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A SURVEY OF MICHIGAN VOCATIONAL TEACHERS OF STUDENTS WITH SPECIAL NEEDS TO DETERMINE THE EFFECT OF SPECIALIZED TRAINING ON SELECTED ATTITUDES

Michigan State University PH.D. 1980

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By

William A. Tolbert

A DISSERTATION

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ABSTRACT

A SURVEY OF MICHIGAN VOCATIONAL TEACHERS OF STUDENTS WITH SPECIAL NEEDS TO DETERMINE THE EFFECT OF SPECIALIZED TRAINING ON SELECTED ATTITUDES

By

William A. Tolbert

Problem.--Finding qualified teaching personnel for vocational programs for students with special needs has been very difficult.

One of the factors working against placing the handicapped in the regular classroom is the vocational educators' lack of training in dealing with special needs students.

Because integration of the handicapped into the regular education program is encouraged by Federal and State law, and is necessary if the handicapped are to be served adequately, vocational education must prepare vocational educators to deal effectively with the handicapped and the disadvantaged.

Purpose.--The purpose of the study was to determine whether teachers who attended a Vocational Education/Special Education Workshop would increase their positive attitudes toward special needs students. Another purpose of the study was to research the relationship between the independent variables (age, sex, cluster, treatment, and education) and the interpersonal relationship factors, level of regard and unconditionality of regard.

Background.--An extensive review of the literature was undertaken as a means of establishing a background for the study.

Method.--The population studied included Michigan vocational teachers teaching in high schools and post-secondary institutions in the State of Michigan. This population was identified through two steps: (1) the names of all administrators of special needs programs in Michigan were obtained from the Disadvantaged and Handicapped Programs Unit, Vocational-Technical Education. (2) A Vocational Education/Special Education Workshop for teachers of special needs students was attended.

Analysis.--Analysis of covariance was computed for the data collected in the study, using the pretest scores as the covariate. In presenting the results of the data an 0.05 alpha was used as the criterion of significance of the stated hypotheses. Chi Square was used to test for relationship between age of teacher and the interpersonal relationship factors, level of regard and unconditionality of regard. Spearman Rank Correlation was also computed to test for relationship between age, education, and the interpersonal relationship factors, level of regard and unconditionality of regard.

Conclusions and Recommendations.--It was concluded from the analysis of the data, that there was no significant difference between teachers' attitudes who had attended a Vocational Education/Special Education Workshop and teachers who had not attended a Vocational Education/Special Education Workshop. It was concluded that age, sex, cluster, treatment, and education did not significantly affect the attitudes teachers held toward special needs students. Recommendations included: (1) that the model presently being used by the State of Michigan for inservice teacher training of teachers who teach in

special needs programs be examined by decision makers and programmers in vocational education. (2) that the model presently being used be modified by adding a sensitivity training and/or human relationship factor; (3) that surveys should be made among the occupational clusters in which teachers seemed to have higher positive attitudes to determine why they held higher positive attitudes.

To my wife Ruth, without whose help, prayers, and patience I could not have completed this task; and to God who directed me as I struggled and prayed for strength and wisdom to finish this task.

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I want to thank all who have had a part in helping me to complete this achievement.

To my committee chairman, Frank Bobbitt, I extend my most sincere thanks and appreciation. To the other members of my committee: O. Donald Meaders, Sam Corl, and John Suehr, I extend my most sincere thanks and appreciation.

To my wife, Ruth, I give more than thanks and appreciation. It was she who helped me to accomplish this task; and by her prayers and patience brought me to the completion of this task.

To my children, I extend my thanks and appreciation. They seemed to feel that Dad could do anything.

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CHAPTER I

INTRODUCTION

Education for exceptional children, or special education, has been a relatively new field of professional activity. In the United States improvements in special education are in large measure due to changing social attitudes toward handicapped and disadvantaged individuals. The change from the use of such terms as "atypical" and "deviant" to the more positive use of the term "exceptional" and "special needs" has been an indication of a very basic development in the field of education.

In the area of direct services and the development of programs for "special needs" children over the past decades, there have been vital progressive movements in which such developments have helped to create a more positive attitude on the part of the public toward handicapped and disadvantaged children. The change in public attitudes toward exceptional children has assisted in developing methods and programs for the handicapped. Growing modern technology, reflection of economic realism and other social changes raise a considerable responsibility and leave little chance for refusal of educationally accountable programs for all exceptional children.

In the development of educationally accountable programs for "special needs" children, attitudes have played an important and essential role. It has been proved that planning for any rational

educational change or program innovation for "special needs" children must include the attitude component. Attitude assessment has been an important step in the assessment of readiness for the development of programs and services for handicapped and disadvantaged persons.

Attitudes and conceptions of the handicapped and disadvantaged held by the public in general and particularly by those individuals who have direct contact with exceptional children; such as educators and employers, have been important. Hence, it appears that identification and modification of attitudes as they relate to handicapped and disadvantaged persons have been of increasing concern to educators and researchers interested in improving the educational and employment opportunities of handicapped and disadvantaged persons.

It has been difficult to describe succinctly the population on which this study was focused. A review of the literature indicated that such terms as academically disadvantaged, socially disadvantaged, disadvantaged, educable mentally handicapped, emotionally disturbed, and slow learner, among others, frequently have been used interchangeably when referring to students with special needs. Group characteristics of these students included such problems as deficiencies in reading and other basic skills essential to learning, the lack of achievement, motivation, and negative perceptions of self and education.

Background of Study

With minor exceptions, mankind's attitudes toward its handicapped population has been characterized by overwhelming prejudice. The handicapped have been systematically isolated from the mainstream

of society. From ancient to modern times, the physically, mentally or emotionally disabled have been alternatively viewed by the majority as dangers to be destroyed, as nuisances to be driven out or as burdens to be confined. Treatment resulting from a tradition of isolation has been invariably unequal and has operated to prejudice the interests of the handicapped as a minority group.[1]

The manifestations of these attitudes occurred in schools in a variety of ways: exclusion of children who have handicaps, incorrect or inappropriate classification, labeling or placement, and inappropriate education programs, as well as arbitrary and capricious educational decision making. While this listing has not been exhaustive, it has shown the major practices in use.

The 1968 Vocational Education Amendments directed that each state develop programs for the disadvantaged. Federal funds from the same act were allocated to provide vocational education for handicapped persons. With release of these funds, the Vocational-Technical Education Service Unit of the Michigan Department of Education moved to hire consultants to develop programs within the state for the disadvantaged and the handicapped.

In 1971, Michigan legislators passed and the Governor signed Public Act 198, the Mandatory Special Education Act. The Act included these major provisions:

> The law required that the State Board of Education write and continually modify a State Plan that would assure all persons, age 0-25, who may have handicaps will be located and given the special education programs and services that would develop their maximum potential.
>
> The law also required that each Intermediate School District Board of Education write an Intermediate School District Plan for the Delivery of Special Education Programs and Services. . . .[2]

The Evaluation Report of the Michigan Vocational Education Special Needs Programs for 1973-74 recommended that "the goals of the Special Needs programs with respect to the area of preservice teacher education for the handicapped and disadvantaged should be delineated."[3] Concerning teachers for such programs, the Disadvantaged and Handicapped Unit, Vocational-Technical Education Service of the Michigan Department of Education indicated, "Teachers must be certified in accordance with the Michigan Department of Education code. . . ."[4] The Administration Guide for Vocational-Technical Education, Michigan Department of Education, Vocational-Technical Education Service stated, "All teachers who are teaching in a State reimbursed vocational classroom are to be vocationally certified. . . ."[5]

However, neither the Guidelines for Vocational Education Programs for persons with special needs for FY 1975-76 nor the Administration Guide for Vocational-Technical Education indicated the required characteristics for vocational teachers in special needs programs. Likewise, neither Public Act 198 nor the subsequent Special Education Code indicated the desired characteristics for vocational teachers in special education or special needs programs, nor did they indicate the desired characteristics for special education teachers teaching in special vocational education programs.

Jan Baxter stated:

> Public Act 198 and the subsequent Special Education Code do not specify who is responsible for providing the vocational instruction for handicapped students. The instruction can be provided by either special education or vocational teachers. Handicapped persons integrated into the regular vocational programs will obviously receive their instruction from a certified vocational education teacher. . . .[6]

The Michigan Guidelines for Vocational Education Programs for persons with special needs for FY 1975-76 indicated a local educational agency may be considered eligible to operate a special needs preparatory and/or cooperative education program if the federal guidelines are met.

On the opening day of school in September 1978, Public Law 94-142 became effective. Its primary goal was to provide free, appropriate educational opportunities for all handicapped individuals who required special educational services.

Public Law 94-142 made the state responsible for ensuring that these services were provided. Thus, the standards of the state plan under Public Law 94-142 would apply to special education programs in other public and private agencies, as well as to local educational agencies.

The clear mandate for protection of rights of the handicapped to education and fair treatment in employment called for significant changes in the existing systems for vocational education, special education, vocational rehabilitation, job placement, and personnel management in business and industry.

The range of individual differences in students in regular school programs has been expanded, as has been the diversity of individuals in the nation's workforce. A general attitude of acceptance, as well as organized programs of awareness and public information and inservice education was critical to successful implementation of the intent of Congress.

A number of special workshops have been conducted throughout the State of Michigan. They are of two types:

1. Instructional Strategies in Special Needs. The purposes of these workshops were:

> (a) to update local educators in the technical requirements associated with their projects, (b) train them in the completion of various forms, (c) provide some discussion of methods and resources which may be used to instruct the handicapped and disadvantaged, and (d) facilitate communications among the various project personnel and among those contemplating offering a Special Needs Program.[7]

These workshops were attended by vocational and special education teachers, paraprofessionals, and administrators.

2. Vocational Education/Special Education Workshops. The purpose of these workshops was to train vocational and special education teachers to work cooperatively in occupational preparation of students with special needs. It was the opinion of the sponsors of these workshops that if teachers were better prepared to work with the handicapped and disadvantaged students who were being assigned to their classrooms, their attitudes would be more positive toward those students. It was assumed that these workshops would be a means of increasing positive attitudes of teachers teaching in special needs programs. These workshops were funded by the Michigan Department of Education, Vocational Education and Career Development Service, Special Needs Section.[8] A model for in-service training of special needs teachers was developed by a committee, co-chaired by: Gene Thurber, Kent Intermediate School District; Larry Barber, Vocational-Technical Education Service; and Sheryl Cook, Bureau of Rehabilitation.

> The model--Special Education, Vocational Education and Vocational Rehabilitation Staff Competencies for Preservice and Inservice Training in Prevocational and Vocational Education for the Handicapped--contained the following components:

1. LAW SECTIONS
   (Purpose, applicability and general provisions of Federal and State Legislation insuring handicapped children an appropriate public education).

2. HANDICAPPED SECTION
   (Types of impairments and their characteristics).

3. AGENCIES/INTERAGENCY SECTION
   (Inter-disciplinary responsibilities and services for the handicapped in vocational education).

4. INDIVIDUALIZED EDUCATION PLAN SECTION
   (Provision for and assurance of the education of handicapped students).

5. INSTRUCTIONAL PROGRAMS
   (Provision of instructional programs).

6. INSTRUCTIONAL MATERIALS DEVELOPMENT
   (Resource materials and related information).

7. EVALUATION
   (Evaluation for purposes of determining instructional effectiveness).

Statement of the Problem

The purpose of this study was to determine whether teachers who attended a Vocational Education/Special Education Workshop would increase their positive attitudes toward special needs students and thus score higher on a level of regard and an unconditionality of regard scale of a teacher-pupil relationship inventory than would teachers who had not attended a Vocational Education/Special Education Workshop. A high score on a teacher-pupil relationship inventory was to be viewed as having a high positive attitude toward special needs students. The study was also designed to discuss the relationship found between the normative data (age, sex, teaching experience, and formal education of the teacher) and the interpersonal relationship factors (level of regard and unconditionality of regard). The

independent variables in this study were: (1) occupational cluster, (2) sex, (3) age, (4) education, and (5) treatment (experimental and control.

An additional purpose of the study was to provide information and make recommendations for decision makers and programmers in the field of vocational education for students with special needs, with emphasis on inservice teacher education at the secondary and post-secondary levels.

Significance of the Study

It has been suggested by many scholars in the field of special education and rehabilitation, e.g., Jordan (1969)[9] that an important area of investigation for researchers interested in improving the status of exceptional children within a country would be first to find out what attitudinal clusters exist concerning handicapped and/or disabled persons.

To date, insufficient attention has been paid to the attitudes of regular teachers toward exceptional children in light of the increased demand for education of handicapped children. As Gardner (1963)[10] suggested, 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.

Bayham (1963)[11] stated that whatever changes and improvements in curricula and methods are launched, the crucial factor appears to be the teacher's attitude. Teacher expectation, in itself, can have a surprising effect on pupil's 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.

Kemp (1967)[12] noted that finding qualified teaching personnel for vocational programs for students with special needs has been very difficult. One of the factors working against placing the handicapped in the regular classrooms has been the regular vocational educators' lack of training in working with the handicapped. Many vocational teachers have not had special training for working with the handicapped, and have been reluctant to accept the handicapped in their classrooms.

