1966, pp. 4-10.

[38] M. L. Cogan, The Behavior of Teachers and the Production Behavior of Their Pupils: L. "Perception" analysis; II. "Trait" analysis, Journal of Experimental Education, 1958, Vol. 27, pp. 89-105, 107-124.

using the Flanders Categories for Interaction Analysis, and have a high degree of respect and sensitivity for the goals, interests and abilities of their students as shown on Ryan's Teacher Characteristics Schedule. Heider,[39] suggests that our tendencies toward consistency and homogeneity in ideas--i.e., toward cognitive balance--push us toward liking someone whom we perceive as liking us. Students realize that the warm teacher likes them and they tend to like him in return. And when they like him, they tend to identify with him, to adopt his values more readily and even to learn subject matter from him more effectively.

Cognitive organization, as the second characteristic of desirable teacher behavior, aims to have students acquire understanding or meaningful learning, rather than mere rote knowledge. The student should possess and exhibit the kind of intellectual grasp of his subject matter that Gage calls cognitive organization.[40] Much of the research on these variables has not, however, been concerned with teacher behavior. Rather, it has dealt with learning materials given to students. It is possible to make inferences about desirable teacher behavior from such research. Although disagreements still exist as to the reasons for the findings and as to the nature of "meaningfulness" and "organization," the broad propositions concerning the value of these factors

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[39]F. Heider, The Psychology of Interpersonal Relations, New York: John Wiley and Sons, Inc., 1958, pp. 174-217.

[40]Gage, op. cit.

in learning are strongly established. Katona,[41] Brownell and Moser,[42] and Ausubel,[43] among many others, have documented the great importance of clear, logical and integrated organizations of ideas to the learning, retention and transfer of these ideas.

According to Ausubel,[44] "the art and science of presenting ideas and information meaningfully and effectively--so that clear, stable and unambiguous meanings emerge and are retained over a long period of time as an organized body of knowledge is the principal function of pedagogy."

Indirectness, as a third desirable teacher behavior, is a realization that it is not necessarily most effective merely to tell a student what you want him to know and understand but that it is sometimes better to let the student become active, seek for himself, participate in the interplay of ideas and make some "provisional tries." Indirectness in teaching represents a willingness to forbear furnishing the pupil with everything he needs to know. The idea of teaching concepts and generalizations by structuring opportunities for students to discover underlying principles for

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[41] E. Katona, Organizing and Memorizing, New York: Columbia University Press, 1940.

[42] W. A. Brownell, and H. E. Moser, Meaningful versus Mechanical Learning: A Study in Grade III Subtraction, Duke University Research Studies in Education, 1949, No. 8.

[43] D. P. Ausubel, The Psychology of Meaningful Verbal Learning: An Introduction to School Learning, New York: Grune E. Stratton, 1963.

[44] Ibid., p. 19.

themselves and by giving less direct guidance is also related to the present concept of indirectness.

Flanders[45] found that indirectness in teachers coincided with greater achievement on the part of their students. Teachers of students who learned less more often employed a pattern of direct influence in such a situation. The study of seventy-five urban junior high school mathematics, English and social studies teachers has the following implications for the classroom teacher:

> Our theory predicts higher achievement and less dependence when goals are clarified by an indirect approach.... An indirect approach stimulated verbal participation by students and discloses to the teacher students' perceptions of the situation.... A direct approach increases student compliance to teacher opinion and direction.

Ausubel[46] concluded from his review of the experiments on learning by discovery that:

> Our theory suggests an indirect approach; most teachers use a direct approach.

Orderliness, as the fourth characteristics of desirable teacher behavior, is the teacher's tendency to be systematic and methodical in his self-management. In part, it consists of teacher effectiveness in classroom management.

Ability to solve instructional problems, as the fifth characteristic of desirable teacher behavior, is defined by Gage[47] as the teacher's ability to solve problems unique to

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[45] N. A. Flanders, Teacher Influence, Pupil Attitudes and Achievement, Washington, D.C.: U.S. Department of Health, Education and Welfare, 1965, p. 116.

[46] Ausubel, op. cit., p. 171.

[47] Gage, op. cit.

his work in a particular subdivision of the profession. Although some are making an effort to refine and extend this approach, results thus far seem adequate to support an altogether plausible proposition that good teachers possess ability to solve technical problems in instruction.

In studies of teaching arithmetic with teachers and non-teachers it was reported:

> ....problems showed some power to differentiate among teachers of varying training and experience...(and) teachers who were rated by supervisors significantly above average in skill in teaching arithmetic had significantly higher mean problem-solving scores than those taught by high-scoring, problem-solving teachers achieved significantly more than pupils taught by low-scoring teachers.[48]

In addition to the factors listed by Gage, commitment to the teaching profession also appears to be an essential attribute desired in teachers. Those described as committed have, through some conscious or subconscious choice, willingly become deeply involved in the educational cause. Regardless of the manner in which the attribute was acquired, the behavioral evidences of the values, attitudes and ideals of the teacher appear to be demonstrations of the degree to which he is committed to teaching.

Wieman[49] expresses as a requirement the practice of personal commitment by which the self is unified and one's

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[48] N. A. Fattu, "Exploration of Interactions Among Instruction, Content, and Aptitude Variables," Journal of Teacher Education, 1963, Vol. 14, pp. 245-246.

[49] H. N. Wieman, Man's Ultimate Commitment, Carbondale, Ill.: Southern Illinois University Press, 1958, pp. 290-291.

resources are most fully brought into action. Personal commitment is defined:

> Commitment to this end first of all assumes the form of a chosen vocation. That means to seek out a kind of work which has a dual fitness. On the one hand it is a kind of work which enables one to exercise all his powers to the maximum in the doing of it. On the other hand it is a kind of work which enables one to give his strength to providing some of the conditions required for the creative transformation of man.

In describing the role of commitment in learning, Hanson[50] recognizes determination and diligence as the components of commitment. The healthy committed learner can be described as having these characteristics:

1. He exhibits a quality of intelligence which takes careful forethought of ends and consequences: He can tell you where he is going.
2. He reveals a high quality of intellectual integrity: He is genuinely oriented to the task.
3. He is anxious to escape the limitations imposed by his own biases and to shift his perspective in order to achieve his purposes.
4. He is anxious to test out his ideas and to act upon them.
5. He is willing to stand up and be counted for that which he thinks to be right and true. He has the courage of his convictions.

Hanson concludes that commitment is more than an ingredient of good learning; it is the core of good character.

## Teacher Social Class Attitude in Relation to the Disadvantaged

How the pattern of behavior of the teacher is determined by his social class affiliation has long been a matter

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[50] J. E. Hanson, "The Role of Commitment in Learning," Educational Leadership, 1955, Vol. 13, pp. 142-146.

of interest to sociologists, social psychologists and scholars concerned with the American education system. The interest in this problem stems from the possibility that teachers who represent a particular social stratum in our society will communicate more effectively with students who come from similar social strata. If social background influences teacher behavior, we can assume that middle-class influences will predominate. Wallen and Travers[51] point out that it is not clear whether teachers reflect the social mores and behavior patterns of the class from which they come or the class with which they are identified by those who see them in the community. At least some evidence indicates that teachers themselves tend to identify with the new social class in which their training and occupation place them. This was illustrated by Becker[52] who found that teachers in Chicago tended to seek transfers from schools attended by pupils from lower-class homes and into schools attended by upper-middle class children. Another possible explanation of this finding is that teachers may seek out students who belong in the same general intelligence grouping as they do. Yet another possibility is that teachers who are upwardly socially mobile wish to teach upper-middle-class children in order to establish themselves more securely at their own level of aspiration.

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[51]N. E. Wallen and R. W. Travers, Analysis and Investigation of Teaching Methods, In N. L. Gage (ed.) Handbook of Research on Teaching, Chicago: Rand McNally and Company, 1963, pp. 443-505.

[52]H. S. Becker, Personal Change in Adult Life, Sociometry, 1964, Vol. 27, pp. 40-53.

Bettelheim[53] stated that:

> ...middle class teachers, despite their desire to be helpful to the culturally deprived child, and despite their best intentions, often get bogged down because they cannot transcend their own value system to meet that of the children.... Should our goal be that these youngsters learn the important things in life; not to steal, not to hit people over the head, to be able to stand some small frustration and still go on with the task? Or should our goal be that they learn, like Lee Harvey Oswald, to read and write, no matter what?

The teacher is the focal point of any program designed to improve the learning experiences of disadvantaged youngsters. His attitudes, and hence his behavior, are conditioned by the many factors which cause his to discriminate against lower class children and prefer not to teach them, according to Passow.[54] He notes that many of these feelings and attitudes of teachers have led to the "self-fulfilling prophecy;" i.e. the students learn little because their teachers, convinced of their inability to learn, make little or no effort to teach.

The discovery or uncovering of those attitudes which mitigate against successful teaching in schools in disadvantaged areas, or the pin-pointing of those attitudes, opinions or beliefs which predispose toward a successful teaching experience in schools in such areas can only serve to assist in developing more effective assignment and placement

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[53]Bruno Bettelheim, "Teaching the Disadvantaged," NEA Journal, September, 1965, p. 8.

[54]H. A. Passow, Education in Depressed Areas, New York: Bureau of Publications, Teachers College, Columbia University, 1963.

procedures which pertain to newly licensed or appointed teachers who are sent to these areas.

Studies by Becker,[55] Herriott,[56] Sexton,[57] Ravitz,[58] and Clark[59] found that the teachers of disadvantaged generally have poorer academic backgrounds, they are less satisfied and they have less desirable attitudes toward their students than teachers of middle class children.

Herriott,[60] for example, studied the influence that the socio-economic status of the student body had upon the attitudes of teachers and principals in 500 schools in forty-one large cities. The study was designed to determine to what extent the social class composition of the pupils in urban schools was associated with characteristics of the staff of these schools. His findings indicate that elementary teachers in ghetto schools are far less satisfied with

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[55]Howard S. Becker, "Schools and Systems of Stratification," Education in Urban Society, ed. by A. H. Halsey, Jean Floud, C. Arnold Anderson, Glencoe, Ill.: The Free Press, 1961, pp. 93-104.

[56]Robert E. Herriott and Nancy Hoyt St. John, Social Class and the Urban School, New York: John Wiley and Sons, 1966.

[57]Patricia Cayo Sexton, Education and Income, Inequalities of Opportunity in Our Public Schools, New York: Viking Press, Inc., 1961.

[58]Mel Ravitz, "The Role of the School in the Urban Setting," Education in Depressed Areas, ed. by A. Harry Passow, New York: Teachers College, Columbia University, 1963, pp. 623.

[59]Kenneth B. Clark, Dark Ghetto, New York: Harper and Row, Publishers, 1965, p. 144.

[60]Herriott and St. John, op. cit., p. 206.

their work and assignment than are their fellow teachers who are assigned to middle class or "silk stocking" schools. He states:

> Teachers in schools of lowest socio-economic status area, of all teachers, are least satisfied with various aspects of their teaching situation.[61]

Not only are they dissatisfied but nearly half of them "want out."

> Moreover, 42 percent of the teachers in these schools of highest socio-economic status aspire to a school "in a better neighborhood."[62]

The prospects for alleviating these conditions seem dim considering a study by James S. Coleman.[63] He found that teachers in training who have the characteristics which might benefit ghetto children tend to prefer to teach in middle class schools.

Davidson and Lang[64] researched the relationship between children's perceptions of their teachers feelings toward them and their own self perceptions. They found a high positive relationship between the children's perceptions of feelings of their teachers and the way in which children perceived themselves.

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[61] Ibid., p. 206.

[62] Ibid., p. 208.

[63] Coleman, op. cit., pp. 25-27.

[64] Helen H. Davidson and Gerhard Lang, "Children's Perceptions of their Teachers' Feelings Toward Them Related to Self-Perception, School Achievement and Behavior," The Self in Growth, Teaching, and Learning, Englewood Cliffs, New Jersey: Prentice-Hall, 1965, pp. 423-439.

It is essential to consider the attitudes of teachers when looking at programs designed for economically deprived children. The following studies are listed as representative examples pointing to the need to look at teacher attitudes:

(1) North and Buchanan[65] felt that teachers had a great deal to do with society's acceptance or rejection of the poverty culture, and therefore felt it important to understand teacher views and attitudes concerning these students.

(2) The University of Michigan Survey Research Center conducted the Michigan Public School Racial Census[66] in 1967 and found the following negative attitudes toward minority groups prevailed:

A. The larger the proportion of Negro pupils in their classes, the more negative are the attitudes of teachers toward their pupils.

B. The greater the proportion of Negro pupils in a class, the lower the teachers' assessment of the ability and academic motivation of their students.

(3) Howard Becker[67] polled sixty teachers from Chicago public schools. He found that these teachers perceived inner-city children as violent, difficult to teach, uncontrollable and morally unacceptable.

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[65]George E. North and O. Lee Buchanan, "Teacher Views of Poverty Area Children," Journal of Educational Research, Vol. 61, No. 2, October 1967, pp. 53-58.

[66]Michigan Department of Education, First Michigan Public School Racial Census, Lansing: Michigan Department of Education, 1967, p. 3.

[67]Howard S. Becker, "Career Patterns of Public School Teachers," Journal of Sociology, Vol. 57, March, 1962, pp. 470-477.

(4) Clark[68] enlisted a group of white students to interview a group of white teachers in the inner-city of New York. Fifty percent of the teachers state that Negroes couldn't be expected to learn because they were inherently inferior in intelligence.

(5) Wilcox[69] makes a strong plea for a teacher who is able to relate to students as persons. Thus the teacher would become an advocate for them in the community. He feels that the ghetto teacher should be a "teacher-friend." The teacher part contains three dimensions; societal representative, institutional representative and skills teacher. He states, "the advocate and personal aspects of the teacher-friend role are crucial in a society which says education is indispensible but rejects (subtly and continuously) lower-class youth."

In direct connection with this, Passow[70] stated that economically depressed students actually learned little because their teachers, convinced of their inability to learn, make little or no effort to teach.

Because of the differences to be found in what people feel the teacher of the inner-city child "ought to be" it is worthwhile to look at the findings of Edwards.[71] He selected

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[68]Clark, op. cit., p. 127.

[69]Preston R. Wilcox, "Teacher Attitudes and Student Achievement," Teachers' College Record, Vol. 68, No. 5, Feb. 1967, pp. 371-379.

[70]Passow, op. cit., p. 191.

[71]T. B. Edwards, "Teachers' Attitudes and Cultural Differentiations," Journal of Experimental Education, Vol. 35, Winter, 1966, pp. 80-92.

only teachers who had been judged effective in working with underprivileged youth. He then administered an attitude inventory to see whether "good" teachers shared some common personality traits. The only trait they shared was the ability to be themselves and to identify with the majority of their pupils.

It is plausible that the rift between teachers and students is partially explained by the "culture-gap hypothesis" of Burton[72] and Davis[73] which maintains that while teachers are virtually completely middle class in occupational status, orientation and values, the pupils they serve are predominately lower class, using the same guidelines. The family orientation, aspiration levels and foci of interest are so different as to make a meeting of the minds as well as an understanding of each other's culture extremely difficult. This hypothesis may reinforce the "horizontal-mobility hypothesis" of Becker.[74] Simply stated, he holds that most teachers eventually transfer away from the lower class or disadvantaged area schools in which their careers typically began. The experience gained in meeting the special needs of these pupils is lost to the school system.

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[72]William H. Burton, "Education and Social Class in the United States," Harvard Educational Review, XXIII, 1953, pp. 243-356.

[73]Allison Davis, Social-Class Influences Upon Learning, Cambridge: Harvard University Press, 1952.

[74]Howard S. Becker, "The Career of the Chicago Public School Teacher," American Journal of Sociology, LVII, 1952, pp. 470-477.

Wingo,[75] aware of the importance of the emotional relationship between teachers and pupils, referred to it as "a crucial factor in the teaching process..."

The rate of development is in substantial part a function of environmental circumstances. The more the child has heard and seen, the more he is interested in hearing and seeing. In addition, the more variation in reality with which he has coped, the greater is his capacity for growth.[76]

Teachers must revise their notions of what the relationship of pupil and teacher must be. "This," said Dr. John Fischer, "is the cutting edge of the whole business. It is like a great machine tool. You have a tremendous structure providing the power. But ultimately it comes down to an infinitesimally thin edge of metal that cuts into another piece of metal. If that contact isn't right, you may just as well forget the machinery."[77] This concept, coupled with much research, lends credence to the thesis that a high percentage of American teachers have a middle class orientation which does not include an understanding or appreciation of the culture of many of the pupils they deal with.

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[75] G. M. Wingo, "Methods of Teaching," Encyclopedia of Educational Research, New York: The MacMillian Co., 1960, p. 849.

[76] J. McV. Hunt, "The Psychological Basis for Using Pre-school Environment as an Antidote for Cultural Deprivation," Quarterly of Behavior and Development, Merrill-Palmer, 1964, pp. 209-248.

[77] Summer Education for Children of Poverty, Report of the National Advisory Council on the Education of Disadvantaged Children, Washington, D.C.: U.S. Government Printing Office, 1966.

## Teacher Attitudes in Relation to Effectiveness

Although the literature dealing with teacher competence or teacher effectiveness dates back to 1891, examinations by Fattu and Castetter[78] of teacher evaluation studies prior to 1930 indicate that they were most usually limited to efforts to identify the ineffective teacher rather than the effective one. Biddle[79] points out that the ineffective teacher was usually defined or identified as the one who was unable to impose "good disciplinary control." Absolute conformity according to the standards of the day and/or the standards imposed by the school board or building principal was mandatory. Howsam[80] claims that even up until very recently these standards were all too often arbitrary, biased and prejudiced.

Domas and Tiedman[81] list nearly 1,000 titles related to research in this area. Morsh and Wilder[82] also list these

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[78]N. A. Fattu, D. D. Castetter, L. S. Standlee, Teacher Effectiveness: An Annotated Bibliography, Bulletin of the Institute of Educational Research, School of Education, Vol. L, No. 1, Bloomington, Indiana: Indiana University Press, 1954.

[79]Bruce J. Biddle and William J. Ellena, Contemporary Research on Teacher Effectiveness, New York: Holt, Rinehart and Winston, 1964, ch. 2 and 8.

[80]Robert B. Howsam, "Teacher Evaluation, Facts and Folklore," National Elementary Principal, Vol. 43, No. 2, Nov. 1963, pp. 6-17.

[81]S. J. Domas and D. Tiedeman, "Teacher Competence; An Annotated Bibliography," Journal of Experimental Education, Vol. 19, 1950, pp. 101-218.

[82]Morsh and E. W. Wilder, Identifying the Effective Instructor: A Review of Quantitative Studies, 1900-1952, Research Bulletin No. AFPTRC-TR34-44, San Antonio, Tex.: USAF Personnel and Training Center, 1954.

studies, many of which are replicative, as well as those which were inadvertent duplications of previously or simultaneously conducted investigations. Domas and Tiedman[83] found that it was only during the 1940's that educators began to pay more attention to the relationship between teacher and pupil. Concern with interpersonal relationship in the classroom had virtually been overlooked in the past.

Washburne and Heil[84] in an effort to support the hypothesis that teachers who deal with the same children all day (elementary school teachers) have a definite and determinable influence upon the intellectual, social and emotional growth of their pupils, came up with clear evidence that the teacher's personality has a marked and measurable effect upon all of these phases of growth and development. There was also evidence of different kinds of interactions and relationships depending upon the type of teacher the children had; the teacher had a measurable effect upon the children's emotional adjustment.

The conclusions in Torrance's[85] study suggest the necessity for teacher education efforts which would make every attempt to develop in student teachers and teachers in service those same attitudes which teachers are expected

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[83]Domas and Tiedman, op. cit.

[84]C. Washburne and L. Heil, "What Characteristics of Teachers Affect Children's Growth?" The School Review, Winter, 1960, pp. 420-428.

[85]E. Paul Torrance, "Teacher Attitude and Pupil Perception," The Journal of Teacher Education, XI, March 1960, pp. 97-102.

to develop in their pupils. His results indicate that although the teacher may try to inculcate the right attitudes verbally, his (or her) real attitudes will show through. Silberman concurs when he states that "...even when the attitude is unconscious, the teacher cannot avoid communicating it to the children in some way or other."[86]

Davis[87] further explores the relationship between particular attitudes held by the teacher and effective learning:

1. All school-learning is stimulated or hindered by the teacher's feelings toward the students. Each must have faith and trust in each other.

2. All school-learning is influenced by the cultural attitudes which the teacher has toward the student, and which the student experiences toward the teacher. In rejecting the student's cultural background, the teacher often appears to reject the student himself as a human being. In return, and as early as the first grade, the student may reject the culture of the school and of the teacher. Both teacher and pupil must learn to respect the ability and position of the other.

Epley[88] reports that students with positive reactions to their teachers are more likely to grow tolerant than those with negative feelings, presumably because the former are more receptive to the attitude of their teacher.

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[86]Charles E. Silberman, Crisis in Black and White, New York: Random House, 1964.

[87]A. Davis, "Changing the Culture of the Disadvantaged Student," in proceedings of the AHEA Workshop, Working with Low Income Families, Washington, D.C.: American Home Economics Association, 1965, pp. 22-23.

[88]D. G. Epley, Adolescent Role Relationships in the Cynamics of Prejudice, Unpublished doctoral dissertation, Michigan State University, 1953.

The student's initial motivation to follow the signs of the teacher is contingent upon his perceiving that the teacher likes and respects him, and has confidence in his ability to learn. This acceptance by the teacher fulfills a need in the student, and he reciprocates by demonstrating to the teacher that he likes and respects the teacher. His means of demonstration is an attempt to learn. When he does learn, the learning itself is rewarding and becomes a motivation to continue to learn. Success in learning becomes a more significant motivational factor than the initial one of pleasing the teacher.

If the teacher's attitudes are negative, or perceived by the student to be negative, the initial motivational steps in learning are thwarted. The child is then handicapped as he proceeds through the grades, deficient in his mastery of the signals (language) of the teacher and deprived of the initial motivational stimulus of the teacher. Performance of children in school becomes progressively worse until, in most cases, they drop out.

Wade summarizes the interaction between teacher and student in the learning process when he refers to the signs the teacher uses.

> With an object present to his mind, the student acts to form his own taught knowledge; and the teacher, through his (selected) signs as logical instruments, is the specificative cause of the student's taught knowledge.[89]

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[89]Francis C. Wade, S. J. "Causality in the Classroom," Modern Schoolman, ed. George P. Klubertanz, S. J., Ann Arbor: Cusing-Mallory, Inc., August 1955, Vol. 28, p. 145.

Wade concludes that if a teacher does not have trust and respect for his students he is not teaching, but rather indoctrinating. For it is mutual trust and respect which unite the mind of the teacher and the taught on a common meeting ground. On the absence of this common meeting ground Wade comments:

> Without such meeting ground teacher and taught do not meet as minds; there is no ground for the student's assent. What is left the student is a pseudoground; that is, the teacher said so. Such a student, assenting on the word of the teacher, is indoctrinated, not taught. True, he gets something; but he gets it by hearing and holds it by memory and becomes a skilled repeater instead of a knowing man. His teacher goes on indoctrinating, whether aware or not, for there is no escape.[90]

However, indoctrination is a very real possibility from teachers with vested interests in subject areas. But even with this in mind it is generally accepted that students benefit more from exposure to teachers with strong educational backgrounds than they do from teachers with weak academic backgrounds.

## Summary

There seems to be unanimity, based on numerous studies and research efforts, in the thought that personal attitudes, opinions and beliefs of teachers can, will and do effect the emotional climate of the classroom. This in turn must have some effect upon the pupil's ability to be taught or to learn.

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[90]Wade, op. cit., p. 146.

From the literature reviewed in this chapter it may be concluded that:

1. Educators have relied on educational techniques inappropriate to the needs of their students, particularly the disadvantaged student.

2. Attitudes of teachers are to blame in part for the poor academic progress of some students, particularly the disadvantaged student.

3. Teachers relate better to students with similar value or attitude orientation.

4. Teachers are mostly middle class or aspire toward the middle class.

5. Colleges are making little or no impact on the attitudes of their students.

6. Attitude change is possible in college.

# CHAPTER III

# THE RESEARCH METHODOLOGY

## Introduction

This chapter contains a delineation of the methodology and procedures used to carry out the study. The student population involved in the study is described along with the location and method used to select it. The Minnesota Teacher Attitude Inventory is outlined as well as the student questionnaire. Finally, the procedure used in the study is explained.