Since integration of the handicapped into the regular education program has been mandated by Federal and State law and has become necessary if the handicapped are to be served adequately, vocational education must prepare vocational educators to deal effectively with the handicapped.

Some of the problems reported by Greer (1975)[13] seem to be:

> Vocational teachers are very apprehensive about having handicapped students in their classes.
>
> Vocational educators statewide will not accept handicapped students. They believe the handicapped should be placed in segregated programs. More handicapped students could receive vocational services if regular instructors would accept them.
>
> Vocational educators are very reluctant to deal with handicapped students and strongly object to placement of these students in regular classrooms.
>
> Vocational educators should receive instruction to better understand the needs of the handicapped and the methods for educating them.
>
> Many problems arise when untrained, insensitive teachers deal with the handicapped.

There has been relatively little exploration of human relations training in special education teacher preparation. There has been evidence that teaching and training to teach handicapped children has been very frustrating and emotionally demanding. Blatt (1966)[14] described the worries and self-doubts of students in training to teach retarded children, and Gersh and Nagel (1969)[15] have written about the discouragement and defensiveness of student teachers of the emotionally disturbed. A significant early effort to provide emotional supportiveness and social skill building for special education teachers in training was carried out by Fagen and Long (1970).[16] They built a human relations training component into an experience-based special education master's degree program. It was in response to such recognized special education teacher training needs and possibilities that the Interpersonal Skills Workshop at Southern Connecticut State College was developed (Gerber and Drezek, 1977).[17]

To evaluate the effectiveness of the workshop the following hypotheses were tested.

> If student teachers participate in an Interpersonal Skills Workshop, then: (1) their general interpersonal skills increase; (2) their general self-acceptance increases; (3) their acceptance of others increases; (4) their classroom interpersonal skills increase.

Findings were that short-term human relations training significantly increased special education teachers' self-evaluated interpersonal skills and acceptance of self and others. These findings supported recommendations Gropper et al. (1968)[18] made to supplement courses and student teaching experiences that meet students' needs for social and emotional growth and interpersonal skills.

A report on in-service teacher training (1973)[19] on how to Plan-Conduct-Evaluate indicated:

> For vocational educators that are involved in implementing programs and services for the student with special needs--the disadvantaged and the handicapped--inservice training can fill a crucial need. This is for new teaching methods and materials that will help the special needs student to succeed in overcoming learning limitations.

Wamplar (1973)[20] supported this point of view. His findings were:

> (1) Those subjects with a substantial preservice experience in a disadvantaged school demonstrated a more positive attitude toward teaching in a similar school, and were more adequate in their teaching situation; (2) those subjects having a limited preservice experience did indicate that they were better prepared when compared with the no preservice group, but did not differ as markedly as did those subjects with the preservice student teaching experience; and (3) those subjects with the preservice student teaching experience were found to be more effective teachers and appeared to be more willing to accept a position in schools for disadvantaged following certification.

Universities, legislators, employers, teachers, parents, and others have shown a great increase in interest in the selection and training of teachers for special needs students. Therefore, this partial review of literature has shown that there is a great amount of research needed in this area.

This study has been deemed to be significant because it has added to the research that has been done and has addressed the problems related to teacher preservice and inservice training.

Hypotheses to be Tested

The central hypothesis tested in this study was:

H 1 Michigan vocational teachers who are teaching in special needs programs who have attended a Vocational Education/ Special Education Workshop will score significantly

higher on an interpersonal relationship inventory than will vocational teachers who are teaching in special needs programs who have not attended a Vocational Education/Special Education Workshop.

H 1.1 Vocational teachers who have attended a Vocational Education/Special Education Workshop will score significantly higher on a level of regard scale of a teacher-pupil relationship inventory than will vocational teachers who have not attended a Vocational Education/Special Education Workshop.

H 1.2 Vocational teachers who have attended a Vocational Education/Special Education Workshop will score significantly higher on an unconditionality of regard scale of a teacher-pupil relationship inventory than will vocational teachers who have not attended a Vocational Education/Special Education Workshop.

H 2 There is a significant difference among vocational teachers teaching in different occupational clusters.

H 2.1 Vocational teachers teaching in cluster 2 (clothing and textiles/food services/family ecology) and cluster 4 (health occupations/child care and development) will score significantly higher on a level of regard scale of a pupil relationship inventory than will vocational teachers teaching in cluster 5 (office education/business education/distributive education).

H 2.2 Vocational teachers teaching in cluster 2 (clothing and textiles/food services/family ecology) and cluster 4 health occupations/child care and development) will score significantly higher on an unconditionality of regard scale of a teacher-pupil relationship inventory than will vocational teachers teaching in cluster 5 (office education/business education/distributive education).

H 3 There is a significant interaction effect between treatment and occupational cluster.

H 3.1 There is a significant interaction effect between occupational cluster and treatment on the dependent variable level of regard.

H 3.2 There is a signification interaction effect between occupational cluster and treatment on the variable unconditionality of regard.

H 4 There is a significant difference in the positive attitudes of male and female teachers in vocational classes in special needs programs.

H 4.1 Female teachers in special needs programs will score significantly higher on a level of regard scale of a teacher-pupil relationship inventory than will male vocational teachers.

H 4.2 Female teachers in special needs programs will score significantly higher on an unconditionality of regard scale of a teacher-pupil relationship inventory than will male vocational teachers.

H 5 Vocational teachers teaching in special needs programs who have received masters degrees and beyond will score significantly higher on an interpersonal relationship scale of a teacher-pupil relationship inventory than will vocational teachers who have received less than a masters degree.

H 5.1 Vocational teachers teaching in special needs programs who have received masters degrees and beyond will score significantly higher on a level of regard scale of a teacher-pupil relationship inventory than will vocational teachers who have received less than a masters degree.

H 5.2 Vocational teachers teaching in special needs programs who have received masters degrees and beyond will score significantly higher on an unconditionality of regard scale of a teacher-pupil relationship inventory than will vocational teachers who have received less than a masters degree.

H 6 There is a significant interaction effect between sex and formal level of education.

H 6.1 There is a significant interaction effect between sex and formal level of education on a level of regard scale of a teacher-pupil relationship inventory.

H 6.2 There is a significant interaction effect between sex and formal level of education on an unconditionality of regard scale of a teacher-pupil relationship inventory.

H 7 Vocational teachers teaching in special needs programs who are 39 years old or less will score significantly higher on a level of regard scale of a teacher-pupil relationship inventory than will vocational teachers teaching in special needs programs who are 40 years old or older.

H 8 Vocational teachers teaching in special needs programs who are 39 years old or less will score significantly higher on an unconditionality of regard scale of a teacher-pupil relationship inventory than will vocational teachers teaching in special needs programs who are 40 years old or older.

Assumptions of the Study

1. It was assumed that the instrument could be used as an indicator of positive teacher attitudes.
2. It was assumed that positive teaching attitudes, such as were measured by the instrument, affect the quality of teaching.
3. It was assumed that the responses of part-time teachers were as valid as those of full-time teachers.
4. It was assumed that the responses made to the survey form were the accurate views of the respondents.

Limitations of the Study

The population of this study was limited to those special needs teachers in high schools and post-secondary institutions in the State of Michigan that had been currently operating special needs programs under the guidelines for vocational education programs for persons with special needs. These guidelines have been indicated by the Disadvantaged and Handicapped Program Unit, Vocational-Technical Education Service, Michigan Department of Education. Special training, as defined in this study, has also been a limiting factor.

Definition of Terms

The following terms have been defined in the context in which they will be used in this study.

Attitude: A relatively enduring system of evaluative, affective reactions based upon and reflecting the evaluation concepts or beliefs which have been learned about the characteristics of a social object or class of objects.[21]

Allport (1974):[22] "A mental and neurol state of readiness, organized through experiences exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related."

Drech, et al. (1962) defines:

> An attitude is a state of readiness, a tendency to act or react in a certain manner when confronted with certain stimuli. Thus, the individual's attitudes are present but dormant most of the time: they become expressed in speech or other behavior only when the object of the attitude is perceived. Attitudes are reinforced by beliefs (cognitive component) and often attract strong feelings (emotional component) that lead to particular forms of behavior (action tendency component).[23]

For the purposes of this study, attitude has been assumed to be an enduring state of prejudice which has resulted from lack of true relationship with, and a knowledge of the objects against which this prejudice has been formulated.

Cluster: A number of similar occupations considered as a group because of their relation to each other for convenience in treatment or discussion.

Disadvantaged Persons: The Michigan State Plan for Vocational Education 1976-77 defines disadvantaged persons as:

> Persons who have academic, socio-economic, cultural or other handicaps that prevent them from succeeding in regular vocational education consumer or home-making programs designed for persons without such handicaps, and who for that reason require specially designed educational programs or related services or both in order for them to benefit from vocational education or consumer and homemaking education. The term includes persons whose needs for such programs or services result from poverty, neglect, delinquence, or cultural or linguistic isolation from the community at large, but does not include physically or mentally handicapped persons unless such persons also suffer from the handicaps described in this paragraph.[24]

Handicapped Persons:

> Mentally retarded, hard of hearing, deaf, speech impaired, visually handicapped, seriously emotionally disturbed, crippled or other health impaired persons who by reason of handicapping condition cannot succeed in a program designed for persons without such handicaps, and who for that reason require special educational assistance or a modified vocational or consumer and homemaking education program.[25]

Inservice: For the purpose of this study, inservice training includes workshops, conferences, and credit and noncredit courses aimed at improving interpersonal relationships for those teaching in a special needs program.

Interpersonal Relationships:

> . . . denotes relations between "few" usually between "two" people. It signifies relationships among different persons in a group. It is a person-to-person relationship. It may appear between two persons or more. It may include the friendly as well as unfriendly relations.[26]

Level of Regard:

> . . . the affective aspect of one person's response to another. In general, it is expressed or reflected in a variety of particular qualities and strengths for both "positive" and "negative" feelings.[27]

Mainstreaming: As defined, and adopted April 8, 1976 by the Delegate Assembly of the Council for Exceptional Children:

> . . . a belief which involves an educational placement process and procedure for exceptional children, based on the conviction that each such child should be educated in least restrictive environment in which his educational and the related needs can be satisfactorily provided. This concept recognizes that exceptional children have a wide range of special educational needs, varying greatly in intensity and duration; that there is a recognized continuum of educational settings which may, at a given time, be appropriate for an individual child's needs; that to maximum extent appropriate, exceptional children should be educated with non-exceptional children; and that special classes, separate schooling, or other removal of an exceptional child from education with non-exceptional

> children should occur only when the intensity of the child's special education and related needs is such that they cannot be satisfied in an environment including non-exceptional children, even with the provision of supplementary aids and services.[28]

Preservice Training: For the purpose of this study, preservice training has been considered to be training aimed at preparing a person for an instructional position before that person is employed in a special needs program.

Regular Classroom:

> A classroom for so-called normal children wherein the entire structure has been modified to provide individualized instruction effectively to all children and to accommodate the special needs student.

Special Education Program: As set forth in the Public and Legal Acts of the Legislature of the State of Michigan (1971).

> Educational and training programs and services designed for handicapped persons operated by local school districts, Intermediate school districts, the Michigan School for the Blind, Department of Mental Health, Department of Social Services, or any combination thereof, and ancillary professional services for the handicapped persons rendered by agencies approved by the State Department of Education.[29]
>
> Handicaps include, but are not limited to, mental, physical, emotional, behavioral, sensory and speech handicaps. The programs include vocational training but need not include academic programs of college or university level.

Special Education Teacher: A teacher having met certification requirements in one or more of the following categories: learning disabilities, mentally handicapped, emotionally/socially maladjusted.

Special Needs: The Vocational Education Amendments (1974) gave the following definition of special needs:

> The term "persons with special needs" means persons who are or have been adversely affected by physical, academic, socio-economic, or other factors and conditions which

> require special supportive educational assistance and services in order to succeed in vocational education programs. The term includes persons who are handicapped, that is, "persons who are mentally retarded, hard of hearing, deaf, speech impaired, visually handicapped, seriously emotionally disturbed, crippled or other health impaired persons who by reason thereof require special services; and persons who are disadvantaged, that is: 'persons who have academic, socio-economic, or other disadvantagements which prevent them from succeeding in a regular vocational education program.'"[30]

Specialized Training: Specialized training, in this study, refers to workshops, professional field experiences, academic internship programs, institutes and/or recent and relevant formal experiences that deal specifically with training educational personnel to meet the educational needs of handicapped and disadvantaged people.