## The Population

The population consisted of undergraduate education students at Michigan State University. From this population, a sample group of 320 students was selected. One hundred seventy eight students, mostly sophomores, were enrolled in 6 of the 24 sections of the beginning professional education course. The remaining 142 students, mostly seniors, were enrolled in 5 of the 11 sections of the final professional education course. The combined total of 11 sections of students included in this sample were randomly selected from 35 sections of the two courses.

## The Instruments

The Minnesota Teacher Attitude Inventory (MTAI) was selected because it is a well-known instrument for measuring teacher attitudes. It is designed to measure those attitudes which will predict the extent to which a given teacher will favorably interact with pupils. The assumption is made that desirable teacher attitudes are necessary for meaningful pupil-teacher relationships and that desirable pupil-teacher relationships are a requisite to worthwhile learning within the classroom.

In the construction of the items for the instrument, five areas of attitudes were sampled.[91]

1. Moral status of children, especially as it concerns their adherence to adult-imposed standards. Example: "Children should be seen and not heard."

2. Discipline and problems of conduct in the classroom and elsewhere, and methods employed in dealing with such problems. Example: "Pupils found writing notes should be severely punished."

3. Principles of child development and behavior related to ability achievement, learning, motivation and personality development. Example: "The boastful child is usually overconfident of his ability."

4. General principles of education in the areas of philosophy, curriculum and administration. Example: "Pupils should be required to do more studying at home."

5. Personal reactions of the teacher, his likes and dislikes, sources of irritation, etc. Example: "Without children life would be dull."

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[91] Cook and others, op. cit., p. 10.

The MTAI assumes that a teacher scoring at the high end of the scale will be able to maintain a harmonious classroom situation. The manual states:

> It is assumed that a teacher ranking at the high end of the scale should be able to maintain a state of harmonious relations with his pupils, characterized by mutual affection and sympathic understanding. The pupils should like the teacher and enjoy school work. The teacher should like the children and enjoy teaching. Situations requiring disciplinary action should rarely occur. The teacher and pupils should work together in a social atmosphere of cooperative endeavor, of intense interest in the work of the day, and with a feeling of security growing from a permissive atmosphere of freedom to think, act and speak one's mind with mutual respect for the feelings, rights, and abilities of others.[92]

On the other hand, a teacher scoring at the opposite extreme, the low end of the scale, is not expected to be able to maintain a harmonious classroom situation.

> At the other extreme of the scale is the teacher who attempts to dominate the classroom. He may be successful and rule with an iron hand, creating an atmosphere of tension, fear and submission; or he may be unsuccessful and become nervous, fearful and distraught in a classroom characterized by frustration, restlessness, inattention, lack of respect, and numerous disciplinary problems. In either case both teacher and pupils dislike school work; there is a feeling of mutual distrust and hostility. Both teacher and pupils attempt to hide their inadequacies from each other. Ridicule, sarcasm, and sharp tempered remarks are common. The teacher tends to think in terms of his status, the correctness of the position he takes on classroom matters and the subject matter to be covered rather than in terms of what the pupil needs, feels, knows, and can do.[93]

Several studies have been conducted by the authors of the MTAI to determine its reliability and validity. The

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[92] Ibid., p. 3.

[93] Ibid.

initial study which focused mainly on item selection, took place in 70 high schools in Ohio and Pennsylvania. Of 756 items constructed for testing, 115 discriminated between "superior" and "inferior" teachers at the 5 percent level and 73 others discriminated between these two groups at the 10 percent level of significance. A subsequent test was made using only those test items that would discriminate at least at the 10 percent level. This form was known as Form X-164. After further refinement and testing 150 items were chosen from Form X-164 and constitute the present Form A of the MTAI.

In South Carolina and Missouri further validity and reliability checks were made with Form A, using essentially the same procedure as had been employed in the Pennsylvania-Ohio study. In general, the results were consistent with those of the earlier study. In addition the scoring method of "right minus wrong" was shown to have slightly higher validity coefficients than alternative methods of scoring. This scoring method has therefore been incorporated in Form A of the MTAI.

As a result of these two studies it is reasonable to conclude that the authors have provided ample evidence that the 150 items on the MTAI discriminate between the expressed attitudes of "superior" and "inferior" teachers.

Other 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 teacher's classroom. In short, the authors contend that the MTAI provides direct measures of those teacher attitudes which predict how well he will get along with pupils in interpersonal relationships and indirect measures of how well satisfied a given teacher will be with teaching as a vocation.[94]

Of the numerous studies and investigations conducted with this instrument several authors have commented on the general limitations of using paper and pencil instruments to measure attitudes. (Callis 1953, Standler and Pophen 1959, Hoyt and Cook 1960, Piccio and Petus 1960, Mitzel, Rabinowitz and Ostreicher 1956, Price 1956, Gage, Stone, Leavitt 1957, Budd and Blakely 1958) Other authors have questioned the use of an empirical scoring technique and suggested that logical or open ended response techniques are preferable. (Gage 1957, Mazzitelli 1957) Finally, some authors have argued that it may be easy to fake responses on the MTAI. (Colemen 1954, Rabinowitz 1954, Sorenson 1956, Sheldon and Sorenson 1957, Sorenson and Sheldon 1958, Sheldon 1959, Polmantier and Ferguson 1960) However, several other authors have provided additional, favorable evidence regarding the reliability and validity of the MTAI (Hardy 1955, Cook, Joyt and Eibaas 1956, Day 1956, Lambert 1956, Stein 1957, Day 1959, Joyt and Cook 1959, Scott and Brinkly 1960).

In general, research investigating the merits of the MTAI seems to indicate that it shares many of the inherent

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[94] Ibid.

weaknesses of paper and pencil measures of attitude, but that it compares favorably with other instruments of this type.

A questionnaire was also prepared by the author using the guidelines suggested by Backstrom and Hursh. This questionnaire explored those areas of demographic information which were considered necessary to obtain data relevant to the objectives of the study.[95] (see Appendix D) The questionnaire was reviewed by a consultant from Michigan State University's evaluation services.

The questionnaire was revised along the guidelines suggested by the consultant and contained a cover letter explaining the problem and asking full cooperation of those being studied. This cover letter (see Appendix A) accompanying each instrument and questionnaire was also designed to help each respondent realize that there was no intent to coerce or identify individual respondents participating in this study.

## The Procedure

Form A of the Minnesota Teacher Attitude Inventory (see Appendix B and C) was used as the measure of the students' attitudes toward children. The MTAI was administered to two distinct groups of people. One group was those students taking their first professional education course

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[95]Charles H. Backstrom and Gerald P. Hursh, Survey Research, Northwestern University Press, 1964, Chapter III.

(N=178) and the other group was composed of those students completing their final professional education course (N=142). The inventory was administered by the instructor of each class section according to the instructions given on the inventory. Assurance was given each individual participating in the study that the results of the study would in no way affect his status in the course. Further assurance was given the participating students that there would be no attempt to identify the individual completing the inventory. The instructions also indicated that there is considerable disagreement as to what teacher-pupil relationships should be; therefore, there are no "right" or "wrong" answers per se to the inventory.

Three hundred and twenty packets consisting of the MTAI and the questionnaire were distributed to eleven different instructors. Of this number 297 were returned resulting in a return rate of 92.8 percent. One hundred seventy eight packets were distributed to students taking their first education course and 175 packets were returned. The remaining 142 packets were handed out to those students finishing their last education course and only 119 were returned. Upon analysis it was discovered that most of this low return rate for the final course was due to one section where 27 packets were distributed to students but only 7 were returned. Thus, it was felt that those 7 students returning the inventory and questionnaire in this section formed a biased group. Therefore the whole section

was deleted from the study. The withdrawal of this section from the study results in 115 packets being handed out and 112 being returned. In addition 4 more packets were discarded from each group because they were incomplete. The resulting final tally was 279 returned and scored and 6 unaccounted for, for a total of 285 handed out, resulting in a return rate of 97.9 percent.

# CHAPTER IV

## ANALYSIS OF DATA

The purpose of this investigation was to explore teacher candidate's expressed attitudes toward children by means of the Minnesota Teacher Attitude Inventory. In addition a questionnaire was administered providing demographic data.

The MTAI sheets were machine scored according to the "rights" and "wrongs" keys provided with the inventory. The keys provided do not intend to indicate literally right and wrong answers on the inventory, but rather negative and positive tendencies in attitude. The terms "right" and "wrong" are used merely for convenience.

Scoring possibilities on the MTAI range from -150 to +150 points. A negative score indicates a negative attitude toward children while a positive score indicates a positive attitude toward children.

Throughout Chapter IV the notation Group I (Beg.) will refer to that group of teacher candidates starting their first professional education course. Group II (Fin.) is the notation which refers to that group of teacher candidates finishing their professional education sequence.

The independent variables in this study include: extent of professional training (2) levels; sex (2) levels; grade level preference (4) levels; subject area competency (4) levels; type of school (K-8 and K-12) in which educated (3) levels; number of siblings (7) levels; school location preference (4) levels; racial composition of school preference (9) levels. Extent of professional training (Beg. vs. Fin.) is the most crucial of these variables. It is therefore considered in every analysis in order to determine whether or not there is an interaction between this factor and any of the demographic variables. An individual's score on the MTAI serves as the dependent variable in every analysis reported in this chapter.

Since Question I and Question III are so interrelated they will be discussed in combination, rather than treated as separate entities. This is done to avoid any confusion.

Question I.

What are the expressed attitudes toward children of undergraduate teacher candidates at the time they begin their professional education courses and as they finish the professional sequence?

Question III.

What differences, if any, exist between the expressed attitudes toward children of the group starting their professional educational courses and the group finishing their professional educational courses?

Upon return of the instrument and questionnaire the author tabulated the data in terms of the scoring procedures for the MTAI and the categories within the questionnaire.

After the determination of raw scores, the mean scores and standard deviations of both groups were computed. These means and standard deviations are depicted in Table 4.1 below.

TABLE 4.1

MEAN AND STANDARD DEVIATIONS FOR GROUP EFFECT

| | N | $\overline{X}$ | S.D. |
|---|---|---|---|
| Group I (Beg.) | 171 | 38.12 | ± 29.11 |
| Group II (Fin.) | 108 | 56.24 | ± 28.36 |
| Total | 279 | 45.13 | ± 30.10 |

Legend: N = Number of people within that category
$\overline{X}$ = Mean
S.D. = Standard Deviation

Examination of Table 4.1 reveals that Group I (Beg.) (undergraduate teacher candidates taking their first professional education course) had a mean of 38.12 indicating a somewhat favorable attitude toward children. Group II (Fin.) (undergraduate teacher candidates finishing their last professional education course) had a mean of 56.24 indicating a more favorable attitude toward children than was expressed by Group I.

A one way analysis of variance test was therefore completed to determine whether or not the difference between these two means was statistically significant (Question III above). The results of this analysis are depicted in

Table 4.2 An examination of Table 4.2 reveals that the means are in fact significantly different (P <.0005).

TABLE 4.2

(ONE-WAY) ANOVA TABLE FOR GROUP EFFECT

| Source | Sum Square | D.F. | Mean Square | F.Ratio | Prob. |
|---|---|---|---|---|---|
| Group Effect | 21,742.69 | 1 | 21,742.69 | 26.1737 | 0.0005* |
| Error | 230,105.40 | 277 | 830.71 | | |
| Total | 251,848.09 | 278 | | | |

Legend: ANOVA = Analysis of variance
D.F. = Degrees of freedom
Prob. = Probability
* = Statistically significant

Question II.

What interrelations exist between the demographic data as defined by this study and the expressed attitudes toward children of the two groups sampled?

The results of the demographic data collected on the questionnaire were tested by the statistical technique of Multivariate Analyses of Variance. If the analyses of this data yielded an F ratio which would occur by change less than 5 times in 100 (P <.05) it was considered statistically significant. Those variables yielding differences of this magnitude were subjected to a further statistical comparison called the Scheffe' Post Hoc Test. This test was computed to determine which of the means for the various levels were significantly different.

The results of this analyses for the demographic data in sub-questions (1-8) has been organized into tables

of mean and cell frequency; ANOVA Tables, and where meaningful, a Scheffe' Post Hoc comparison.

It should be noted that the calculations in sub-questions (1-8) are based on the MTAI score plus 100. This was done in order to facilitate calculations and avoid working with negative numbers. This is not evident in the tables of mean and cell frequency. However, it is evident in the ANOVA and Post Hoc comparisons.

Sub-Question 1.

Is there any relationship between one's sex and his expressed attitudes toward children?

The analyses of the data with respect to sex is depicted in Table 4.3, which contains cell frequencies and means. A 2 x 2, fixed-effects, analysis of variance test was calculated for this variable (male vs. female) with scores on the MTAI serving as the dependent variable. These results are depicted in Table 4.4.

TABLE 4.3

MEAN AND CELL FREQUENCY TABLE FOR SEX

| | Female $\bar{X}_1$ (N) | Male $\bar{X}_2$ (N) | Total Av. Mean (N) |
|---|---|---|---|
| Group I (Beg.) | 42.53 (110) | 30.16 (61) | 38.12 (171) |
| Group II (Fin.) | 58.35 (80) | 50.21 (28) | 56.24 (108) |
| Total | 49.19 (190) | 36.47 (89) | 45.13 (279) |

Legend: $\bar{X}$ = Mean
N = Number of people within the category

TABLE 4.4

ANOVA TABLE FOR SEX

| Source | Sum Square | D.F. | Mean Square | F.Ratio | Prob. |
|---|---|---|---|---|---|
| Group | 21,742.69 | 1 | 21,742.69 | 26.8447 | 0.0001** |
| Sex | 7,128.20 | 1 | 7,128.20 | 8.8008 | 0.0033* |
| Group * Sex | 242.51 | 1 | 242.51 | 0.2994 | 0.5847 |
| Error | 222,735.98 | 275 | 809.94 | | |
| Totals | 251,849.38 | 278 | | | |

Legend: ANOVA = Analysis of variance
D.F. = Degrees of freedom
Prob. = Probability
Group * Sex = Interaction between cells being tested
* = Statistically significant
** = The F.ratio for group effect varies depending on the sub-question being analized. This is a result of a changing (N) due to incomplete data. However, it always remains significant ($P < .0005$).

Examination of Table 4.3 reveals that the lowest mean MTAI score was for males in Group I (Beg.) while the highest mean MTAI score was for females in Group II (Fin.). Examination of Table 4.4 reveals that the overall difference between females and males was statistically significant ($P < .003$). It is therefore reasonable to conclude that females have more positive attitudes toward children than males.

Sub-Question 2.

Is there any relationship between the number of siblings in one's family and his expressed attitudes toward children?

The analyses of the data, with respect to number of siblings is presented in two tables. Table 4.5 contains cell frequencies and means. Table 4.6 presents the results of a 2 x 7, fixed-effects, analysis of variance test which was calculated for this data.

TABLE 4.5

MEAN AND CELL FREQUENCY TABLE FOR NUMBER OF SIBLINGS

| | Number of Siblings | | | | | | | Total |
|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7+ | Av. Mean |
| | $\bar{X}_1$ (N) | $\bar{X}_2$ (N) | $\bar{X}_3$ (N) | $\bar{X}_4$ (N) | $\bar{X}_5$ (N) | $\bar{X}_6$ (N) | $\bar{X}_7$ (N) | (N) |
| Group I (Beg.) | 38.00 (9) | 40.71 (45) | 31.98 (57) | 43.70 (27) | 46.07 (14) | 33.57 (7) | 38.42 (12) | 38.12 (171) |
| Group II (Fin.) | 61.40 (5) | 64.83 (18) | 47.45 (33) | 55.59 (32) | 64.13 (8) | 56.33 (6) | 70.00 (5) | 56.26 (107) |
| Totals | 46.36 (14) | 47.60 (63) | 37.65 (90) | 50.15 (59) | 52.64 (22) | 44.07 (13) | 47.71 (17) | 45.10 (278) |

Legend: $\bar{X}$ = Mean
N = Number of people within that category

TABLE 4.6

ANOVA TABLE FOR NUMBER OF SIBLINGS

| Sources | Sum Square | D.F. | Mean Square | F.Ratio | Prob. |
|---|---|---|---|---|---|
| Group | 21,668.85 | 1 | 21,668.85 | 25.9659 | 0.0001 |
| Siblings | 7,813.50 | 6 | 1,302.25 | 1.5605 | 0.1590 |
| Group * Sibls. | 1,975.62 | 6 | 329.27 | 0.3946 | 0.8823 |
| Error | 220,304.46 | 264 | 834.49 | | |
| Total | 251,762.43 | 273 | | | |

Legend: ANOVA = Analysis of variance Prob. = Probability
D.F. = Degrees of freedom
Group * Sibls. = Interaction between cell being tested

Although mean MTAI scores vary from a low of (31.98) for individuals with two siblings to a high of (70.00) for individuals with six or more siblings, the statistical test of these differences was not significant ($P < .159$). Therefore, the results of this study suggest that family size does not influence one's expressed attitudes toward children.

Sub-Question 3.

Is there any relationship between one's teaching area competence and his expressed attitudes toward children?

The analyses of the data with respect to one's teaching area competency is presented in three tables. Table 4.7 contains the cell frequency and means. Table 4.8 presents the results of a 2 x 10, fixed-effects, analysis of variance test for this data. Due to the statistically significant results reported in Table 4.8, the Scheffe' Post Hoc test was computed. The results of this comparison are depicted in Table 4.9.

Examination of Table 4.7 reveals that industrial arts has both the highest and lowest within level means, (82.00) and (15.33) for beginning and finishing groups respectively. This is perhaps explained by the low number of individuals (N=5) for industrial arts.

The subject area of physical education has the lowest overall mean (25.23). Of equal interest is that 5 out of the top 6 means are in subject areas related to communicative expression: Fine Arts; English; Exceptional Children; Social Sciences; Communicative Arts.

TABLE 4.7

MEAN AND CELL FREQUENCY FOR SUBJECT COMPETENCY

| | $\overline{X}_1$ (N) | $\overline{X}_2$ (N) | $\overline{X}_3$ (N) | $\overline{X}_4$ (N) | $\overline{X}_5$ (N) | $\overline{X}_6$ (N) | $\overline{X}_7$ (N) | $\overline{X}_8$ (N) | $\overline{X}_9$ (N) | $\overline{X}_{10}$ (N) | Total Av.Mean (N) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Group I (Beg.) | 29.81 (16) | 26.29 (14) | 44.00 (23) | 28.11 (9) | 38.82 (11) | 82.00 (2) | 14.11 (9) | 42.94 (17) | 42.42 (48) | 47.47 (17) | 38.56 (166) |
| Group II (Fin.) | 60.36 (14) | 62.06 (17) | 58.40 (10) | 43.67 (6) | 67.40 (10) | 15.33 (3) | 37.75 (8) | 58.50 (10) | 54.20 (20) | 61.50 (8) | 55.93 (106) |
| Totals | 44.07 (30) | 45.91 (31) | 48.36 (33) | 34.33 (15) | 52.43 (21) | 42.00 (5) | 25.23 (17) | 48.70 (27) | 45.88 (68) | 51.96 (25) | 45.33 (272) |

Legend: $\overline{X}$ = Mean
N = Number of people within the category
1 = Mathematics
2 = Science
3 = English
4 = Home Economics
5 = Exceptional Children
6 = Industrial Arts
7 = Physical Education
8 = Communication Arts
9 = Social Sciences
10 = Fine Arts

TABLE 4.8

ANOVA TABLE FOR SUBJECT COMPETENCY

| Sources | Sum Square | D.F. | Mean Square | F.Ratio | Prob. |
|---|---|---|---|---|---|
| Group | 19,526.79 | 1 | 19,526.79 | 24.9016 | 0.0001 |
| Competency | 14,030.37 | 9 | 1,558.93 | 1.9880 | 0.0412 |
| Group * Competency | 13,665.33 | 9 | 1,518.37 | 1.9363 | 0.0475 |
| Error | 197,609.03 | 252 | 784.16 | | |
| Total | 244,031.52 | 271 | | | |

Legend: ANOVA = Analysis of variance Prob. = Probability
D.F. = Degree of freedom
Group * Competency = Interaction between cells being tested
* = Statistically significant

TABLE 4.9

SCHEFFE' POST HOC COMPARISON FOR SUBJECT COMPETENCY

| $\hat{\Psi}$ Contrast | $\hat{\Psi}$ | $S\sqrt{Var(\hat{\Psi})}$ | $\left\lvert\hat{\Psi}-S\sqrt{Var(\hat{\Psi})}\right\rvert < \Psi < \left\lvert\hat{\Psi}+S\sqrt{Var(\hat{\Psi})}\right\rvert$ |
|---|---|---|---|
| $\hat{\Psi} = \bar{X}_5 - \bar{X}_7$ | 27.20 | 37.58 | -10.38 < Ψ < 64.78 |
| $\hat{\Psi} = \bar{X}_9 - \bar{X}_7$ | 20.65 | 31.23 | -10.58 < Ψ < 51.88 |
| $\hat{\Psi} = (\bar{X}_5+\bar{X}_9)-2\bar{X}_7$ | 47.85 | 62.84 | -14.99 < Ψ <110.69 |
| $\hat{\Psi} = (\bar{X}_5+\bar{X}_{10})-2\bar{X}_7$ | 53.93 | 65.46 | -11.53 < Ψ <119.39 |
| $\hat{\Psi} = (\bar{X}_5+2\bar{X}_{10})-3\bar{X}_7$ | 80.66 | 98.89 | -18.23 < Ψ <179.55 |
| $\hat{\Psi} = (\bar{X}_5+\bar{X}_8+\bar{X}_{10})-3\bar{X}_7$ | 77.40 | 93.16 | -15.76 < Ψ <170.56 |
| $\hat{\Psi} = (\bar{X}_5+\bar{X}_9+\bar{X}_{10})-3\bar{X}_7$ | 74.58 | 91.55 | -16.97 < Ψ <166.13 |

Legend: Means with various subscrips (example $\bar{X}_7$) refers to the particular mean of that subject competency.

[96] In order to be statistically significant ($P < .05$), the interval $\left\lvert\hat{\Psi} - S\sqrt{Var(\hat{\Psi})}\right\rvert < \Psi < \left\lvert\hat{\Psi} + S\sqrt{Var(\hat{\Psi})}\right\rvert$ cannot include the value of zero (0).

Reviewing Table 4.8 reveals that differences in mean MTAI scores across subject matter competencies are statistically significant ($P < .041$). The interaction between level of professional training and subject matter competence is also statistically significant ($P < .048$).

A Scheffe' test was therefore computed to determine which levels of subject matter competence yielded mean MTAI scores which were significantly different. As Table 4.9 reveals, the largest absolute difference ($\overline{X}_5$ and $\overline{X}_7$) was not statistically significant. Since the N's have some effect in a Scheffe' comparison, further tests were computed contrasting the mean for social science majors (N = 68) with that for physical education majors (N = 17). This difference also proved to be non-significant.

In short, the results of this study seem to suggest that subject matter competency has some influence on expressed attitudes toward children. But it is not reasonable to assume that majors in a given subject matter field, such as social science, have a more favorable attitude toward children than majors in some other field, such as physical education.

Table 4.8 reports that the interaction between level of professional training and subject competency is statistically significant ($P < .048$). An analysis of Table 4.7 to determine the source of this interaction reveals that all scores in Group II (Fin.) are higher than the corresponding scores for Group I (Beg.) with one exception. That exception is under column 6, referring to industrial arts subject competency. In this area the mean for Group I (Beg.) is

considerably higher than the mean for Group II (Fin.) This difference in mean score for industrial arts is approximately two standard deviations. Further examination points out that the industrial arts mean in Group I (Beg.) is at least one standard deviation above all other means in Group I (Beg.). Inversely, the mean for industrial arts in Group II (Fin.) is at least 2/3's of one standard deviation below all other means for Group II (Fin.). This then accounts for the significant interaction reported in Table 4.8. It should be noted however, that only 5 individuals in the sample are industrial arts majors. This small sample may therefore limit the generality of any statements regarding an interaction between level of professional training and subject competency.

Sub-Question 4.

Is there any relationship between the type of community one was raised in and his expressed attitudes toward children?