Unconditionality of Regard: The constancy of one person's affective responses and acceptance of another person which is communicated as a non-evaluative attitude of fundamental acceptance without stated or implied terms of conditionality.[31]

Vocational Education: According to the Vocational Amendments Act (1974):

> The term "vocational education" means vocational or technical training or retraining which is given in schools or classes (including field or laboratory work or remedial or related academic and technical instruction incident thereto) under public school supervision and control or, by private nonprofit or proprietary schools under contract with a State Board or Local Educational Agency and is conducted as part of a program designed to prepare individuals for gaining employment as semi-skilled or skilled workers or technicians or subprofessionals in recognized occupations in new or emerging occupations . . . but excluding programs to prepare individuals for employment in occupations which require a baccalaureate or higher degree.[32]

Summary and Overview

In chapter 1 the research identified the need for educational goals that emphasize preparing vocational teachers to work with students having special needs. The need for inservice education and training that would modify teachers' positive attitudes toward creating the optimum learning environment in which students could develop their maximum educational potential was identified.

The objective of the study was to determine whether teachers who had attended a Vocational Education/Special Education Workshop would develop higher positive attitudes toward special needs students as a direct result of having attended such a workshop. The study was also designed to determine whether or not there was a relationship between the independent variables (age, sex, formal level of education, treatment cluster) and the dependent variables (level of regard and unconditionality of regard). Another objective of the study was to provide information for decision makers and programmers in the field of vocational education for students with special needs, with emphasis on inservice teacher education at the secondary and post-secondary levels.

The author's purposes in this study in relationship to the defined need were also described. The significance of the study, hypotheses, delimitations, and definitions of terms were included as well.

Chapter 2 contains a review of the research literature related to the author's purpose in this present study. In chapter 3 the design of the study is established by explaining the methodology and procedures used to test the hypotheses formulated for the study. In

chapter 4 the findings of the interpretation of results, based on the analysis of the data obtained for this study, are detailed. The hypotheses of the study are also tested. A summary of the study, conclusions and recommendations are given in chapter 5.

NOTES

[1]Lori Case vs State of California, Civil No. 13127. Court of Appeals, Fourth Dist. Calif., Filed Dec. 14, 1973.

[2]Public and Local Acts of the Legislature of the State of Michigan (Lansing, Michigan: Legislative Service Bureau, 1971), p. 11.

[3]Evaluation Report--Michigan Vocational Educational Special Needs Programs, 1973-74 (Lansing: Michigan Department of Education, 1974), p. 4.

[4]Guidelines for Vocational Education Programs for Persons with Special Needs for FY 1973-74 (Lansing: Disadvantaged and Handicapped Programs Unit, Vocational-Technical Education Service, Michigan Department of Education, October 1974), p. 8.

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CHAPTER II

REVIEW OF RELATED LITERATURE

The review of literature covered three areas of inquiry pertinent to the topic of this study. They were: literature on justification for the study; literature concerning recommendations to improve the preparation of teachers and students with special needs; and, literature related to the effect of inservice training on interpersonal relationship factors.

Literature on Justification for the Study

It is not enough to know that there has been some measurable change in attitude; usually we would also want to know what kind of change it has been. Has it been a superficial change, on a level which disappears after a short lapse of time? Or has it been a lasting change in attitude and belief which manifests itself in a wide range of situations and which has been integrated into the person's value system? Or, to put it in other terms, did the communication produce public conformity without private acceptance; or did it produce public conformity coupled with private acceptance (Festinger, 1973)?[1] Only if we know something about the nature and depth of change can we make meaningful predictions about the way in which attitude changes will be reflected in subsequent actions and reactions to events. These questions about the nature of attitude changes have been significant in the study of educational attitudes.

Research on Teacher Attitudes

If the perception of students held by the teacher influences the academic, social and emotional growth of the student; then we need to know these perceptions and attitudes prior to the time teachers are faced with exceptional children in their classrooms. If the attitudes of teachers are unfavorable toward handicapped and disadvantaged persons, then means may be sought to change the unfavorable attitudes.

A considerable amount of research has been conducted in the past decade on attitude measurement and the modification of attitudes. Studies of attitudes related to ethnic, religious, and cultural groups constitute approximately 80 percent of the total. Investigations of attitudes toward specific disability groups, such as the blind, the deaf, or the mentally retarded, make up about 5 percent of the studies. Attitude studies concerning the disabled in general constitute less than 1.5 percent of the total (Saunders 1975).[2] One of the most comprehensive analyses of the attitudes of educators toward exceptional children was conducted by Haring, Stern and Cruickshank (1958).[3] They stated that the attitudes of regular classroom teachers with whom exceptional children have been placed presented a vital consideration which had not been explored. These authors further stated that the attitudes which teachers have are reflected in their behavior, and influence strongly the social growth of exceptional children.

The relationship between teachers' attitudes and student achievement was studied by Helton and Oakland (1977).[4] Their experiment considered attitudinal responses of attachment, rejection, concern, and indifference among fifty-three elementary teachers as evoked by

sixteen descriptions of students. These students differed in personality characteristics, academic achievement, and sex. The analysis of variance on the data showed interaction for student personality characteristics on all four teacher attitudes. It also showed main effects for academic achievement on three teacher attitudes. Helton and Oakland (1977)[5] concluded that:

> Students' personality characteristics most strongly influence teachers' attitudes of attachment and rejection; academic ability most strongly influences teachers' attitude of concern; while academic ability and personality characteristics influences teachers' attitude and indifference (p. 261).

The four types of attitudes mentioned here (attachment, rejection, concern, and indifference) were first investigated by Silberman (1969)[6] Brophy and Good (1970)[7] and Willis and Brophy (1974).[8]

Silberman found that "attachment" students (those whom teachers would like to keep another year) were model students. "Indifference" students (those toward whom teachers felt indifferent) were characterized by infrequent interaction with teachers. "Concern" students (those about whom teachers worried) were low-achieving and demanding. And "rejection" students (those whom teachers would be relieved not to have) were considered behavior problems in the classroom.

Brophy and Good found that the students whose teachers felt attachment toward were relatively high in academic achievement, actively sought teacher attention in relation to subject matter assignments, and refrained from answering aloud without permission. In contrast, Brophy and Good found that the students whose teachers felt rejection toward them were relatively low in academic achievement, initiated numerous and unnecessary contacts with teachers and answered

aloud without permission.

Silberman suggested that rejection involves teachers' perception that the student is undeserving of his/her professional attention due to his overwhelming and inadequate demands of his/her time. Brophy and Good also found that the students whose teachers felt concern toward were relatively low in academic achievement and initiated frequent contact with teachers. Silberman proposed that concern involves the teachers' belief that the student is making extensive but appropriate demand of his/her time. Finally, Brophy and Good found that the students whose teachers felt indiffererence toward were relatively passive compared to their classmates, and their academic achievement was considered to be average.

Literature on Disadvantaged Students

The investigation of Gies and Alspaugh (1973)[9] and Langeveld and Bollman (1969)[10] offered some information about the role and attitudes of teachers and the identification and delineation of values which teachers held concerning the disadvantaged pupils whom they teach. Long and Long (1973)[11] conducted a study on teacher candidates' attitudes regarding poverty and the disadvantaged. They found that most teacher candidates: (a) viewed the impoverished as being, at least partially, responsible for their situation; (b) are not generally supportive of economic equality; (c) feel that teachers are capable of differentiating advantaged from disadvantaged students in the classroom; (d) perceived the disadvantaged student as being the victim of discrimination in school; (e) viewed activism by the handicapped as an effective political alternative; and (f) are relatively ignorant

in their factual knowledge of poverty and the disadvantaged.

Riessman (1962)[12] contended that disadvantaged children accurately perceive their teachers' attitudes of rejection toward them. He suggested that this perception of rejection is reflected in a lowering of self-image and seems to affect achievement and classroom behavior negatively. Gordon (1965)[13] described the disadvantaged child as fearing the teacher who was ignorant of his culture and who did not understand or respect him. A study by Van Der Meer and Wit (1963)[14] discovered that many teachers become obsessed with their pupils' academic deficiencies. The teachers then expressed their disappointment in front of the class, thereby confronting the pupils emotionally with feelings of failure; uncertainty and carelessness increase, and pupils develop a negative attitude toward the learning situation.

Clark (1963)[15] said teachers who were required to teach children from culturally deprived backgrounds held a pervasive negative attitude toward these children. Teachers believe that these children cannot learn because of poor heredity, poor home background, cultural deprivation, and low IQ.

Confirming this point of view, Kirsch (1976)[16] concluded that many teachers now teaching lower socio-economic class groups hold negative attitudes toward these groups. Teachers have been reluctant to accept assignments in lower-socio-economic class compositions, and, if assigned, they frequently refused the assignments or have left after a brief experience.

Through an investigation of teacher attitudes toward inner-city children, the Michigan Study Research Center at the University of

Michigan found that teachers' attitudes toward minority groups were negative. Other significant findings of this study were that (1) teachers held negative attitudes toward their pupils in classes with a larger proportion of black pupils than white pupils, and (2) the higher the number of black pupils in a class, the lower the teachers' rating of their pupils' academic ability and motivation.[17] The Report of the Detroit High School Study Commission pointed out that attitudes of most teachers reflected frustration, despair, and low expectations of their students and of themselves, and that this has been one of the most significant problems facing the Detroit school system.[18]

In exploring teachers' attitudes and their effect on students, Brookover developed a theory of "significant others."[19] He theorized that each individual in society learns certain types of behavior--those he considers appropriate for himself. The appropriateness of his behavior was defined for him by the internalization of the expectations of "significant others," i.e., those people who were important to him. Further, the theory of "significant others" states that the individual also takes on the attitudes of "significant others," and behaves in accordance with his conception of how he feels his "significant others" see him.

Literature on Personnel Training for Students with Special Needs

The average teacher's cultural life has been different from that of a student who has been identified as having special needs. One's training (e.g., education courses and student teaching) seldom prepares one to meet the multiple problems associated with special needs

students. Tiedt wrote of the culturally different:

> The teacher must be prepared to work with children whose values and attitudes are different from his. It would seem that the teacher of the disadvantaged must be very carefully chosen and trained. . . .[20]

McCracken and Brown supported this viewpoint when they stated: "The essential ingredient underlying successful curriculum development and adoption rests heavily on the shoulders of well-prepared teachers."[21]

In 1973, Schmitt brought out the fact that teachers are not being prepared to meet the special needs of minority populations. He stated:

> Few university teacher education programs have adjusted their professional courses or field experiences to prepare "new" teachers to cope with the specific learning, cultural, sociological, behavioral and professional situations unique to specific minority populations. Consequently, many new teachers dealing with the culturally different have not received adequate or realistic teacher preparation in breaking down stereotyped thinking; in developing an appreciation of the resourcefulness of a culturally different society.[22]

One of the first innovative experimental programs in special needs teacher education was Operations Fair Chance, undertaken at two California State colleges. The objectives of that program were:

> . . . to help prospective and experienced teachers develop truly empathic attitudes toward the culturally deprived, to find more effective ways of teaching disadvantaged children and youth and of working with their parents and community leaders, to emphasize realistic pupil orientation to the world of work and to produce new learning materials in this area. . . .[23]

With funds allocated under the Vocational Education Amendments of 1968; many school districts, colleges, and universities inaugurated vocational education programs for students with special needs. These programs created a need for instructional personnel with specific

training in this area.

The National Curriculum Development Project for Vocational Education of Disadvantaged and Handicapped Students comprised a series of one-week workshops held nationwide, beginning in July 1971 and ending in November 1972; 1,224 vocational educators attended these sessions. The project was one of many endeavors designed to help train instructional personnel to teach students with special needs. Its goal was ". . . to train a nucleus of vocational educators in developing curriculum and learning materials for disadvantaged or handicapped students. . . ." The project was unique in four respects:

1. It was a unified, concerted teacher-training and development effort conducted on a national scale.

2. It was planned specifically for inservice training of teachers of disadvantaged and/or handicapped students enrolled in vocational classes.

3. The project accomplished more than expected--at less cost than anticipated.

4. The training was conducted by personnel who were not formally associated with the staff or faculty of the traditional teacher training institutions or universities.[24]

Typical comments made by those who participated in the "human awareness" learning activities component of Project Workshops were:

> The workshop made me more aware of the unusual problems that the disadvantaged students face. I feel that I am better prepared to relate to these students now.
>
> I learned how to deal with students on a more personal, individual basis. I became more aware of the different learning capabilities of each student and how to handle each separately.
>
> I realized that disadvantaged and handicapped students do not need or want sympathy. I saw that empathy was a much more constructive attitude.[25]

Literature Concerning Recommendations to Improve the Preparation of Teachers of Students with Special Needs

> The right to education, when it is implemented, will bring into our special education orbit those children and adolescents who were not previously considered to have the necessary academic potential; or even to be capable of acquiring the basic life skills for community living; or who are not of the traditionally prescribed age for education. Many special educators never before saw them. . . . They were invisible. (Goldberg & Lippman, 1974, p. 331).[26]

Attempts to Modify Educators' Attitudes

Lane (1976)[27] showed that a background in special education can help alleviate stereotypes of prejudices toward exceptional children. This study investigated the effects of labels conveying ethnic group membership and retardation on evaluative statements made by prospective teachers. All the raters had completed student teaching and had dual majors in elementary education and special education. No statistical differences were found, and it was concluded that neither the label nor the ethnic identification significantly affected ratings. The data supported the notion held by Payne and Murray (1974)[28] and Kraft (1973)[29] that lack of experience in the area of special education was the main contributor to many educators' fears and prejudices.