The data related to this question was collected in two parts, divided on the basis of birth to ten years of age, and birth to college attendance. The analyses of the data with respect to type of community raised (0-10 yrs. and 0-college) is reported in Tables 4.10 and 4.10A. Both tables contain cell frequency and means. Table 4.11 and 4.11A represent a 2 x 4, fixed-effects, analysis of variance test of this data. Due to the statistical significance results reported in Table 4.11A a Scheffe' comparison was computed. These comparisons are reported in Table 4.12.

TABLE 4.10

MEAN AND CELL FREQUENCY--TYPE COMMUNITY
RAISED UNTIL 10 YEARS OLD

| | Suburban $\bar{X}_1$ (N) | Inner-City $\bar{X}_2$ (N) | Urban $\bar{X}_3$ (N) | Rural $\bar{X}_4$ (N) | Total Av.Mean (N) |
|---|---|---|---|---|---|
| Group I (Beg.) | 38.83 (80) | 06.50 (4) | 37.69 (49) | 40.50 (38) | 38.12 (171) |
| Group II (Fin.) | 57.10 (50) | 54.50 (2) | 59.85 (27) | 51.52 (29) | 56.24 (108) |
| Totals | 45.86 (130) | 22.50 (6) | 45.56 (76) | 45.27 (67) | 45.13 (279) |

TABLE 4.10A

TYPE COMMUNITY RAISED UNTIL COLLEGE

| | Suburban $\bar{X}_1$ (N) | Inner-City $\bar{X}_2$ (N) | Urban $\bar{X}_3$ (N) | Rural $\bar{X}_4$ (N) | Total Av.Mean (N) |
|---|---|---|---|---|---|
| Group I (Beg.) | 38.17 (92) | -10.67 (3) | 40.22 (36) | 39.75 (40) | 38.11 (171) |
| Group II (Fin.) | 56.97 (60) | 37.00 (2) | 62.42 (19) | 51.70 (27) | 56.24 (108) |
| Totals | 45.59 (152) | 08.40 (5) | 47.89 (55) | 44.57 (67) | 45.13 (279) |

Legend: $\bar{X}$ = Mean
N = Number of people within that category

TABLE 4.11

ANOVA TABLE FOR TYPE COMMUNITY
RAISED UNTIL 10 YEARS OLD

| Sources | Sum Square | D.F. | Mean Square | F.Ratio | Prob. |
|---|---|---|---|---|---|
| Group | 21,742.69 | 1 | 21,742.69 | 26.2112 | 0.0001 |
| CT - 10 | 3,000.57 | 3 | 1,000.19 | 1.2057 | 0.3081 |
| Group * CT-10 | 2,304.72 | 3 | 768.24 | 0.9261 | 0.4286 |
| Error | 224,804.74 | 271 | 829.54 | | |
| Totals | 251,852.72 | 278 | | | |

TABLE 4.11A

ANOVA TABLE FOR TYPE COMMUNITY
RAISED UNTIL COLLEGE

| Sources | Sum Square | D.F. | Mean Square | F.Ratio | Prob. |
|---|---|---|---|---|---|
| Group | 21,742.69 | 1 | 21,742.69 | 26.7047 | 0.0001 |
| CT - Col. | 7,577.64 | 3 | 2,525.88 | 3.1023 | 0.0272* |
| Group * CT-Col. | 483.35 | 3 | 627.32 | 0.7705 | 0.5114 |
| Error | 220,644.41 | 271 | 814.19 | | |
| Totals | 250,448.09 | 278 | | | |

Legend: ANOVA = Analysis of variance
D.F. = Degrees of freedom
Prob. = Probability
Group * CT-10 and Group *CT-Col. = Interaction between the cells tested
CT - 10 = Community raised until 10 years old
CT - Col. = Community raised until college
* = Statistically significant

TABLE 4.12

SCHEFFE' POST HOC COMPARISON FOR COMMUNITY RAISED UNTIL COLLEGE

| $\hat{\Psi}$ Contrast | $\hat{\Psi}$ | $S\sqrt{Var(\hat{\Psi})}$ | $\hat{\Psi}-S\sqrt{Var(\hat{\Psi})} < \Psi < \hat{\Psi}+S\sqrt{Var(\hat{\Psi})}$ |
|---|---|---|---|
| $\hat{\Psi} = \bar{X}_3 - \bar{X}_2$ | 39.49 | 37.22 | $2.27 < \Psi < 76.71$* |
| $\hat{\Psi} = \bar{X}_1 - \bar{X}_2$ | 37.19 | 36.22 | $0.97 < \Psi < 73.41$* |
| $\hat{\Psi} = \bar{X}_4 - \bar{X}_2$ | 36.17 | 36.83 | $-0.66 < \Psi < 73.00$ |
| $\hat{\Psi} = (\bar{X}_1+\bar{X}_3+\bar{X}_4)-3\bar{X}_2$ | 112.85 | 108.09 | $4.76 < \Psi < 220.94$* |

Legend: $\bar{X}_1$ = Mean for suburban

$\bar{X}_2$ = Mean for inner-city

$\bar{X}_3$ = Mean for urban

$\bar{X}_4$ = Mean for rural

* = Significant Scheffe' comparison

Both Tables (4.10 and 4.10A) reveal that the means of those individuals with suburban, rural or urban backgrounds are nearly equal. However, individuals from the inner-city have less favorable attitudes than individuals from any of the other three areas (suburban, rural and urban).

Tables 4.11 and 4.11A reveal that whereas the difference among individuals raised in various communities until 10 years of age are not statistically significant ($P < .308$), the corresponding difference among individuals raised in various communities until college is statistically significant ($P < .027$). The Scheffe' Post Hoc comparison was therefore computed for the birth until college data. As examination of Table 4.12 reveals the mean MTAI score for individuals raised in the inner-city is significantly lower than the corresponding means for individuals raised in suburban and urban communities.

Sub-Question 5.

Is there any relationship between the type of school in which one was educated and his expressed attitudes toward children?

The data related to this question was collected in two parts divided on the basis of kindergarten to the eighth grade (K-8) and kindergarten to the twelfth grade (K-12). Table 4.13 presents the means and cell frequencies for individuals from three different types of schools. Table 4.14 contains a 2 x 3, fixed-effects, analysis of variance test for this data.

TABLE 4.13

MEAN AND CELL FREQUENCY--TYPE OF SCHOOL EDUCATED (K-8)

| | Public $\bar{X}_1$ (N) | Parochial $\bar{X}_2$ (N) | Private $\bar{X}_3$ (N) | Total Av.Mean (N) |
|---|---|---|---|---|
| Group I (Beg.) | 37.77 (132) | 41.71 (34) | 22.80 (5) | 38.12 (171) |
| Group II (Fin.) | 56.40 (90) | 54.76 (17) | 67.00 (1) | 56.24 (108) |
| Total | 45.32 (222) | 46.06 (51) | 30.17 (6) | 45.13 (279) |

TABLE 4.13A

TYPE OF SCHOOL EDUCATED (K-12)

| | Public $\bar{X}_1$ (N) | Parochial $\bar{X}_2$ (N) | Total Av.Mean (N) |
|---|---|---|---|
| Group I (Beg.) | 38.97 (137) | 36.65 (31) | 38.54 (168) |
| Group II (Fin.) | 56.29 (98) | 55.80 (10) | 56.24 (108) |
| Total | 46.19 (235) | 41.32 (41) | 45.47 (276) |

Legend: $\bar{X}$ = Mean
N = Number of people within that category

Private school attendance was deleted from statistical consideration in Table 4.13A due to sample population sparsity.

TABLE 4.14

ANOVA TABLE FOR TYPE OF SCHOOL EDUCATED (K-8)

| Sources | Sum Square | D.F. | Mean Square | F. Ratio | Prob. |
|---|---|---|---|---|---|
| Group | 21,742.69 | 1 | 21,742.69 | 25.9971 | 0.0001 |
| T.Scho.-8 | 911.92 | 2 | 455.96 | 0.5452 | 0.5804 |
| Group * TS-8 | 869.78 | 2 | 434.89 | 0.5200 | 0.5952 |
| Error | 228,318.09 | 273 | 836.33 | | |
| Totals | 251,842.48 | 278 | | | |

TABLE 4.14A

ANOVA TABLE FOR TYPE OF SCHOOL EDUCATED (K-12)

| Sources | Sum Square | D.F. | Mean Square | F. Ratio | Prob. |
|---|---|---|---|---|---|
| Group | 20,593.26 | 1 | 20,593.26 | 24.7817 | 0.0001 |
| T.Scho.-12 | 116.26 | 1 | 116.26 | 0.1399 | 0.7087 |
| Group * TS-12 | 22.60 | 1 | 22.60 | 0.0272 | 0.8692 |
| Error | 226,022.10 | 272 | 830.96 | | |
| Totals | 246,754.22 | 275 | | | |

Legend: ANOVA = Analysis of variance
D.F. = Degrees of freedom
Prob. = Probability
Group * TS-8 and Group * TS-12 = Interaction between cells being tested.
T.Sch.-8 = Type of School educated (K-8)
T.Sch.-12 = Type of School educated (K-12)

Examination of Table 4.13 reveals that expressed attitudes toward children among individuals attending private schools seem to be somewhat less favorable than the corresponding attitudes among individuals attending public and parochial schools. However, there are only 6 individuals in this sample who attended a private school from kindergarten through the 8th grade. Of this group, only one attended a private school through the 12th grade.

It is therefore not surprising that differences in mean MTAI scores among individuals from different types of schools are not statistically signficant ($P < .580$). In short, the type of school in which one is educated appears to have little influence on one's expressed attitudes toward children.

Sub-Question 6.

Is there any relationship between one's teaching preference (grade level) and one's expressed attitudes toward children?

The analyses of the data with respect to grade level preference is reported in two tables. Table 4.15 contains cell frequencies and means. Table 4.16 represents a 2 x 4, fixed-effects, analysis of variance test of this data.

An examination of Table 4.15 reveals that those individuals preparing to teach in grade level (4-6) have the lowest mean MTAI scores, while those individuals preferring to teach (K-3) children have the highest mean MTAI scores. Thus, within the elementary school one can find the highest and the lowest means for expressed attitudes toward children.

TABLE 4.15

MEAN AND CELL FREQUENCY--
GRADE LEVEL PREFERENCE

| | K-3 $\overline{X}_1$ (N) | 4-6 $\overline{X}_2$ (N) | Jr.High $\overline{X}_3$ (N) | H.S. $\overline{X}_4$ (N) | Total Av.Mean (N) |
|---|---|---|---|---|---|
| Group I (Beg.) | 41.12 (34) | 31.14 (21) | 33.54 (11) | 39.31 (104) | 38.29 (170) |
| Group II | 67.37 (32) | 48.62 (21) | 49.23 (13) | 53.61 (41) | 56.21 (107) |
| Totals | 53.85 (66) | 39.88 (42) | 42.04 (24) | 43.35 (145) | 45.21 (277) |

Legend: $\overline{X}$ = Mean
N = Number of people within that category

TABLE 4.16

ANOVA TABLE FOR GRADE LEVEL PREFERENCE

| Sources | Sum Square | D.F. | Mean Square | R.Ratio | Prob. |
|---|---|---|---|---|---|
| Group | 21,103.50 | 1 | 21,103.50 | 25.6365 | 0.0001 |
| G.L.Pref. | 6,249.54 | 3 | 2,083.18 | 2.5307 | 0.0576 |
| Group*G.L.Pref. | 1,559.88 | 3 | 519.96 | 0.6317 | 0.5952 |
| Error | 221,427.35 | 269 | 823.15 | | |
| Totals | 250,340.27 | 276 | | | |

Legend: ANOVA = Analysis of variance
D.F. = Degree of freedom
Prob. = Probability
Group*G.L.Pref. = Interaction between the cells being tested
G.L.Pref. = Grade level preference

Results reported in Table 4.16 indicate that the differences between the mean MTAI scores across grade preference levels was not statistically significant ($P < .058$). However, it is very close to being statistically significant and may present an interesting paradox at the elementary level.

Sub-Question 7.

Is there any relationship between one's teaching preference (school location) and one's expressed attitudes toward children?

The analyses of data with respect to school location preference is depicted in three tables. Table 4.17 contains the cell frequency and means, while Table 4.18 presents a 2 x 4, fixed-effects, analysis of variance test for the data. Since Table 4.18 reveals a statistical significance for school location preference a Scheffe' Post Hoc comparison was computed. The data for the Scheffe' comparison is depicted in Table 4.19.

TABLE 4.17

MEAN AND CELL FREQUENCY--SCHOOL LOCATION PREFERENCE

| | Suburban $\bar{X}_1$ (N) | Inner-City $\bar{X}_2$ (N) | Urban $\bar{X}_3$ (N) | Rural $\bar{X}_4$ (N) | Total Av.Mean (N) |
|---|---|---|---|---|---|
| Group I (Beg.) | 32.87 (92) | 45.70 (23) | 43.11 (38) | 43.50 (16) | 37.92 (169) |
| Group II (Fin.) | 55.32 (60) | 74.33 (9) | 58.67 (21) | 44.31 (16) | 55.94 (106) |
| Total | 41.73 (152) | 53.75 (32) | 48.65 (59) | 43.91 (32) | 44.87 (275) |

Legend: $\bar{X}$ = Mean
N = Number of people within the category

TABLE 4.18

ANOVA TABLE FOR SCHOOL LOCATION PREFERENCE

| Sources | Sum Square | D.F. | Mean Square | F.Ratio | Prob. |
|---|---|---|---|---|---|
| Group | 21,131.48 | 1 | 21,131.48 | 25.9381 | 0.0001 |
| S.L.Pref. | 6,806.31 | 3 | 2,268.77 | 2.7848 | 0.0413* |
| Groups*S.L.Pref. | 3,838.26 | 3 | 1,279.42 | 1.5704 | 0.1969 |
| Error | 217,524.53 | 267 | 814.70 | | |
| Totals | 249,300.58 | 274 | | | |

Legend: ANOVA = Analysis of variance
D.F. = Degrees of freedom Prob. = Probability
S.L.Pref. = School location preference
Group*S.L.Pref. = Interaction between the cells being tested
* - Statistically significant

TABLE 4.19

SCHEFFE' POST HOC COMPARISON FOR SCHOOL LOCATION

| $\hat{\Psi}$ Contrast | $\hat{\Psi}$ | $S\sqrt{Var(\hat{\Psi})}$ | $\left[\hat{\Psi}-S\sqrt{Var(\hat{\Psi})}\right] < \Psi < \left[\hat{\Psi}+S\sqrt{Var(\hat{\Psi})}\right]$ |
|---|---|---|---|
| $\hat{\Psi} = \bar{X}_2 - \bar{X}_1$ | 12.02 | 15.50 | $-3.46 < \Psi < 27.50$ |
| $\hat{\Psi} = \bar{X}_2 - \bar{X}_4$ | 9.84 | 19.91 | $-10.07 < \Psi < 29.75$ |
| $\hat{\Psi} = \bar{X}_2 - \bar{X}_3$ | 5.10 | 17.98 | $-12.38 < \Psi < 22.58$ |
| $\hat{\Psi} = 2\bar{X}_2-(\bar{X}_1+\bar{X}_4)$ | 21.86 | 32.17 | $-10.31 < \Psi < 54.03$ |
| $\hat{\Psi} = (\bar{X}_2+\bar{X}_3)-2\bar{X}_1$ | 18.94 | 21.76 | $-2.82 < \Psi < 40.70$ |
| $\hat{\Psi} = (\bar{X}_2+\bar{X}_3)-(\bar{X}_1+\bar{X}_4)$ | 16.76 | 23.35 | $-6.59 < \Psi < 40.11$ |
| $\hat{\Psi} = (\bar{X}_2+\bar{X}_3+\bar{X}_4)-3\bar{X}_1$ | 21.12 | 29.68 | $-8.56 < \Psi < 50.80$ |
| $\hat{\Psi} = (2\bar{X}_2+\bar{X}_3)-3\bar{X}_1$ | 30.96 | 26.13 | $4.83 < \Psi < 57.09$* |

Legend: $\bar{X}_1$ = Mean for suburban $\bar{X}_2$ = Mean for inner-city
$\bar{X}_3$ = Mean for urban $\bar{X}_4$ = Mean for rural
* = Significant Scheffe' comparison

Table 4.17 reveals that when school location preference is ranked from highest to lowest according to mean scores on the MTAI, those individuals choosing to teach in the inner-city have the most positive attitudes toward children, followed by those wanting to teach in an urban, rural and suburban setting.

The findings presented in Table 4.18 indicate that differences among these means are statistically significant ($P < .041$). A Scheffe' Post Hoc comparison was therefore calculated to determine which differences were significant. Table 4.19 reports these findings. The results show that the Scheffe' comparison was not significant for any of the straight forward comparisons; i.e., those involving any two group means.

In short, the results of this study seem to suggest that there is some relationship between one's preferred school location and one's expressed attitudes toward children. But it is not reasonable to assume that those individuals preferring one school location such as the inner-city have a more favorable attitude toward children than those preferring some other school location such as suburban.

Sub-Question 8.

Is there any relationship between one's teaching preference (racial composition of school) and one's expressed attitudes toward children?

The analyses of data with respect to the racial composition of schools is presented in three tables. Table 4.20

contains the cell frequency and means. Table 4.21 depicts a 2 x 9, fixed-effects, analysis of variance test for the data. The results of the analysis of variance test presented in Table 4.21 indicates a statistical significance ($P < .003$) for the racial composition of school preferred. Therefore a Scheffe' Post Hoc comparison was computed in order to find the significant difference. The results of the Scheffe' comparison are depicted in Table 4.22.

Examination of Table 4.20 reveals that those individuals preferring to teach in all white schools have the lowest mean MTAI score (32.63), while those individuals preferring to teach in mostly non-white schools had the highest mean MTAI score (56.86). With the exception of one mean ($\bar{X}_6$ for group I), all means increase when going from a composition of 100 percent white for schools to an all non-white school composition. This study suggests that those individuals preferring a racial integrated school have more favorable expressed attitudes toward children than do those individuals preferring all "white" schools.

This difference was subjected to an analysis of variance test. The results of that test are depicted in Table 4.21 indicating that there is a statistically significant difference ($P < .003$).

TABLE 4.20

MEAN AND CELL FREQUENCY FOR RACIAL COMPOSITION OF SCHOOL

| | 100% w $\bar{X}_1$ (N) | 90% w $\bar{X}_2$ (N) | 75% w $\bar{X}_3$ (N) | 60% w $\bar{X}_4$ (N) | 50% w $\bar{X}_5$ (N) | 40%-0% w $\bar{X}_6$ (N) | Total Av.Mean (N) |
|---|---|---|---|---|---|---|---|
| Group I (Beg.) | 23.42 (12) | 19.92 (12) | 35.67 (36) | 43.27 (11) | 41.53 (78) | 48.44 (9) | 37.69 (158) |
| Group II (Fin.) | 40.00 (15) | 51.33 (9) | 48.82 (17) | 57.06 (17) | 63.42 (36) | 69.50 (6) | 55.62 (100) |
| Total | 32.63 (27) | 33.38 (21) | 39.89 (53) | 51.64 (28) | 48.44 (114) | 56.86 (15) | 44.64 (258) |

Legend: % w = percentage of "white" students preferred in school

$\bar{X}$ = Mean

(N) = Number of people within that category

TABLE 4.21

ANOVA TABLE FOR RACIAL COMPOSITION OF SCHOOL

| Sources | Sum Square | D.F. | Mean Square | F.Ratio | Prob. |
|---|---|---|---|---|---|
| Group | 19,688.11 | 1 | 19,688.11 | 24.0909 | 0.0001 |
| Racial | 15,285.25 | 5 | 3,057.05 | 3.7407 | 0.0028* |
| Group * Racial | 1,618.75 | 5 | 323.75 | 0.3962 | 0.8513 |
| Error | 201,032.87 | 246 | 817.21 | | |
| Totals | 237,624.98 | 257 | | | |

Legend: ANOVA = Analysis of variance
D.F. = Degree of freedom Prob. = Probability
Racial = Racial composition preferred at school
Group * Racial = Interaction between cell being tested
* = Statistically significant

TABLE 4.22

SCHEFFE' POST HOC COMPARISON FOR RACIAL COMPOSITION OF SCHOOL

| $\hat{\Psi}$ Contrast | $\hat{\Psi}$ | $S\sqrt{Var(\hat{\Psi})}$ | $\left[\hat{\Psi}-S\sqrt{Var(\hat{\Psi})}\right] < \Psi < \left[\hat{\Psi}+S\sqrt{Var(\hat{\Psi})}\right]$ |
|---|---|---|---|
| $\hat{\Psi} = \bar{X}_6 - \bar{X}_1$ | 24.23 | 30.60 | $-6.37 < \Psi < 54.83$ |
| $\hat{\Psi} = \bar{X}_5 - \bar{X}_1$ | 15.81 | 20.34 | $-4.53 < \Psi < 35.15$ |
| $\hat{\Psi} = (\bar{X}_4+\bar{X}_6)-2\bar{X}_1$ | 43.24 | 47.56 | $-4.32 < \Psi < 90.80$ |
| $\hat{\Psi} = (\bar{X}_4+\bar{X}_5+\bar{X}_6)-3\bar{X}_1$ | 59.05 | 63.35 | $-4.30 < \Psi < 122.40$ |
| $\hat{\Psi} = 2\bar{X}_6-(\bar{X}_1+\bar{X}_2)$ | 47.71 | 56.32 | $-8.61 < \Psi < 104.03$ |
| $\hat{\Psi} = 2\bar{X}_5-(\bar{X}_1+\bar{X}_2)$ | 30.87 | 32.88 | $-2.01 < \Psi < 63.75$ |
| $\hat{\Psi} = (\bar{X}_4+\bar{X}_5+2\bar{X}_6)-2(\bar{X}_1+\bar{X}_2)$ | 81.78 | 76.60 | $-5.18 < \Psi < 158.38$* |

Legend: $\bar{X}_1$ through $\bar{X}_6$ = The means for the various percentages for white individuals preferred in schools.
* = Significant Scheffe' comparison

Therefore a Scheffe' comparison was computed to determine which levels of racial preference yielded mean MTAI scores which were significantly different. As Table 4.22 reveals the largest absolute difference ($\overline{X}_1$ and $\overline{X}_6$) was not statistically significant. Since the N's have some effect in a Scheffe' comparison further tests were computed contrasting various means, such as, ($\overline{X}_1$ and $\overline{X}_5$) [see Table 4.22]. This difference also proved to be non-significant except for a weighting of those means representing schools of 60 percent white or less with those means representing schools of 90 - 100 percent white.

In short, the results of this study seem to suggest that there is some relationship between racial composition of the school which one prefers and one's expressed attitudes toward children. But it is not reasonable to assume that those individuals preferring a certain racial composition of schools have a more favorable attitude toward children than those choosing some other racial composition of schools.

# CHAPTER V

# SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

## Summary and Conclusions

The purposes of the investigation were: (1) to determine whether there was a significant difference between the expressed attitudes toward children of those individuals beginning professional education courses and those individuals concluding the professional education sequence and (2) to determine whether various demographic factors, as defined by this study, were significantly related to these attitudes.

The resolution of these objectives was sought by administering and scoring the MTAI and administering and tabulating the information on a demographic questionnaire.

The sample consisted of 290 teacher candidates at Michigan State University. Of the 290 students who took the MTAI and demographic questionnaire 279 completed both forms satisfactorily. This yielded a return rate of 96.2 percent.

The independent variables in this study included: extent of professional training, sex, grade level preference, subject area competency, type of school (K-8 and K-12) in

which educated, number of siblings, school location preference, and racial composition of school preference. An individual's score on the MTAI served as the dependent variable in every analysis. Mean scores on the MTAI were computed for each level of all independent variables. A multivariate analysis of variance test was then computed to determine whether observed differences between means were significant. If the results of the analysis of variance showed statistical significance, a Scheffe' Post Hoc comparison was calculated to determine which of the means were responsible for the statistical significance.

The analyses of the MTAI mean scores in relation to the independent variables of personal demographic data and level of professional training revealed six significant differences in MTAI mean scores. Of the nine variables tested the six significant variables were: (1) level of professional training, (2) sex, (3) subject competency, (4) type of community raised until college, (5) school location preference and (6) racial composition of school preferred.