One of the greatest challenges for the teacher of students with special needs was helping pupils develop positive attitudes. The AMIDS Report indicated: ". . . the teacher of the special needs student needs new insight and increased sensitivity to the deep, inner feelings and attitudes of the disadvantaged or handicapped person."[30]

Hagadone supported this viewpoint when he wrote:

> There is little doubt that attitudes are, in large part, a major contributing factor in the effectiveness of the teacher and the learning process. The role of the teacher to teach students and his responsiveness to this role is a unique occasion between these two people and cannot be duplicated.[31]

Schmitt agreed with this viewpoint when he stated:

> It is imperative that attitudinal changes become the target for effective preparation of teachers serving culturally different populations. Acceptance, respect, compassion, understanding, and empathy are foremost attributes with pedagogical skills representing secondary attributes. . . .[32]

Tuckman and O'Brien noted that "the all-important area of attributes is one in which a teacher can make major inroads into this problem of the culturally deprived. . . ."[33]

Riessman, in his five-point plan for teachers of the poor, supported this viewpoint when he wrote: ". . . it is not enough to build respect and knowledge; teachers' attitudes must also be changed. . . ."[34]

Feck recommended that the teacher of disadvantaged youths must have faith in the students' ability to learn and succeed, a strong desire to teach the disadvantaged, and have respect, understanding, and empathy for them.[35]

Harasymiw (1976)[36] found that teachers' opinions and attitudes on mainstreaming could be modified through an inservice program designed to provide teachers with new knowledge about handicapped children and classroom experience in working with special needs children. It was found that while teachers became more liberal in their opinions and assessments of the manageability of the disabled student in the classroom, their basic attitudes toward disability groups were not changed. These findings seem to indicate that inservice education may

make teachers less anxious in working with handicapped children, yet a more prolonged procedure of familiarization with various disability groups may be needed to modify underlying social biases.

In 1972, Glass and Meckler[37] conducted a summer workshop preparing teachers to instruct mildly handicapped children in regular classrooms. The major goals were to equip the teachers with diagnostic, remedial, and behavioral management skills and to modify the teachers' use of authority in the classroom. The pre- and post-workshop administration of the Minnesota Teacher Attitude Inventory and a self-report inventory constructed by Glass and Meckler were used to evaluate the effects of the workshop. At the close of the workshop, the trainees perceived themselves as having made substantial gains in all of the workshop objectives. In the area of attitude and beliefs, it appeared that trainees viewed themselves as more competent in their ability to teach mildly handicapped children in the regular classroom, and more attracted to the notion of mainstreaming. It was suggested that specific skills, relative to the instruction of mildly handicapped children, can be isolated and taught to teachers in a relatively short period of time. Moreover, it may be noted that such skill acquisition was accompanied by positive change toward exceptional children.

In a study conducted by Hill (1963)[38] the following requisites for preservice preparation programs for teachers of the underprivileged were formulated:

1. The preservice preparatory programs of teachers of the underprivileged should provide for the development of special methods, and special experiences.
2. Teachers should develop realistic expectations for the behavior of underprivileged children during their

preservice training.

3. Personnel selected to instruct in programs for teachers of the underprivileged should have experience in, and be acceptable in, both lower and middle class cultural patterns of behavior.

In the same study, Hill made these recommendations for inservice training of teachers of the underprivileged:

1. One phase of a strong ongoing inservice program should be to acquaint the teachers with the specific characteristics of the community they serve and the implications of these characteristics for the school.

2. Each individual school should develop a curriculum emphasis designed to serve the needs and problems of the underprivileged in the school.

3. Administrators of schools serving underprivileged children should reinforce the idealistic beliefs and attitudes of their teachers by referring to the social significance of their service. . . .[39]

Kruppa recommended that a curriculum for teachers of children with special needs should include three categories: (1) General Education, (2) Professional Education, and (3) Specialization which could include either industrial arts, vocational education, or both; and special education.[40] The Education Policies Commission of the National Education Association and the American Association of School Administrators published the following statements concerning education of teachers of the disadvantaged:

1. The preservice programs of teacher education should seek to develop in each student a sense of genuine respect and empathy for the children he will teach.

2. Teacher education should include observation and practice in teaching and otherwise working with the disadvantaged.

3. Teacher education should include experience in a disadvantaged community outside the school.

4. Inservice education should enable teachers consistently to improve their understanding of their pupils. Teachers should acquaint themselves with the living conditions of their pupils and try to relate their knowledge of sociology and psychology to those conditions.[41]

In a five-point plan for preservice and/or inservice training of teachers of the poor, Riessman included the following:

1. Building teacher respect for disadvantaged children and their families. This involves attitude change and a proposed method of producing it.

2. Supplying teacher experiences with the disadvantaged.

3. Some general do's and don'ts in teaching the urban poor.

4. A teaching technology appropriate for low-income youngsters.

5. The development of a variety of teacher styles through integrating other parts of the plan with the idiosyncratic potential of each teacher. This concerns the art of teaching and how it can be developed and organized.[42]

In discussing mainstreaming and teacher training, Edwin Martin (1974) wrote:

> In the majority of handicapped children--the mildly and moderately retarded, the children with behavioral disorders, the children with language and learning problems, the children with orthopedic difficulties--are to be spending most or much of their time in regular classrooms, there must be massive efforts to work with their regular teachers, not to just "instruct them" in the pedagogy of special education but to share in the feelings, to understand their fears, to provide them with assistance and materials, and, in short, to assure their success.[43]

Donald Maley, head of Industrial Education at the University of Maryland, indicated that vocational teachers . . .

> will need specialized courses in the area of Special Education, Sociology, Economics, and Communications to prepare for teaching assignments in groups with special needs students. This may involve one or more forms of community study or work experiences. . . .[44]

Edmund Gordan, chairman of the Department of Guidance, Teachers College, Columbia University, in a presentation at the Second Annual National Vocational-Technical Education Seminar, suggested that ". . . sensitivity training should be an early and continuous part of teacher training programs."[45]

Scales, in a study of universities and colleges to determine the effectiveness of student teachers, supported the notion of Gordan when he concluded: "All institutions educating teachers must continue to give attention to the personality of prospective teachers, and incorporate into their programs sensitivity training and/or human relations components. . . ."[46]

Deno (1973)[47] advocated that teachers who have not been prepared at a preservice level for mainstreaming, but who are expected to participate in such programs, should be provided with the opportunity to make up the deficiency in inservice education programs.

Effective and Non-Effective Teachers of the Special Needs Students

Research in the area of teacher effectiveness has in general been concerned with the isolation of a limited number of variables in an attempt to identify those teachers who have been effective. There have been two important reasons for this type of investigation. The first has been the investigator's limiting interests to certain teacher attributes that they are most concerned with and which they believe contribute to teacher effectiveness. The other reason has been the limiting statistical analysis available at the time the majority of these investigations were done.

Second, research has produced little evidence to help relate teacher effectiveness to specific teacher characteristics. Ryan (1942)[48] stated that this is due to the fact that the information gathered on teacher characteristics has been done in a piecemeal; and, often haphazard, manner on a limited number of teacher characteristics and that the researcher too often limits his study to personal preferences rather than an objective evaluation of specific behaviors. Ryan (1963)[49] included these qualities in his list of characteristics essential in the classroom behavior of teachers: warm, understanding, systematic, responsible, stimulating, and imaginative. Getzel (1955)[50] felt that part of this problem was that research in this area has dealt too long with the self-evident traits and attitudes (e.g., warm, friendly, understanding) and not enough with the specific distinctive features of teachers' personalities and attitudes.

A study by Blackwell (1972)[51] investigated the attitudes, characteristics, and personalities of seventy teachers of the trainable mentally retarded. The use of multiple regression analysis allowed the investigation to evaluate the unique contribution of forty-two teacher variables to the criterion variable, teacher effectiveness.

The following were the findings based on the statistical analysis of the data collected from the teachers of the trainable mentally retarded. A high score on the Minnesota Teacher Attitude Inventory (MTAI) was related to teacher effectiveness.

The following characteristics were found to be significant:

1. Women teachers were rated higher than men teachers.
2 Those teachers teaching at the preschool level are more often rated as effective teachers. The teachers

at the vocational level are rated more often as ineffective teachers.

3. The number of years that these teachers attended school did not contribute to teacher effectiveness.

4. The years of teaching experience of these teachers did not contribute to teacher effectiveness.

5. The teacher's previous teaching experience in different areas of education did not contribute to teacher effectiveness.

6. Previous contact with exceptional children before becoming teachers did not add to teacher effectiveness.

7. Knowledge of teacher occupation before employment has little to do with teacher effectiveness.

8. Knowledge of a teacher's previous training with secondary level students, special education, mentally retarded, or other teaching areas did not add to predictability of teacher effectiveness.

9. Knowledge of a teacher's previous training at the preschool, lower primary, and upper primary levels is related to the predictability of teacher effectiveness.

10. The type of degree that these teachers have does not increase the predictability of their being effective teachers.

11. A teacher's interest in a number of hobbies does not add to teacher effectiveness.

There was a difference between the attitudes of those teachers who have been ineffective teachers. This conclusion based on the findings that the effective teachers of the trainable mentally retarded obtained higher scores on the Minnesota Teacher Attitude Inventory in comparison to the ineffective. This higher score on the attitude measurement would indicate that the effective teacher had better pupil-teacher relationship than those teachers rated as ineffective, as the inventory measures pupil-teacher relationships. The effective teachers of the trainable mentally retarded had had previous training

in preschool, lower, primary, and upper primary areas in college.

This study has certain implications for employing agencies, institutions of higher learning, and certifying agencies concerned with teachers of the trainable mentally retarded. It would appear advisable to consider a prospective teacher's performance on the Minnesota Teacher Attitude Inventory. A teacher's previous or prospective training at the preschool, lower primary, and upper primary levels of educational preparation should also be studied and considered.

Dixon and Morse found in their study that

> . . . pupils and supervising teachers considered student teachers with good empathy to be better teachers than those with poor empathy. In other words, the student teachers who have developed very positive feelings toward their appraisal of themselves as teachers.[52]

Wampler's study supported Dixon and Morse's conclusions concerning preservice teacher training. The findings of Wampler's study showed:

> (1) those subjects with a substantial preservice experience in a disadvantaged school demonstrated a more positive attitude toward teaching in similar schools, and had more positive attitudes about their students, and felt far more adequate in their teaching situations; (2) those subjects having a limited preservice experience did indicate that they were better prepared when compared with the no preservice group, but did not differ markedly as did those subjects who had the student teaching experiences; and (3) those subjects with the preservice student teaching were found to be rated as more effective teachers and appeared to be more willing to accept a position in schools for the disadvantaged following certification.[53]

Kemp (1966)[54] listed ten qualifications for teachers of the disadvantaged:

1. Competence in the subject matter and work skills in their field of specialization.

2. Interest in working with young people who have special problems.

3. Ability to reinforce the slow learner and to refrain from responding only to those students who respond to them.

4. Ability to seek and find additional techniques to enable them to communicate with all students.

5. Skill in presenting goals to the students and in helping them to meet challenges.

6. Ability to measure students by their individual achievements without lowering the standards for the class.

7. Special training or knowledge for work with the disadvantaged, including an understanding of their way of life.

8. Ability to work with other school personnel to increase the effectiveness of their work.

9. Willingness to use instructional materials geared to the understanding of their students and patience to work with the slow learner.

10. Skill in working with students to build up their self-concepts, in seeking hidden strengths, and in helping to channel these in productive directions.

Schmitt made the following recommendations concerning teacher education programs to prepare teachers of culturally different individuals:

1. Vigorous efforts must be placed on recruiting and selecting teachers from the ranks whom they serve.

2. Professional teacher preparation curricula for the culturally different must provide a wide array of courses, field experiences, and activities.

3. Teacher preparation institutions and agencies for the culturally different must provide a continuum of educational experiences from entry to retirement.

4. Teacher preparation for the culturally different must prepare the teacher to genuinely utilize parental involvement in developing realistic educational experiences for their children.

5. Early involvement with culturally different children, youth, and adults must be an important element in teacher preparation for beginning teachers enrolled in agencies and institutions designed to meet the needs of the culturally different.

6. Teacher preparation programs for the culturally different must be designed so that the teacher has an excellent chance for success.

7. Beginning teachers of the culturally different must become increasingly "person oriented" and "student centered."

8. Teacher preparation for the culturally different must become a cooperative venture between local school systems, state departments of education, universities, industries, and community organizations.

9. Teacher education for the culturally different must establish state, regional and national councils to insure a political power base from which adequate financing can be secured.[55]

Literature Related to the Effect of Inservice Training on Interpersonal Relationship Factors

One of the factors working against placing the handicapped in the regular vocational education classrooms has been the regular vocational educators' lack of training in working with the handicapped. Most vocational teachers have not had special training in this area, and have been reluctant to accept the handicapped into their classrooms.

Because integration of the handicapped into the regular education program has been mandated by Federal and State law and has become necessary if the handicapped are to be served adequately, vocational education must prepare vocational educators to effectively deal with the handicapped.

Goals for Training Regular Vocational Teachers

Two important goals for training regular vocational teachers have been (1) overcoming negative attitudes teachers have toward the handicapped, and (2) providing educators with techniques for instructing the handicapped. Like regular classroom teachers, vocational educators can get the needed training through inservice instruction.

Teacher training has been a difficult task; the assignment has been more difficult when it encompassed training teachers to work with students who have handicapping conditions.

Literature on Inservice Teacher Training

A significant early effort to provide emotional supportiveness and social skill building for special education teachers in training was carried out by Fagen and Long,[56] who built a human relations training component into an experienced-based special education master's degree program. It was in response to such recognized special education teacher training needs and possibilities that the Interpersonal Skills Workshop at Southern Connecticut State was developed.[57] To evaluate the effectiveness of the workshop, the following hypotheses were tested:

> If student teachers participate in an Interpersonal Skills Workshop, then: (1) their general interpersonal skills increase; (2) their self-acceptance increases; (3) their acceptance of others increases; and (4) their classroom interpersonal skills increase.[58]

Findings were that short-term human relations training significantly increased special education student teachers' self-evaluation interpersoal skills and acceptance of self and others. These findings supported Cropper, et al.[59] recommendations made to supplement courses

and student teaching experiences that meets students needs for social and emotional growth and interpersonal skills.

As a result of her study of the effects of interpersonal relations training on prospective teachers, James found:

> Fifty-four hours of interpersonal relations training was adequate to significantly increase levels of accurate empathy, non-possessive warmth, and total interpersonal skills.[60]

Fischle's study of attitude and behavior change of teachers who had attended an NDEA institute for teachers of disadvantaged children led her to conclude that "there was a significant change (.01 level) in teachers' attitudes toward the teacher-pupil relationship as measured on the MTAI."[61] She also reported the following experiences have been valuable in promoting the desired changes in attitudes and behaviors when dealing with disadvantaged and handicapped students:

1. The in-residence experiences afforded continuous interaction with other inner city teachers and staff members.

2. Practicum experiences which included working with one child, groups of children, and observation of children in the child's environment fostered a greater understanding and acceptance of children.[62]

Bishop supported the observations of Fischle when he reported:

> Positive significant relationships were found between the ratings of white teachers by the white students with respect to empathy, congruence, and student regard and a positive significant relationship between black teachers and black students with respect to student regard were found.[63]

Soloway found in a study entitled "The Development and Evaluation of a Special Education Inservice Training Program for Regular Classroom teachers":

> A special education inservice training program can be effective in improving reactions and attitudes of

> regular classroom teachers related to integration of EMR and EH children into regular classrooms.[64]

In a study that looked at the effects of Minnesota's mandatory human relations training on the attitudes of the state's certificated teachers, Blackburn found:

> 1. Trained teachers tend to be more aware of discrimination in the school setting than teachers who have not completed human relations training.
>
> 2. . . . new teachers and teachers with eleven years of teaching experience tended to score lower than teachers in the middle ranges of years of teaching.
>
> 3. Several significant interactions also occurred. . . . These interactions suggest that human relations training had differential effects on specified groups of teachers.[65]

Lee reported in his study of the effectiveness of sensitivity training in a human relations program for inservice teachers:

> Comparing the effectiveness of sensitivity training with the control group, it was found that teachers in sensitivity training improved their scores on the MTAI significantly more than did those in the control group. . . . Teachers in sensitivity training increased in self-esteem, or self-value, . . . significantly more than did those in the control group. Comparing the effectiveness of sensitivity training with the conventional class in human relations, sensitivity training was found superior in reducing student absenteeism . . . with near significant trends favoring sensitivity training in improving MTAI scores and teachers' self-esteem measures on the Q-Sort instrument.[66]

In a study that involved designing an inservice training package for teachers of children with learning disabilities, Wilson stated:

> The inservice package developed and revised in this study has been shown to provide an effective method for presenting theories and models which teachers can apply to the educational needs of learning disabled children. . . .[67]

Young supported this viewpoint, she concluded:

> It may be stated that this inservice education consultation program was highly effective with respect to development of positive teachers' attitudes and abilities to recognize and accommodate problem learners. . . .[68]

Ponder conducted research on the effects of special inservice training programs for work with disadvantaged children, he concluded:

> . . .there is a critical need for colleges and school systems, in partnership, to plan and implement a deliberated well-organized ongoing inservice education program for all teachers to attack the overall problems of educating children in slum and racial minority ghetto environs.[69]

Harawymiw (1976)[70] found that teachers' opinions and attitudes on mainstreaming could be modified through an inservice program designed to provide teachers with new knowledge about handicapped children and classroom experience in working with special needs children. It was found that teachers became more liberal in their opinions and assessments of the manageability of the disabled student in the classroom.

From the studies and articles discussed in this chapter, the following implications seem to be apparent:

1. A general attitude of acceptance, as well as organized programs of awareness and public information and inservice education will be critical to successful implementation of the intent of Congress, relative to the Education for all Handicapped Children Act of 1975, Public Law (P.L.) 94-142.

2. Inservice training for regular classroom teachers must be given top priority.

3. Training regular staff in special education is vital. With the focus on mainstreaming handicapped children into regular classes, teachers must be aware of their needs, concerns, and problems.

4. Preservice preparatory programs for vocational teachers of students with special needs should provide for the development of special knowledge, methods, and experiences; i.e., field experiences, idealistic beliefs and attitudes, and creative programs.

5. Colleges and universities with preservice preparatory programs for vocational teachers should design a curriculum that will lead to dual certification in vocational education and special education.

6. There needs to be some longitudinal studies of the effect of inservice training on the lasting effects of change in teacher attitude and behavior, relative to the disadvantaged and handicapped student.

In chapter 3 the design of the study is established by explaining the methodology and procedures used to test the hypotheses formulated for the research.

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CHAPTER III

DESIGN OF THE STUDY

In the preceding two chapters, the problem and the review of the literature in related areas were presented. In this chapter the author details specifically the manner in which the sample group for the study was selected, how the instrument was chosen, the manner in which the data for the study were collected, and the procedures followed in handling the data.

This study sought to find answers to many questions which were important to special needs programs. Beyond this, trends and implications were examined to find answers to questions generated and/or presented.

One of the author's purposes in this study was to determine whether teachers who attended a Vocational Education/Special Education Workshop would improve in their attitudes toward special needs students enrolled in their vocational classes through attending such a workshop. It was hypothesized that teachers who attended a Vocational Education/Special Education Workshop would score higher on selected interpersonal relationship factors than would teachers who had not attended a Vocational Education/Special Education Workshop. The dependent variables used in this study were level of regard and unconditionality of regard. Independent variables used in this study were: occupational cluster, sex, formal educational level, treatment, and age of the teacher.

Another purpose of the research was to provide information and make recommendations for decision makers and programmers in the field of vocational education for students with special needs, with emphasis on inservice teacher education at the secondary and post-secondary levels.

Research Hypotheses

The central hypothesis tested in this study was:

H 1 There will be no significant difference between teachers teaching in special needs programs who have attended a Vocational Education/Special Education Workshop and vocational teachers teaching in special needs programs who have not attended a Vocational Education/Special Education Workshop.

H 1.1 There will be no significant difference between teachers teaching in special needs programs who have attended a Vocational Education/Special Education Workshop and vocational teachers teaching in special needs programs who have not attended a Vocational Education/Special Education Workshop on the dependent variable level of regard.

H 1.2 There will be no significant difference between teachers teaching in special needs programs who have attended a Vocational Education/Special Education Workshop and vocational teachers teaching in special needs programs who have not attended a Vocational Education/Special Education Workshop on the dependent variable unconditionality of regard.

H 2 There will be no significant difference among vocational teachers teaching in different vocational clusters.

H 2.1 There will be no significant difference in teachers teaching in cluster 2 (clothing and textiles/food services/family ecology) and cluster 4 (health occupations/child care and development) and cluster 5 (office education/business education/distributive education) on the dependent variable level of regard.

H 2.2 There will be no significant difference in teachers teaching in cluster 2 (clothing and textiles/food services/family ecology) and cluster 4 (health occupations/child care and development) and cluster 5 (office education/business education/distributive education) on the dependent variable unconditionality of regard.

H 3 There will be no significant interaction effect between occupational cluster and treatment (control and experimental).

H 3.1 There will be no significant interaction effect between occupational cluster and treatment on dependent variable level of regard.

H 3.2 There will be no significant interaction effect between occupational cluster and treatment on dependent variable unconditionality of regard.

H 4 There will be no significant difference in the positive attitudes of male and female teachers teaching in vocational classes in special needs programs.

H 4.1 There will be no significant difference in the positive attitudes of male and female teachers on the dependent variable level of regard.

H 4.2 There will be no significant difference in the positive attitudes of male and female teachers on the dependent variable unconditionality of regard.

H 5 There will be no significant difference in teachers teaching in special needs programs who have received masters degrees and beyond and teachers teaching in special needs programs who have received less than a masters degree.

H 5.1 There will be no significant difference in teachers teaching in special needs programs who have received masters degrees and beyond and teachers teaching in special needs programs who have received less than a masters degree on the dependent variable level of regard.

H 5.2 There will be no significant difference in teachers teaching in special needs programs who have received masters degrees and beyond and teachers teaching in special needs programs who have received less than a masters degree on the dependent variable unconditionality of regard.

H 6 There will be no significant interaction effect between sex and formal level of education.

H 6.1 There will be no significant interaction effect between sex and formal level of education on the dependent variable level of regard.

H 6.2 There will be no significant interaction effect between sex and formal level of education on the dependent variable unconditionality of regard.

H 7 There will be no significant difference between teachers teaching in special needs programs who are 39 years old or less and teachers teaching in special needs programs who are 40 years old and older on the dependent variable level of regard.

H 8 There will be no significant difference between teachers teaching in special needs programs who are 39 years old or less and teachers teaching in special needs programs who are 40 years old and older on the dependent variable unconditionality of regard.

Analysis Procedures

A pre- and post-test was administered to both the control and the experimental group. Analysis of covariance was computed for data collected in the study, using the pretest scores as the covariate. In presenting the results of the data a 0.05 level of significance was used as the criterion of the significance of the stated hypotheses.

Chi Square was computed for hypotheses seven and eight. Spearman Rank Correlation was computed to test for correlation between age and education and the variables level of regard and unconditionality of regard.

Population

The population included all vocational teachers for special needs programs in Michigan schools operating state reimbursed special needs programs during the 1978-79 school year. The eligible funding categories for the reimbursed programs were:

> State aid membership. Special Education Services supported by state Special Education and Intermediate reimbursement in most districts. Intermedicate Vocational Education millage where applicable. Vocational Education programs funds for districts and programs that qualify. . . . Vocational Education Special Needs Funds for approved projects. Eligible Vocational Rehabilitation clients may receive supportive services needed to maintain them in on the job training programs.[1]

In order to have an adequate number of subjects in all of the five occupational clusters used in the study, no distinction was made between the types of students served; e.g., handicapped, disadvantaged and/or a combination of both.[2] The program groups; handicapped and disadvantaged were all consolidated according to treatment--those who attended the Vocational Education/Special Education Workshop and those who did not attend the Vocational Education/Special Education Workshop.

Sampling Procedures

The names of all administrators (contact person) of special needs programs in school districts and post-secondary institutions in Michigan were obtained from the Disadvantaged and Handicapped Programs Unit, Vocational-Technical Education Services, Michigan Department of Education. The list indicated that there were 154 programs operated in the 1978-79 school year.

The administrators of these programs were asked to submit a list of teachers employed in their special needs programs. Eighty-four (54.5 percent) of the administrators returned the information requested. This request yielded 500 names, making up the group of potential teachers who could be used in the control group of the experiment; since they had not attended a Vocational Education/Special Education Workshop.

A Vocational Education/Special Education Workshop for teachers, paraprofessionals, administrators, and counselors was sponsored by the Disadvantaged and Handicapped Unit of the Michigan State Department of Education at the Northfield Hilton Inn in Troy, Michigan on March 22-23, 1979. Two hundred and ten persons were registered for this Workshop.

The Vocational Education/Special Education Workshop at Troy, Michigan was attended by the researcher on March 22-23, 1979, for the purpose of pre- and post-testing teachers for the experimental group. A systematic random sampling procedure was used to select a representative sample of 100 individuals from each of the two groups of vocational teachers--those who attended a Vocational Education/Special Education Workshop and those who had not attended a Vocational Education/Special Education Workshop.

One hundred questionnaires were mailed on February 5, 1979, with instructions to return the questionnaire at the earliest possible time. This first questionnaire was to serve as the pre-test. Ninety-five of these questionnaires were returned.

On March 5, 1979, five questionnaires were mailed to nonrespondents in an attempt to increase the number of responses to 100. None of these was returned. The total respondents to the pre-test was 95.

On March 20, 1979, 95 questionnaires were sent to the respondents to pre-test with instructions to return by April 5, 1979. Ninety-three of these questionnaires were returned.