The research findings of this investigation support the following conclusions:

(1) The MTAI mean scores for Group I (Beg.) vs. Group II (Fin.) was statistically significant at the .0005 level, indicating that Group II (Fin.) had a significantly more positive attitude toward children than did Group I (Beg.). Possible explanations of this difference include (a) that those composing Group I (Beg.) had a total life experience

which was different from the life experiences of Group II (Fin.), (b) that the University experience for Group II (Fin.) has resulted in changing their attitudes toward children in a positive direction, (c) that the professional education course sequence has had an effect on Group II (Fin.) such that their attitudes toward children have shifted in a more positive direction, (d) that there may be a filtering or weeding out process at work, since only 60 percent of those individuals who enrolled in the first professional education course ultimately complete the final education course. Those individuals with less positive attitudes toward children may drop out of the teacher education program for one reason or another leaving those individuals with more positive attitudes toward children.

(2) The MTAI mean scores for sex (male vs. female) was statistically significant at the .003 level, indicating that females had a significantly more positive attitude toward children than did males. Speculation as to the reason for this sexual difference in expressed attitudes toward children, possibly include: (a) the role expectation for females within the societal context is such that a more positive attitude toward children is fostered. This could be due to different rearing practices for female and male children, the child bearing functions of females and a differentiation between females and males on the basis of work, protection and providing for families; (b) the religious servitude of females under males down through time has

necessitated male dominance which has therefore resulted in males being more aggressive and possessive of people.

(3) The MTAI mean scores for subject competency were statistically significant at the .041 level. The study suggests that subject competency has some relationship to expressed attitudes toward children. Although five out of six of the highest means were in humanistic areas such as fine arts, as opposed to content areas such as mathematics and science, the mean for physical education was lower than that for any other category. It is therefore impossible to make any meaningful generalizations about this finding even though there was statistical significance.

(4) The MTAI mean scores for the type of community raised were collected and computed in two parts. The first part was the type of community raised from birth to 10 years of age. The difference between MTAI mean scores for this variable (community raised 0-10 years) was not statistically significant at the .05 level. However, the difference between MTAI mean scores for part two (type of community raised until attending college) was statistically significant at the .027 level, indicating that people raised until college in the inner-city had significantly less favorable attitudes toward children than those raised until college in suburban and urban areas. These results, however, were based on an N of 5 for the inner-city. Any explanation of this finding must therefore be viewed as highly speculative.

The explanation most plausible to this author centers around the hard life within the inner-city. If one

assumes that adult attitudes toward children raised in the inner-city are negative, then it seems reasonable to suggest that the less positive attitudes among inner-city students in this sample maybe merely a reflection of the harshness of attitudes which have been expressed toward them.

A plausible explanation of the low N obtained in this sample for the inner-city might be that society puts negative connotations on the word inner-city, therefore people do not identify nor want to be identified with having been raised in the inner-city. Also, admission policies of universities are such that fewer people raised in the inner-city are admitted to college.

(5) The MTAI mean scores for school location preference were statistically significant at the .041 level. The study suggests that school location preference has some relationship to expressed attitudes toward children. If a random sample of educators were asked to rank the following types of schools according to desirability in terms of discipline problems, available materials, etc., it is highly likely that the rank ordering would be: suburban, rural, urban and inner-city. This same rank ordering is maintained in regard to attitudes toward children among those who prefer to teach in the suburban school, for example, have the least positive attitudes toward children, while those preferring to teach in an inner-city school have the most favorable attitudes. However, the results of the Scheffe' comparison suggest that it is not possible to conclude that attitudes vary significantly between any two types of preferred schools.

(6) The MTAI mean scores for the racial composition of schools preferred was statistically significant at the .003 level. The study suggests the racial composition of school preferred has some relationship to expressed attitudes toward children. There appears to be a linear trend when progressing from a preference to teach in a 100 percent "white" school to a preference for a 100 percent "non-white" school. But this trend is disrupted by a low mean score for individuals preferring to teach in a 50 percent "non-white" school. With this exception, however, it seems reasonable to conclude that there is an increasingly positive attitude toward children among those who indicate a preference to teach in a school with increasing percents of "non-white" students.

The analyses of the MTAI mean scores in relation to the independent variables (number of siblings, type of school educated and grade level preference) were not statistically significant at the .05 level. Although grade level preference did obtain a significance of .058 indicating that there is some relationship between grade level preferred and one's expressed attitudes toward children, the other two independent variables did not appear to have any relationship to one's expressed attitudes toward children.

In summary, this study suggests that those individuals who have the most positive attitudes toward children have completed their professional education course sequence, are female, have been raised in a suburban or urban setting, prefer to teach in grades kindergarten through the third grade,

prefer to teach in the inner-city and prefer a school composition of nearly equal or more "non-white" students than "white" students.

## Recommendations from the Study

The recommendations in this section are based upon the literature review, the findings of this study and the considered judgment of the author.

As one views society's institutions and the direction they are now moving, one is struck by the similarity to a moving automobile driven by looking through the rearview mirror. For the monster in society is not the snow-balling technology nearly out of control; nor the government, although it only vaguely resembles its founding ideals. It is not the military, even though it possesses the ability to destroy the world yet still sees its function as killing; nor is it a society founded by a rebellion of people, that now will not listen to its people, even though they demonstrate. It is, however, the gross contempt and callousness man has for his fellowman. It is the inability to invest in people which has become the monster in our midst.

The assumption which underlies the following recommendations is that people are our most precious commodity, and that a philosophy founded on a premise of people believing in people does make a difference.

(1) Those people about to graduate from the university in education seem to have more positive attitudes toward children than those now entering their preparation for

teaching. For whatever reason this may be true, (years lived, university experience, courses taken, self selectivity, etc.) there needs to be planned, rather than chance experiences, in order to help people develop more positive attitudes toward children.

(2) The difference between female and male attitudes toward children is enough to warrant consideration and differentiation in college of education curricula.

(3) People, especially those individuals endeavoring to become skilled in content areas, need to be more aware of their love for data rather than people. It is unthinkable to graduate students from our universities who indoctrinate children, unaware that education orientated towards product production is not an end in itself, but that education, the process, is the desired end.

(4) With the megalopolis threatening the countryside and our present cities crying for change in the education of our inner-city children, this study suggests that people raised in the inner-city have the least positive attitudes toward children. This indicates that the hiring practices of inner-city schools in selecting those individuals with similar backgrounds to those of the student body is perhaps a gross mistake. Further research must be conducted to either confirm or deny this point.

(5) Those people choosing to teach in the inner-city appear to have positive attitudes toward children. The problem is that whereas the majority of teaching positions are in the cities, the majority of teacher candidates prefer

to teach in the suburban areas. Those people wanting to teach in suburbia seem to possess less favorable attitudes toward children than those preferring other teaching locations. Therefore, those people not hired to teach in the suburban communities wind up in the city teaching and are possibly the ones with the most negative attitudes toward children of all. With the close proximity of megalopolis, great effort and care must therefore be taken to foster increasingly more positive attitudes toward children.

(6) If a multi-racial society is ever to be, then those people charged with educating the children of this world must be aware of their biases and attitudes. For awareness is the first step in changing and in this day and age, change we all must.

(7) Great thought and care must be given in providing methods or procedures for selecting individuals into our teacher education programs. Education is working with children and it is criminal to simply allow people into teacher preparatory programs, prescribe the courses, feed them content and data and then certificate them without ever having them examine their attitudes and biases.

(8) Teacher education institutions must obligate themselves to aid their students in evaluating their own strengths and weaknesses through such vehicles as sensitivity training, small group discussions, diagnostic testing, foreign exchange programs and culturally divergent experiences. Weaknesses of attitudes toward youth, personality traits, personal characteristics and human

relationships in teachers must be recognized and strengthened so that teachers can be of greater benefit to children and better equipped to meet the onslaught of 50 minute periods with 30 or more students per period.

(9) Teacher education institutions have a further obligation for evaluating their own programs of teacher education to determine whether they are meeting fully the objectives which they have set for themselves. This might be accomplished by ongoing testing and research, student-faculty interaction and discussions, student participation in decision making, the dropping of grades as being synonomous with evaluation, the killing of the educational sacred cows and a greater commitment to education rather than schooling.

(10) A more careful selection of supervising teachers must be exercised such that those teachers selected are the more creative, industrious and possess positive attitudes toward children. These desirable teacher characteristics should have behavioral visability not just verbal rhetoric.

(11) There needs to be a more meaningful sequence of experiences in and out of the university classroom and a greater integration of courses on campus. Consider for example, the exalted position of student teaching at the end of one's teacher training rather than at the beginning. If the understanding of children is significant to becoming a good teacher, then why not have action programs where teacher candidates become involved with children in more than just a school setting.

Central to all of the above recommendations is the concept that change in attitudes is at the heart of neglect of educational institutions.

## Recommendations for Future Research

Emerging from this study are a number of possible ideas for future inquiry and research.

(1) What are the attitudes toward children as expressed by those individuals not completing their course sequence for teacher certification?

(2) What are the expressed attitudes toward children of a randomly selected group of teacher candidates analyses on a longitudinal basis.

(3) What type of attitude differentiation is discernible from subject area selection?

(4) What are the ramifications for hiring teachers in inner-city schools if inner-city raised and educated adults possess significantly less favorable attitudes toward children?

(5) What type of attitude differentiation is discernible from grade level preferences?

(6) What type of interrelations exist between the type of racial composition preference in schools and expressed attitudes toward children?

(7) What effects, if any, have the undergraduate educational courses had on student attitudes toward children?

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# APPENDICES

# APPENDIX A

INSTRUCTIONS

PERSONAL DATA SHEETS--Please circle your answers on the actual test form.

ATTITUDE INVENTORY----Please mark your answers on the enclosed answer sheet. Do not mark on the inventory form. Be sure to use a machine marking pencil or a No. 2 pencil.

The stamped numbers on the personal data and answer sheets relate only to pairing up the data for statistical analysis. No attempt is being made to identify the individual completing the inventory.

I want to express my appreciation to you for taking the time to complete the enclosed questionnaires. The importance of the questionnaires is to focus on attitudes about children. No attempt is being made to assess "right" attitudes but rather to see if college has an effect on attitudes toward children.

Please return the complete envelope (including booklets and answer sheet) to your instructor.

Thank you.

# APPENDIX B

DO NOT OPEN UNTIL TOLD TO DO SO

# MINNESOTA TEACHER ATTITUDE INVENTORY

Form A


WALTER W. COOK
University of Minnesota

CARROLL H. LEEDS
Furman University

ROBERT CALLIS
University of Missouri


## DIRECTIONS

**This inventory consists of 150 statements designed to sample opinions about teacher-pupil relations. There is considerable disagreement as to what these relations should be; therefore, there are no right or wrong answers. What is wanted is your own individual feeling about the statements. Read each statement and decide how YOU feel about it. Then mark your answer on the space provided on the answer sheet. Do not make any marks on this booklet.**

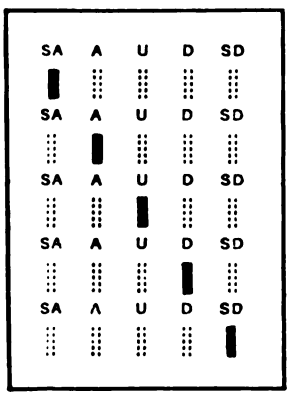
If you **strongly agree,** blacken space under "SA" .....

If you **agree,** blacken space under "A" .....

If you are **undecided** or **uncertain,** blacken space under "U" .....

If you **disagree,** blacken space under "D" .....

If you **strongly disagree,** blacken space under "SD" .....




**Think in terms of the general situation rather than specific ones. There is no time limit, but work as rapidly as you can. PLEASE RESPOND TO EVERY ITEM.**

The inventory contained in this booklet has been designed for use with answer forms published or authorized by The Psychological Corporation. If other answer forms are used, The Psychological Corporation takes no responsibility for the meaningfulness of scores.




Printed in U.S.A.