On March 22-23, 1979, the Vocational Education/Special Education Workshop was held in Troy, Michigan by the Disadvantaged and

Handicapped Unit of the Michigan State Department of Education. This workshop was attended by the researcher for the purpose of pre- and post-testing the teachers who were to be in the experimental group of the study.

At the time of registration, 100 questionnaires were distributed to the teachers who had been randomly selected for the study and who would be in the experimental group. Ninety-three teachers returned their questionnaire after registration had been completed. On the last day, in the final session of the workshop, these ninety-three teachers who had completed the pre-test were given the post-test. Eighty-nine of these questionnaires were returned.

In summary, 100 teachers in the control group were sent questionnaires. One-hundred teachers were given questionnaires at the Workshop. Of the 100 teachers in the experimental group, 89 of them completed the pre- and post-test.

After the questionnaires were returned, they were grouped by program (handicapped, disadvantaged, or handicapped and disadvantaged), and were then scored (see Relationship Inventory Scoring Sheet, Appendix B).

The instrument used to measure the interpersonal factors in this study was the Barrett-Lennard Teacher-Pupil Relationship Inventory: Teacher Form (Appendix B). About 130 studies have been completed and perhaps another 100 are in the progress using this Inventory and/or direct adaptations of it.[3] The Inventory is available in two forms, each of which includes four variables. The teacher form assesses the teacher's self-perception with regard to the variables "congruence,"

"empathic understanding," "level of regard," and "unconditionality of regard."[4]

After consultation with Dr. Barrett-Lennard, the author of the instrument, the researcher decided to use two of the instrument's four variables. This reduced the instrument to thirty-two items, which were scored on a six-point agreement-disagreement scale, yielding total scores ranging from +48 to -48 and subscores of +48 to -48 for each of the two attitudinal variables (see Appendix B).

In addition to the level of regard and unconditionality of regard scales, selected normative data (age of the teacher, years of teaching experience, formal education level, and sex) were also solicited for the study (see Appendix B).

A pilot study was conducted during October, 1978 to determine if the instrument could be used for the present study. The pilot study was comprised of 30 vocational teachers in special needs programs from the Greater Lansing schools. Participants were instructed to make comments which dealt with the clarity, appropriateness, and comprehensiveness of the instructions of the instrument. In light of the comments and answers received, no adjustments to the instrument were felt to be necessary.

The instrument was administered to the control and experimental group as a pre- and post-test. Analysis of covariance was computed for the study, using the pre-test as the covariate. In presenting the results of the analysis of the data, a 0.05 level of significance was used as the criterion of significance of the stated hypotheses. Chi square was used to test hypotheses seven and eight of the study.

Spearman Rank Correlation was used to test the relationship between age and education and the dependent variables level of regard and unconditionality of regard.

The ten clusters included in the Vocational Educational/Special Education Project at Central Michigan University were consolidated into five for computational purposes, to eliminate the possibility of having empty cells. The consolidation is as follows, with the number of subjects in each cluster for both the control and the experimental group. For the control group the following number of subjects were tabulated for each cluster:

Cluster 1	Agriculture/Natural Resources	N = 11
Cluster 2	Clothing and Textiles/Food services/Family Ecology	N = 15
Cluster 3	Automotive and Power/Technical and Industrial/Construction	N = 24
Cluster 4	Health Occupations/Child Care and Development	N = 13
Cluster 5	Office Education and Business Education/ Distributive Education	N = 30

For the experimental group the following number of subjects were tabulated for each cluster:

Cluster 1	Agriculture/Natural Resources	N = 17
Cluster 2	Clothing and Textiles/Food Services/Family Ecology	N = 16
Cluster 3	Automotive and Power/Technical and Industrial/Construction	N = 17
Cluster 4	Health Occupations/Child Care and Development	N = 17
Cluster 5	Office Education and Business Education/ Distributive Education	N = 22

Summary

Described in this chapter were the research methodology, the instrument used to gather data necessary to test the hypotheses, and the type of statistical analysis used in testing the data gathered.

Chapter 4 details the findings and the interpretation of results based on the analysis of the data. The design of the study is shown in table 3.1.

TABLE 3.1.--Design of the Study--MANCOVA (Pretest as Covariate for Posttest)

Treatment	Cluster	Pretest Level of Regard	Covariate: Pretest Unconditionality of Regard	Covariate: Posttest Level of Regard	Covariate: Posttest Unconditionality of Regard
Control	1 = 11	31.64	7.45	32.27	10.18
	2 = 15	32.00	6.67	33.47	14.60
	3 = 24	29.37	6.04	30.00	9.42
	4 = 13	32.00	8.15	33.08	10.15
	5 = 30	28.60	2.57	29.43	6.63
N = 93					
Experimental	1 = 17	32.23	1.59	32.35	10.41
	2 = 16	32.06	2.25	34.56	7.87
	3 = 17	31.82	6.82	32.65	13.12
	4 = 17	31.65	7.06	32.00	15.65
	5 = 22	27.68	2.27	19.05	5.32
N = 89					

Cluster
1 Agriculture/Natural Resources
2 Clothing and Textiles/Food Services/Family Ecology
3 Automotive/Technical and Industrial/Construction
4 Health Occupations/Child Care and Development
5 Office Education/Business Education/Distributive Education

Notes

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CHAPTER IV

FINDINGS OF THE STUDY

One of the researcher's purposes in this study was to determine whether attending a Vocational Education/Special Education Workshop for instructional personnel in vocational programs for students with special needs has had a positive effect on selected interpersonal relationship factors. Another purpose was to provide information and recommendations for decision makers and programmers in the field of vocational education for students with special needs, with emphasis on inservice teacher education at the secondary and post-secondary levels. The study was also designed to explore the relationships found between the interpersonal relationship factors--level of regard and unconditionality of regard and the normative data. The normative data used in this study was age, sex, teaching experience, and formal level of education attained by the teacher.

The Teacher-Pupil Relationship Inventory: Teacher Form was used to obtain empirical data. The Inventory contains thirty-two items designed to measure the teacher's self-perception with respect to level of regard and unconditionality of regard. The Inventory was scored on a six-point agreement-disagreement scale and yielded total scores ranging from +48 to -48 and subscores of +48 to -48 for each of the two attitudinal variables (see Appendix B).

Data Analysis

In this chapter the data collected for the study were reported in an order related to the design of the study. The results of the statistical analysis were reported in tabular form. Tables revealing significant data, pertinent to the topic of this study, were included and discussed in the text.

Normative Data

Personal characteristics of the sample, which were used as normative data, were obtained from the personal data sheet attached to the instrument (see Appendix B).

The sample distribution by formal education level showed that for the control group twenty-one (21.7 percent) of the teachers had less than a bachelor's degree; thirty-nine (42.3 percent) of the teachers held bachelor's degree; twenty-eight (30.4 percent) of the teachers held master's degrees; and, five (5.6 percent) of the teachers held advanced degrees (see table 4.1).

The sample distribution by formal level of education showed that for the experimental group twenty-two (25.5 percent) of the teachers had less than a bachelor's degree; twenty-eight (31.1 percent) of the teachers held bachelor's degrees; thirty-one (34.4 percent) of the teachers held master's degrees; and, eight (9.0 percent) of the teachers held advanced degrees (see table 4.1).

The distribution of the sample by number of years of teaching experience revealed for the teachers in the control group that eight (7.6 percent) had one year or less; fourteen (15.1 percent) had

Table 4.1.--Distribution of the Sample by Formal Educational Level

Level of Education	Control		Experimental	
	No.	Percent	No.	Percent
Less than bachelor's degree	21	21.7	22	25.5
Bachelor's degree	39	42.3	28	31.1
Master's degree	28	30.4	31	34.4
Advanced degree	5	5.6	8	9.0
Total	93	100%	89	100.0%

two-three years; eleven (12.1 percent) had four-five years; twenty-five (27.2 percent) had six-nine years; and, thirty-five (38.0 percent) had ten years or more (see table 4.2)

The distribution of the sample by number of years of teaching experience revealed for the teachers in the experimental group that seven (9.0 percent) had one year or less; nineteen (21.1 percent) had two-three years; thirteen (14.4 percent) had four-five years; twenty-one (23.3 percent) had six-nine years; and, twenty-nine (32.2 percent) had ten years or more (see table 4.2).

Table 4.2.--Distribution of Sample by Years of Experience

Years	Control			
	No.	Percent	No.	Percent
1 or less	8	7.6	7	9.0
2-3	14	15.1	19	21.1
4-5	11	12.1	13	14.4
6-9	25	27.2	21	23.3
10 or more	35	38.0	29	32.2
Total	93	100.0%	89	100.0%

The distribution of the sample by age for the control group revealed that thirteen (14.0 percent) were 20-29 years old; thirty-four (36.5 percent) were 30-39 years old; thirty-one (33.3 percent) were 40-49 years old; eleven (11.9 percent) were 50-59 years old; and four (4.3 percent) were sixty years or older (see table 4.3).

The distribution of the sample by age for the experimental group revealed that twelve (13.3 percent) were 20-29 years old, twenty-six (29.0 percent) were 30-39 years old; twenty-eight (31.1 percent) were 40-49 years old; nineteen (22.2 percent) were 50-59 years old; and, four (4.4 percent) were sixty years or older (see table 4.3).

Table 4.3.--Distribution of the Sample by Age

Age	Control		Experimental	
	No.	Percent	No.	Percent
20-29	13	14.0	12	13.3
30-39	34	36.5	26	29.0
40-49	31	33.3	28	31.1
50-59	11	11.9	19	22.2
60 and older	4	4.3	4	4.4
Total	93	100.0%	89	100.0%

The distribution of the sample by sex for the control group revealed that fifty-two (55.4 percent) were male, and that forty-one (44.6 percent) were female (see table 4.4).

The distribution of the sample by type of program in which vocational teachers taught for the control group revealed that thirty-four (38.0 percent) taught in programs that included disadvantaged students; seventeen (17.4 percent) taught in programs which included handicapped students; and, forty-one (44.6 percent) taught in programs which

Table 4.4.--Distribution of the Sample by Sex

Sex	Control		Experimental	
	No.	Percent	No.	Percent
Male	42	55.4	51	46.7
Female	41	44.6	48	53.3
Total	83	100.0%	99	100.0%

included both handicapped and disadvantaged students (see table 4.5).

The distribution of the sample by type of program in which vocational teachers taught for the experimental group revealed that twenty-four (27.8 percent) of the teachers taught in programs which included disadvantaged students; twenty-five (27.8 percent) taught in programs which included handicapped students; and, forty (44.4 percent) taught in programs which included both disadvantaged and handicapped students (see table 4.5).

Table 4.5.--Distribution of the Sample by Program

Program	Control		Experimental	
	No.	Percent	No.	Percent
Handicapped	17	17.4	24	27.8
Disadvantaged	34	38.0	25	27.8
Combination	42	44.6	40	44.4
Total	93	100.0%	89	100.0%

The distribution of the sample by vocational cluster in which teachers taught for the control group revealed that eleven (11.9

percent) taught in cluster 1 (Agricultural and Natural Resources); fifteen (14.2 percent) taught in cluster 2 (Clothing and Textiles, Food Services, and Family Ecology); twenty-four (25.0 percent) taught in cluster 3 (Automotive and Power, Technical and Industrial, and Construction Trades); thirteen (14.2 percent) taught in cluster 4 (Health Occupations and Child Care and Development); and, thirty (32.6 percent) taught in cluster 5 (Office Education, Business Education, and Distributive Education), (see table 4.6).

Table 4.6.--Distribution of Sample Cluster

Cluster	Control		Experimental	
	No.	Percent	No.	Percent
1	11	11.9	17	19.1
2	15	16.3	16	17.9
3	24	25.0	17	19.1
4	13	14.2	17	19.1
5	30	32.6	22	24.8
Total	93	100.0%	89	100.0%

Cluster 1--Agriculture and Natural Resources
Cluster 2--Clothing and Textiles/Food Services/Family Ecology
Cluster 3--Automotive/Technical and Industrial/Construction
Cluster 4--Health Occupations/Child Care and Development
Cluster 5--Office Education/Business Education/Distributive Education

The distribution of the sample by vocational cluster in which teachers taught for the experimental group revealed that seventeen (19.1 percent) taught in cluster one (Agriculture and Natural Resources); sixteen (17.9 percent) taught in cluster 2 (Clothing and Textiles, Food Services, and Family Ecology); seventeen (19.1 percent) taught in cluster 3 (Automotive and Power, Technical and Industrial and Construction Trades); seventeen (19.1 percent) taught in cluster 4 (Health

Occupations and Child Care and Development); and, twenty-two (24.8 percent) taught in cluster 5 (Office Education, Business Education, and Distributive Education), (see table 4.6).

Testing of the Hypotheses

In presenting the results of the data analysis, an alpha level of 0.05 was used as the criterion of the stated hypotheses. Analysis of covariance was computed for the study, using the pretest scores as the covariates (see table 3.1--Design of the Study). Chi Square was computed to test hypotheses seven and eight. Spearman Rank Correlation was also computed to test for correlation between sex, education and Interpersonal Relationship factors--level of regard and unconditionality of regard.