The Psychological Corporation, 304 East 45th Street, New York, N. Y. 10017

66-143TB

SA—Strongly agree
A—Agree

U—Undecided
or uncertain

D—Disagree
SD—Strongly disagree

1. Most children are obedient.
2. Pupils who "act smart" probably have too high an opinion of themselves.
3. Minor disciplinary situations should sometimes be turned into jokes.
4. Shyness is preferable to boldness.
5. Teaching never gets monotonous.
6. Most pupils don't appreciate what a teacher does for them.
7. If the teacher laughs with the pupils in amusing classroom situations, the class tends to get out of control.
8. A child's companionships can be too carefully supervised.
9. A child should be encouraged to keep his likes and dislikes to himself.
10. It sometimes does a child good to be criticized in the presence of other pupils.
11. Unquestioning obedience in a child is not desirable.
12. Pupils should be required to do more studying at home.
13. The first lesson a child needs to learn is to obey the teacher without hesitation.
14. Young people are difficult to understand these days.
15. There is too great an emphasis upon "keeping order" in the classroom.
16. A pupil's failure is seldom the fault of the teacher.
17. There are times when a teacher cannot be blamed for losing patience with a pupil.
18. A teacher should never discuss sex problems with the pupils.
19. Pupils have it too easy in the modern school.
20. A teacher should not be expected to burden himself with a pupil's problems.
21. Pupils expect too much help from the teacher in getting their lessons.
22. A teacher should not be expected to sacrifice an evening of recreation in order to visit a child's home.
23. Most pupils do not make an adequate effort to prepare their lessons.
24. Too many children nowadays are allowed to have their own way.
25. Children's wants are just as important as those of an adult.
26. The teacher is usually to blame when pupils fail to follow directions.
27. A child should be taught to obey an adult without question.
28. The boastful child is usually over-confident of his ability.
29. Children have a natural tendency to be unruly.
30. A teacher cannot place much faith in the statements of pupils.

GO ON TO THE NEXT PAGE

SA—Strongly agree
A—Agree

U—Undecided
or uncertain

D—Disagree
SD—Strongly disagree.

31. Some children ask too many questions.

32. A pupil should not be required to stand when reciting.

33. The teacher should not be expected to manage a child if the latter's parents are unable to do so.

34. A teacher should never acknowledge his ignorance of a topic in the presence of his pupils.

35. Discipline in the modern school is not as strict as it should be.

36. Most pupils lack productive imagination.

37. Standards of work should vary with the pupil.

38. The majority of children take their responsibilities seriously.

39. To maintain good discipline in the classroom a teacher needs to be "hard-boiled."

40. Success is more motivating than failure.

41. Imaginative tales demand the same punishment as lying.

42. Every pupil in the sixth grade should have sixth grade reading ability.

43. A good motivating device is the critical comparison of a pupil's work with that of other pupils.

44. It is better for a child to be bashful than to be "boy or girl crazy."

45. Course grades should never be lowered as punishment.

46. More "old-fashioned whippings" are needed today.

47. The child must learn that "teacher knows best."

48. Increased freedom in the classroom creates confusion.

49. A teacher should not be expected to be sympathetic toward truants.

50. Teachers should exercise more authority over their pupils than they do.

51. Discipline problems are the teacher's greatest worry.

52. The low achiever probably is not working hard enough and applying himself.

53. There is too much emphasis on grading.

54. Most children lack common courtesy toward adults.

55. Aggressive children are the greatest problems.

56. At times it is necessary that the whole class suffer when the teacher is unable to identify the culprit.

57. Many teachers are not severe enough in their dealings with pupils.

58. Children "should be seen and not heard."

59. A teacher should always have at least a few failures.

60. It is easier to correct discipline problems than it is to prevent them.

GO ON TO THE NEXT PAGE

SA—Strongly agree
A—Agree

U—Undecided
or uncertain

D—Disagree
SD—Strongly disagree

61. Children are usually too sociable in the classroom.

62. Most pupils are resourceful when left on their own.

63. Too much nonsense goes on in many classrooms these days.

64. The school is often to blame in cases of truancy.

65. Children are too carefree.

66. Pupils who fail to prepare their lessons daily should be kept after school to make this preparation.

67. Pupils who are foreigners usually make the teacher's task more unpleasant.

68. Most children would like to use good English.

69. Assigning additional school work is often an effective means of punishment.

70. Dishonesty as found in cheating is probably one of the most serious of moral offenses.

71. Children should be allowed more freedom in their execution of learning activities.

72. Pupils must learn to respect teachers if for no other reason than that they are teachers.

73. Children need not always understand the reasons for social conduct.

74. Pupils usually are not qualified to select their own topics for themes and reports.

75. No child should rebel against authority.

76. There is too much leniency today in the handling of children.

77. Difficult disciplinary problems are seldom the fault of the teacher.

78. The whims and impulsive desires of children are usually worthy of attention.

79. Children usually have a hard time following instructions.

80. Children nowadays are allowed too much freedom in school.

81. All children should start to read by the age of seven.

82. Universal promotion of pupils lowers achievement standards.

83. Children are unable to reason adequately.

84. A teacher should not tolerate use of slang expressions by his pupils.

85. The child who misbehaves should be made to feel guilty and ashamed of himself.

86. If a child wants to speak or to leave his seat during the class period, he should always get permission from the teacher.

87. Pupils should not respect teachers any more than any other adults.

88. Throwing of chalk and erasers should always demand severe punishment.

89. Teachers who are liked best probably have a better understanding of their pupils.

90. Most pupils try to make things easier for the teacher.

GO ON TO THE NEXT PAGE

SA—Strongly agree
A—Agree

U—Undecided
or uncertain

D—Disagree
SD—Strongly disagree

91. Most teachers do not give sufficient explanation in their teaching.

92. There are too many activities lacking in academic respectability that are being introduced into the curriculum of the modern school.

93. Children should be given more freedom in the classroom than they usually get.

94. Most pupils are unnecessarily thoughtless relative to the teacher's wishes.

95. Children should not expect talking privileges when adults wish to speak.

96. Pupils are usually slow to "catch on" to new material.

97. Teachers are responsible for knowing the home conditions of every one of their pupils.

98. Pupils can be very boring at times.

99. Children have no business asking questions about sex.

100. Children must be told exactly what to do and how to do it.

101. Most pupils are considerate of their teachers.

102. Whispering should not be tolerated.

103. Shy pupils especially should be required to stand when reciting.

104. Teachers should consider problems of conduct more seriously than they do.

105. A teacher should never leave the class to its own management.

106. A teacher should not be expected to do more work than he is paid for.

107. There is nothing that can be more irritating than some pupils.

108. "Lack of application" is probably one of the most frequent causes for failure.

109. Young people nowadays are too frivolous.

110. As a rule teachers are too lenient with their pupils.

111. Slow pupils certainly try one's patience.

112. Grading is of value because of the competition element.

113. Pupils like to annoy the teacher.

114. Children usually will not think for themselves.

115. Classroom rules and regulations must be considered inviolable.

116. Most pupils have too easy a time of it and do not learn to do real work.

117. Children are so likeable that their shortcomings can usually be overlooked.

118. A pupil found writing obscene notes should be severely punished.

119. A teacher seldom finds children really enjoyable.

120. There is usually one best way to do school work which all pupils should follow.

GO ON TO THE NEXT PAGE

SA—Strongly agree
A—Agree

U—Undecided
or uncertain

D—Disagree
SD—Strongly disagree

121. It isn't practicable to base school work upon children's interests.

122. It is difficult to understand why some children want to come to school so early in the morning before opening time.

123. Children that cannot meet the school standards should be dropped.

124. Children are usually too inquisitive.

125. It is sometimes necessary to break promises made to children.

126. Children today are given too much freedom.

127. One should be able to get along with almost any child.

128. Children are not mature enough to make their own decisions.

129. A child who bites his nails needs to be shamed.

130. Children will think for themselves if permitted.

131. There is no excuse for the extreme sensitivity of some children.

132. Children just cannot be trusted.

133. Children should be given reasons for the restrictions placed upon them.

134. Most pupils are not interested in learning.

135. It is usually the uninteresting and difficult subjects that will do the pupil the most good.

136. A pupil should always be fully aware of what is expected of him.

137. There is too much intermingling of the sexes in extra-curricular activities.

138. The child who stutters should be given the opportunity to recite oftener.

139. The teacher should disregard the complaints of the child who constantly talks about imaginary illnesses.

140. Teachers probably over-emphasize the seriousness of such pupil behavior as the writing of obscene notes.

141. Teachers should not expect pupils to like them.

142. Children act more civilized than do many adults.

143. Aggressive children require the most attention.

144. Teachers can be in the wrong as well as pupils.

145. Young people today are just as good as those of the past generation.

146. Keeping discipline is not the problem that many teachers claim it to be.

147. A pupil has the right to disagree openly with his teachers.

148. Most pupil misbehavior is done to annoy the teacher.

149. One should not expect pupils to enjoy school.

150. In pupil appraisal effort should not be distinguished from scholarship.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IN 1921

# APPENDIX C

# MINNESOTA TEACHER ATTITUDE INVENTORY

Cook · Leeds · Callis



THE PSYCHOLOGICAL CORPORATION

NORMS USED

NAME _____ (LAST / FIRST)

COLLEGE AND CLASS OR SCHOOL AND POSITION _____

DATE _____

MALE ____ FEMALE ____

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# APPENDIX D

# APPENDIX D

PLEASE CIRCLE THE APPROPRIATE ANSWER FOR EACH ITEM.

1. Please indicate your sex.

    1. Female
    2. Male

2. Please indicate your age.

    1. 18 yrs. or under
    2. 19 yrs.
    3. 20 yrs.
    4. 21 yrs.
    5. 22 yrs.
    6. 23 yrs.
    7. 24 yrs.
    8. 25 yrs.
    9. 26-30 yrs.
    10. 31 yrs. or over

3. Please indicate your marital status.

    1. Single
    2. Married
    3. Divorced
    4. Separated
    5. Widowed

4. Please indicate your race.

    1. Caucasion
    2. Negroid
    3. Other

5. Please indicate which grade level you intend to teach.

    1. Early elementary (K-3)
    2. Later elementary (4-6)
    3. Junior High (7-9)
    4. High School (10-12)

6. Please indicate the teaching area in which you feel you have or will have your greatest competence.

   1. Mathematics
   2. Science
   3. English
   4. Home Economics
   5. Exceptional Children (gifted or handicapped)
   6. Industrial Arts
   7. Physical Education
   8. Communication Arts
   9. Social Sciences
   10. Fine Arts

7. Please indicate the type of school in which you received the majority of your (K-8) education.

   1. Public
   2. Church affiliated
   3. Private

8. Please indicate the type of school in which you received the majority of your (K-12) education.

   1. Public
   2. Church affiliated
   3. Private

9. Please indicate the type of community in which you were raised for the majority of your childhood (0-10 years).

   1. Suburban
   2. Inner-city
   3. Urban
   4. Rural

10. Please indicate the type of community in which you were raised for the majority of your pre-college years (0-college).

    1. Suburban
    2. Inner-city
    3. Urban
    4. Rural

11. Please indicate the last grade in school completed by your father.

    1. K-8 grade
    2. 9-11 grade
    3. High School graduate
    4. Junior College or equivalent
    5. College Degree or beyond

12. Please indicate the last grade in school completed by your mother.

    1. K-8 grade
    2. 9-11 grade
    3. High School graduate
    4. Junior College or equivalent
    5. College Degree or beyond

13. Please indicate the number of children in your family including yourself.

    1. 1
    2. 2
    3. 3
    4. 4
    5. 5
    6. 6
    7. 7
    8. 8
    9. over 8

14. Please indicate to which social class your parents belong.

    1. Lower class
    2. Upper-lower class
    3. Lower-middle class
    4. Upper-middle class
    5. Lower-upper class
    6. Upper class

15. Please indicate the location preference of the school where you would teach.

    1. Suburban
    2. Inner-city
    3. Urban
    4. Rural

16. Please indicate your preference of school type where you would teach.

1. Public
2. Church affiliated
3. Private

17. Please indicate the preferrable social class composition of the school where you would teach.

1. Lower class
2. Upper-lower class
3. Lower-middle class
4. Upper-middle class
5. Lower-upper class
6. Upper class
7. No preference
8. Other

18. Please indicate the preferrable racial composition of the school where you would teach.

1. 100% white
2. 90% white, 10% non-white
3. 75% white, 25% non-white
4. 60% white, 40% non-white
5. 50% white, 50% non-white
6. 40% white, 60% non-white
7. 25% white, 75% non-white
8. 10% white, 90% non-white
9. 100% non-white