The central hypothesis tested in this study was:

> There will be no significant difference between teachers teaching in special needs programs who have not attended a Vocational Education/Special Education Workshop and vocational teachers teaching in special needs programs who have not attended a Vocational Education/Special Education Workshop.

Hypothesis 1.1 stated:

> There will be no significant difference between teachers teaching in special needs programs who have attended a Vocational Education/Special Education Workshop and vocational teachers teaching in special needs programs who have not attended a Vocational Education/Special Education Workshop on the dependent variable level of regard.

Null hypothesis 1.1 was retained. The required value to reject the null hypothesis was 3.84. The computed F ratio with DF = 1,181; alpha 0.05 was .39 (see table 4.7).

Table 4.7.--A Comparison of Pre- and Posttest Means for the Variable Level of Regard and Treatment

Source Code	Pretest Mean	Posttest Mean	N	Sum of Squares	D.F.	Mean of Sq.	F	Sig
Treat Control	30.2	31.5	93					
Treat Exper.	31.1	31.0	89					
Between Groups				36.4987	1	36.4987	.39	.5294
Within Groups				16548.3419	180			
Total				16584.8487	181			

Hypothesis 1.2 stated:

> There will be no significant difference between teachers teaching in special needs programs who have attended a Vocational Education/Special Education Workshop and vocational teachers teaching in special needs programs who have not attended a Vocational Education/Special Education Workshop on the dependent variable unconditionality of regard.

Null hypothesis 1.2 was retained. The value required to reject the null hypothesis with DF = 1,181; alpha 0.05 was 3.84. The computed F ratio obtained for the data in this study related to unconditionality of regard and treatment was .74 (see table 4.8).

Before discounting the effects of a Vocational Education/Special Education Workshop, however, on teachers' attitudes, it should be noted that both groups of teachers had very favorable attitudes toward special needs students, which was revealed on the pretest for the dependent variable level of regard. While both groups scored low for the variable unconditionality of regard on the pretest; yet both groups showed a good gain on the posttest. So that one might conclude that

Table 4.8.--A Comparison of Pre- and Posttest Means for the Variable Unconditionality of Regard and Treatment.

Source	Code	Pretest Mean	Posttest Mean	N	Sum of Squares	D.F.	Mean	F	Sig
Treat	Control	5.5	9.5	93					
Treat	Exper.	3.9	10.2	89					
Between Groups					111.0335	1	111.0335	.74	.39
Within Groups					26925.6752	180	149.5871		
Total					27036.7088	181			

a Vocational Education/Special Education Workshop did impact upon the attitude of teachers who attended a Workshop for the variable unconditionality of regard.

Null hypothesis 2 stated:

> There will be no significant difference among vocational teachers teaching in different vocational clusters.

Null hypothesis 2.1 stated:

> There will be no significant difference in teachers teaching in cluster 2 (clothing and textiles/food services/ family ecology) and cluster 4 (health occupations/child care and development) and cluster 5 (office education/ business education/distributive education) on the dependent variable level of regard.

Null hypothesis 2.1 was retained. The value required to reject the null hypothesis with DF = 4,181; alpha = 0.05 was 2.37. The computed F value obtained for the study, as it relates to level of regard and cluster was 1.42 (see table 4.9).

Table 4.9.--Pretest Scores for the Variable Level of Regard and Occupational Cluster

Variable Cluster	Mean	N	Sum of Squares	DF	Mean Square	F	Sig
Agriculture/Nat. Res.	32.6	28					
Clothing and Tex./ Food Services/Fam. Ec.	32.03	31					
Auto/T&I/Const.	30.39	41					
Health/Child Care	31.80	30					
Off. Ed./Bus./Dist.	28.21	52					
Between Groups			517.9652	4	129.4913	1.42	.23
Within Groups			16066.8755	177	90.7733		
Total			16584.8487	181			

Null hypothesis 2.2 stated:

> There will be no significant difference in teachers teaching in cluster 2 (clothing and textiles/food services/family ecology) and cluster 4 (health occupations/child care and development) and cluster 5 (office education/business education/distributive education) on the dependent variable unconditionality of regard.

Null hypothesis 2.2 was retained. The value required to reject the null hypothesis with DF = 4,181; alpha 0.05 was 2.37. The computed F ratio obtained for this study, as it relates to unconditionality of regard and cluster was 1.87 (see table 4.10).

Null hypothesis 3 stated:

> There will be no significant interaction effect between occupational cluster and treatment (control and experimental)

Null hypothesis 3.1 stated:

> There will be no significant interaction effect between occupational cluster and treatment on dependent variable level of regard.

Table 4.10.--Pretest Scores for the Variable Unconditionality of Regard and Occupational Cluster

Variable	Mean	N	Sum of Squares	DF	Mean Square	F	Sig
Agriculture/Nat. Res.	3.9	28					
Clothing and Text./ Food Services/Fam. Ec.	4.4	31					
Auto/T&I/Const.	6.4	41					
Health/Child Care	7.5	30					
Off. Ed./Bus./Dist.	2.4	52					
Between Groups			640.8696	4	160.2174	1.87	.37
Within Groups			26395.8392	177	149.1290		
Total			27036.7084	181			

Null hypothesis 3.1 was retained. The value required to reject the null hypothesis with DF = 4,181; alpha 0.05 was 2.37. The computed F ratio obtained for the data in this study, as it relates to occupational cluster and treatment on the variable level of regard was .397 (see table 4.11).

Null hypothesis 3.2 stated:

> There will be no significant interaction effect between occupational cluster and treatment on dependent variable unconditionality of regard.

Null hypothesis was retained. The value required to reject the null hypothesis with DF = 4,181; alpha 0.05 was 2.37. The computed F ratio obtained for the data in this study, as it relates to occupational cluster and treatment for the variable unconditionality of regard was .17 (see table 4.12).

Null hypothesis 4 stated:

> There will be no significant difference in the positive attitude of male and female teachers teaching in vocational classes in special needs programs.

Table 4.11.--A Comparison of Pre- and Posttest Scores of Five Occupational Clusters on the Variable Level of Regard and Treatment

Variable	Code	Pretest Means	Posttest Means	N	Sum of Squares	DF	Mean Square	F	Sig.
Treatment	1	30.2	31.1	93					
Cluster	1	31.6	32.3	11					
Cluster	2	32.0	33.5	15					
Cluster	3	29.4	30.0	24					
Cluster	4	32.0	33.1	13					
Cluster	5	28.6	29.4	30					
Treatment	2	31.1	31.9	89					
Cluster	1	33.2	32.4	17					
Cluster	2	32.1	34.6	16					
Cluster	3	31.8	32.6	17					
Cluster	4	31.6	32.0	17					
Cluster	5	27.7	29.1	22					
Between Groups					33.43	4	33.43	.397	.55
Within Groups					16948.0686	177	94.16		
Total					16981.4945	181			

Treatment 1 = Control
Treatment 2 = Experimental
Cluster 1 = Agriculture and Natural Resources
Cluster 2 = Clothing and Textiles/Food Services/Family Ecology
Cluster 3 = Automotive/Technical and Industrial/Construction
Cluster 4 = Health Occupations/Child Care and Development
Cluster 5 = Office Education/Business Education/Distributive Education

Table 4.12.--A Comparison of Pre- and Posttest Scores of Five Occupational Clusters on the Variable Unconditionality of Regard and Treatment

Variable	Code	Pretest Means	Posttest Means	N	Sum of Squares	DF	Mean Square	F	Sig.
Treatment	1	5.5	9.5	93					
Cluster	1	7.5	10.2	11					
Cluster	2	6.7	14.6	15					
Cluster	3	6.0	9.4	24					
Cluster	4	8.2	10.2	13					
Cluster	5	2.6	6.6	30					
Treatment	2	3.9	10.2	89					
Cluster	1	1.6	10.4	17					
Cluster	2	2.3	7.9	16					
Cluster	3	6.8	13.1	17					
Cluster	4	7.1	15.6	17					
Cluster	5	2.3	5.3	22					
Between Groups					20.1173	4	20.1173	.17	.68
Within Groups					21551.9761	177	119.7332		
Total					21572.0934	181			

Null hypothesis 4.1 stated:

> There will be no significant difference in the positive attitudes of male and female teachers on the dependent variable level of regard.

Null hypothesis 4.1 was retained. The value required to reject the null hypothesis with DF = 1,181; alpha 0.05 was 3.84. The computed F ratio obtained for the study, as it relates to sex and level of regard was 2.13 (see table 4.13).

Null hypothesis 4.2 stated:

> There will be no significant difference in the positive attitudes of male and female teachers on the dependent variable unconditionality of regard.

Null hypothesis 4.2 was retained. The value required to reject the null hypothesis with DF = 1,181; alpha 0.05 was 3.84. The computed F value obtained for the data in this study, as it relates to sex and unconditionality of regard was 1.33 (see table 4.14).

Null hypothesis 5 stated:

> There will be no significant difference in teachers teaching in special needs programs who have received masters degrees and beyond and teachers teaching in special needs programs who have received less than a masters degree.

Null hypothesis 5.1 stated:

> There will be no significant difference in teachers teaching in special needs programs who have received masters degrees and beyond and teachers teaching in special needs programs who have received less than a masters degree on the dependent variable level of regard.

Null hypothesis 5.1 was retained. The value required to reject the null hypothesis with DF = 2,181; alpha 0.05 was 3.00. The computed F ratio obtained for the data in this study, as it relates to level of regard and education was 1.54 (see table 4.15).

Table 4.13.--A Comparison of Pretest Scores and Posttest Scores for Sex and Level of Regard

Variable	Code	Pretest Means	Posttest Means	N	Sum of Squares	DF	Mean Square	F	Sig.
Sex	M	29.6	30.4	93					
Sex	F	31.5	32.5	89					
Between Groups					385.9537	1	385.9537	2.13	.12
Within Groups					16148.8870	180	90.4966		
Total					161584.8407	181			

Table 4.14.--A Comparison of Pretest and Posttest Scores for Sex and Unconditionality of Regard

Variable	Code	Pretest Means	Posttest Means	N	Sum of Squares	DF	Mean Square	F	Sig.
Sex	M	4.5	8.9	93					
Sex	F	5.1	10.7	89					
Between Groups					316.5828	1	316.5828	1.33	.26
Within Groups					21255.5106	180	118.7459		
Total					21572.0934	181			

Table 4.15.--A Comparison of Pre- and Posttest Scores of Three Levels of Education and Level of Regard

Variable	Code	Pretest Means	Posttest Means	N	Sum of Squares	DF	Mean Square	F	Sig.
Ed. B.A. or less		31.7	32.5	109					
Ed. Masters		29.4	30.3	59					
Ed. Masters+		27.2	27.7	14					
Between Groups					287.974	2	143.9872	1.54	.22
Within Groups					16693.5202	179	93.2599		
Total					16891.4945	181			

Table 4.16.--A Comparison of Pre- and Posttest Scores of Three Levels of Education and Unconditionality of Regard

Variable	Code	Pretest Means	Posttest Means	N	Sum of Squares	DF	Mean Square	F	Sig.
Ed. B.A. or less		4.5	9.7	109					
Ed. Masters		5.2	10.1	59					
Ed. Masters+		4.1	10.7	14					
Between Groups					16.2787	2	8.1394	.07	.94
Within Groups					21555.8147	179			
Total					21572.0934	181			

Null hypothesis 5.2 stated:

> There will be no significant difference in teachers teaching in special needs programs who have received masters degrees and beyond and teachers teaching in special needs programs who have received less than a masters degree on the dependent variable unconditionality of regard.

Null hypothesis 5.2 was retained. The value required to reject the null hypothesis with DF = 2,181; alpha 0.05 was 3.00. The computed F ratio obtained for the data in this study, as it relates to unconditionality of regard and education was .07 (see table 4.16).

Null hypothesis 6 stated:

> There will be no significant interaction effect between sex and formal level of education.

Null hypothesis 6.1 stated:

> There will be no significant interaction effect between sex and formal education on the dependent variable level of regard.

Null hypothesis 6.1 was retained. The value required to reject the null hypothesis with DF = 2,181; alpha 0.05 was 3.00. The computed F ratio obtained for the data in this study, as it relates to sex and formal level of education for the variable level of regard was 2.41 (see table 4.17).

Null hypothesis 6.2 stated:

> There will be no significant interaction effect between sex and formal level of education on the variable unconditionality of regard.

Null hypothesis 6.2 was retained. The value required to reject the null hypothesis with DF = 2,181; alpha 0.05 was 3.00. The computed F ratio computed for the data in this study, as it relates to sex and formal level of education on the dependent variable unconditionality of regard was 1.33 (see table 4.18).

Table 4.17.--A Comparison of Pre- and Posttest Scores of Sex by Formal Level of Education on the Variable Level of Regard

Variable	Code	Pretest Means	Posttest Means	N	Sum of Squares	DF	Mean Square	F	Sig.
Sex	Male	29.7	30.4	93					
Ed. B.A. & less		30.7	31.1	52					
Ed. Masters		28.6	29.8	30					
Ed. Masters+		27.9	28.6	11					
Sex	Female	31.5	32.5	89					
Ed. B.A. & less		32.5	33.5	56					
Ed. Masters		30.2	30.9	29					
Ed. Masters+		24.7	29.0	4					
Between Groups					385.9537	2	192.9768	2.41	.09
Within Groups					16198.8870	179	90.4966		
Total					16584.8487	181			

Table 4.18.--A Comparison of Pre- and Posttest Score of Sex by Formal Level of Education on the Variable Unconditionality of Regard

Variable	Code	Pretest Means	Posttest Means	N	Sum of Squares	DF	Mean Square	F	Sig.
Sex	Male	4.5	8.9	93					
Ed. B.A. & less		4.6	8.7	52					
Ed. Masters		4.3	8.2	30					
Ed. Masters+		4.3	11.9	11					
Sex	Female	4.7	10.8	89					
Ed. B.A. & less		4.6	10.3	56					
Ed. Masters		6.2	11.9	29					
Ed. Masters+		3.3	6.3	4					
Between Groups					316.5828	2	158.2914	1.33	.27
Within Groups					21255.5106	179	118.7459		
Total					21572.0934	181			

Null hypothesis 7 stated:

> There will be no significant difference between teachers teaching in special needs programs who are 39 years old or less and teachers teaching in special needs programs who are 40 years old and older on the dependent variable level of regard.

Null hypothesis 7 was retained. The value required to reject the null hypothesis with DF = 4,181; alpha 0.05 was 2.37. The F ratio computed for this study, as it relates to age and the variable level of regard was 1.03 (see table 4.19).

Null hypothesis 8 stated:

> There will be no significant difference between teachers teaching in special needs programs who are 39 years old or less and teachers teaching in special needs programs who are 40 years old and older on the dependent variable unconditionality of regard.

Null hypothesis 8 was retained. The value required to reject the null hypothesis with DF = 4,181; alpha 0.05 was 2.37. The computed F ratio for the data in this study, as it relates to age and the dependent variable unconditionality of regard was .99 (see table 4.20).

Hypotheses 7 and 8 were also tested by Chi Square. The computed Chi Square value with DF = 1; alpha 0.05 was .62 for the variable level of regard. The necessary Chi Square value with DF = 1; alpha 0.05 was 3.8. Thus it was concluded that there was no significant relationship between age and the variable level of regard (see table 4.21). For the variable unconditionality of regard, the computed Chi Square was .37. The necessary Chi Square value with DF = 1; alpha 0.05 was 3.8. Thus it was concluded that there was no significant relationship between teachers' age and unconditionality of regard (see table 4.22).

Table 4.19.--A Comparison of Pre- and Posttest Scores of Five Categories of Teachers' Age and Level of Regard

Variable	Code	Pretest Means	Posttest Means	N	Sum of Squares	DF	Mean Squares	F	Sig.
Age	20-29	27.1	28.6	24					
Age	30-39	31.5	32.5	60					
Age	40-49	30.7	31.7	60					
Age	50-59	30.6	30.5	30					
Age	60 up	34.0	35.1	8					
Between Groups					387.6945	4	96.9236	1.03	.09
Within Groups					16593.6000	177	93.7503		
Total					16981.4945	181			

Table 4.20.--A Comparison of Pre- and Posttest Scores of Five Categories of Teachers' Age and Unconditionality of Regard

Variable	Code	Pretest Means	Posttest Means	N	Sum of Squares	DF	Mean Squares	F	Sig.
Age	20-29	.458	6.6	24					
Age	30-39	5.7	9.9	60					
Age	40-49	4.2	9.6	60					
Age	50-59	7.6	12.1	30					
Age	60 up	3.8	12.9	8					
Between Groups					476.0101	4	119.0025	.99	.41
Within Groups					21096.0833	177	119.1869		
Total					21572.0934				

Table 4.21.--Chi Square Test for Relationship Between Teachers' Age and Variable Level of Regard

Variable	Age	Mean	N	X^2 Value	DF	Sig.
Level of Regard	20-29	27.1	24	.62	1	.42
	30-39	31.5	60			
	40-49	31.7	60			
	50-59	30.5	30			
	60-up	35.1	8			

Required X^2 Value with DF = 1 is 3.8

Table 4.22.--Chi Square Test for Relationship Between Teachers' Age and Variable Unconditionality of Regard

Variable	Age	Mean	N	X^2 Value	DF	Sig.
Unconditionality of Regard	20-29	0.5	24	.37	1	.54
	30-39	5.7	60			
	40-49	4.2	60			
	50-59	7.6	30			
	60-up	3.8	8			

Required X^2 Value with DF = 1 is 3.8

Spearman Rank Correlation was computed to test the correlation, if any, found between teachers' age and the dependent variables level of regard and unconditionality of regard. The necessary R value was .06 and the computed R value was .009 for the variable level of regard. For the variable unconditionality of regard the computed R value was .009, the necessary R value was .10. Thus, it was concluded that there was no significant correlation between teachers' age and the dependent variables level of regard and unconditionality of regard (see tables 4.23 and 4.24).

Table 4.23.--Spearman Rank Correlation of Vocational Teachers' Age and Dependent Variable Level of Regard

Variable	Age	Mean	N	Probability	Sig. at 0.05
Level of Regard	20-29	27.1	24		
	30-39	31.5	60		
	40-49	31.7	60		
	50-59	30.5	30		
	60-up	35.1	8		
				.22	.06
				Computed R =	.009

Table 4.24.--Spearman Rank Correlation of Vocational Teachers' Age and Dependent Variable Unconditionality of Regard

Variable	Age	Mean	N	Probability	Sig. at 0.05
Uncon. of Regard	20-29	.45	24		
	30-39	5.7	60		
	40-49	4.2	60		
	50-59	7.6	30		
	60-up	3.8	8		
				.094	.10
				Computed R =	.009

Spearman Rank Correlation was also computed to test for correlation, if any, between teachers' education and the dependent variables level of regard and unconditionality of regard. For the variable level of regard, the computed R value was -.01, the necessary value was -.09. Thus, there was found to be no significant correlation between teachers' education and the variable level of regard. For the variable unconditionality of regard, the computed R value was .0004. The

necessary value for R at the 0.05 level of significance was .03. Thus, it was concluded that there was no significant correlation between teachers' education and the variable unconditionality of regard (see tables 4.25 and 4.26).

Table 4.25.--Spearman Rank Correlation of Vocational Teachers' Education and Dependent Variable Level of Regard

Variable	Education	Mean	N	Probability	Sig. at 0.05
Level of Regard	Less than B.A. and B.A.	31.7	109		
	Masters	29.3	59		
	Advanced	27.2	14		
				.12	-.09
				Computed =	-.01

Table 4.26.--Spearman Rank Correlation of Vocational Teachers'Education and Dependent Variable Unconditionality of Regard

Variable	Education	Mean	N	Probability	Sig. at 0.05
Unconditionality of Regard	Less than or equal to B.A.	4.5	109	.39	.03
	Masters	5.2	59		
	Advanced	4.1	14	Computed R =	.0004

Interpretation of Data

Based upon the data gathered in this study, it was found that there was no statistically significant difference between Michigan Vocational teachers who had attended a Vocational Education/Special Education Workshop and vocational teachers who had not attended a

Vocational Education/Special Education Workshop, as measured by the Barrett-Lennard Inventory for the interpersonal relationship factors level of regard and unconditionality of regard.

An analysis of the data shows that there was no significant difference found between teachers who taught in five occupational clusters. It was the researcher's purpose to find if there was an initial difference between vocational teachers who taught in the five occupational clusters. Since it was an initial difference that was sought; only the pretest scores of all the teachers who taught in the five occupational clusters were used.

A comparison of mean scores for teachers teaching in five occupational clusters reveals that teachers teaching in cluster 1 (Agriculture/Natural Resources) scored highest with a mean score of 32.6; teachers in cluster 2 (Clothing and Textiles/Food Services/Family Ecology scored next highest with a mean score of 32.06; teachers who taught in cluster 4 (Health/Child Care and Development scored next with a mean score of 31.8; teachers who taught in cluster 3 (Automotive/ Technical and Industrial/Construction) scored next with a mean score of 30.4; while teachers teaching in cluster 5 (Office Education/ Business Education/Distributive Education) scored lowest, with a mean score of 28.2.

An analysis of the data revealed that there was no significant difference found between teachers who taught in different occupational clusters for the variables unconditionality of regard and level of regard.

An analysis of the data shows that for the variable level of regard female vocational teachers scored slightly higher than did the male vocational teachers. For the variable unconditionality of regard, female teachers scored slightly higher than did the male vocational teachers. There was no significant difference found between female and male vocational teachers.

An analysis of the data revealed that teachers who held a bachelors degree or less than a bachelors degree scored slightly higher than did teachers with other levels of formal education. There was no significant difference found between teachers' level of formal education and the dependent variables level of regard and unconditionality of regard.

A comparison of mean scores for teachers teaching in different occupational clusters for the variable unconditionality of regard reveals that teachers who taught in cluster 4 (Health/Child Care and Development) scored highest with a mean score of 7.5. Teachers who taught in cluster 5 (Office Education/Business Education/Distributive Education) scored lowest, with a mean score of 2.4.

Chi Square test for relationship between teachers' age and the dependent variables level of regard and unconditionality of regard was computed. The necessary X^2 value with DF = 1 was 3.84. The computed X^2 value was .62 for the variable level of regard, and .37 for the variable unconditionality of regard. Thus it was concluded that there was no significant relationship between teachers' age and the variables level of regard and unconditionality of regard (see tables 4.21 and 4.22).

Spearman Rank Correlation and Scattergram were computed to test for a significant relationship between education and pretest scores for the dependent variables level of regard and unconditionality of regard. For the variable level of regard a correlation (R) was computed, giving a correlation of -.01. The necessary R value was .09. For the variable unconditionality of regard a correlation (R) was computed, giving a R value of .0004. The necessary R value was .03. Thus, it was concluded that there was no significant correlation between teachers' education and the variables level of regard and unconditionality of regard (see tables 4.25 and 4.26).

Spearman Rank Correlation was computed to test the correlation, if any, found between teachers' age and the dependent variables level of regard and unconditionality of regard. The necessary R value was .06 and the computed R value was .009 for the variable level of regard. For the variable unconditionality of regard the computed R values was .009, the necessary R value was .10. Thus, it was concluded that there was no significant correlation between teachers' age and the dependent variables level of regard and unconditionality of regard (see tables 4.23 and 4.24).

Summary

The hypotheses of this study were designed to determine whether or not there was a significant difference in interpersonal relationship factors between Michigan vocational teachers in special needs programs who had attended a Vocational Education/Special Education Workshop and those teachers who had not attended a Vocational Education/Special Education Workshop. The interpersonal relationship factors studied in

this research were level of regard and unconditionality of regard. The study was also designed to discuss the relationship between normative data (sex, age, education, and experience) and the interpersonal relationship factors, level of regard and unconditionality of regard.

The standard for retaining or not retaining an hypothesis was an alpha level of 0.05. The dependent variables, level of regard and unconditionality of regard, were measured by the Barrett-Lennard Teacher-Pupil Relationship Inventory: Teacher Form (see Appendix B).

Based upon the data gathered in this study, it was found that there was no statistically significant difference between vocational teachers teaching in special needs programs who had attended a Vocational Education/Special Education Workshop and vocational teachers teaching in special needs programs who had not attended a Vocational Education/Special Education Workshop. Before discounting the effectiveness of a Vocational Education/Special Education Workshop, it should be noted that both groups of teachers had very favorable attitudes toward special needs students. This was revealed by the pretest scores for the variable, level of regard. While both groups had comparatively low scores for the pretest on the variable unconditionality of regard, the experimental group did show a much higher percentage of change from the pretest to the posttest (1.61 percent) than did the control group (.74 percent).

The data also indicated that teachers who had attended a Vocational Education/Special Education Workshop, and who taught in cluster 2 (Clothing and Textiles/Food Services/Family Ecology) scored highest on the posttest for the variable level of regard; while teachers who

had attended the Workshop, and who taught in cluster 5 (Office Education/Business Education/Distributive Education) scored lowest on the posttest for the variable level of regard.

The data also indicated that teachers who had attended a Vocational Education/Special Education Workshop, and who taught in cluster 4 (Health Occupations/Child Care and Development) scored highest on the posttest for the variable unconditionality of regard; while teachers who taught in cluster 5 (Office Education/Business Education/Distributive) scored lowest.

An analysis of correlations showed that there was no significant correlation between teachers' age and teachers' education and the dependent variables level of regard and unconditionality of regard.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

Included in this chapter is a brief review of the purposes, design, treatment, and the experimental hypotheses tested in this study. Conclusions based on the analysis of the data described in chapter 4 are stated. Also presented are recommendations for the field of vocational education, with emphasis on students with special needs, and suggestions for further research. These recommendations are drawn from the review of the literature and analysis of data described in chapter 4.

The author's purposes in the study were (1) to determine whether attending a Vocational Education/Special Education Workshop for instructional personnel in vocational programs for students with special needs has had a positive effect on selected interpersonal relationship factors, and (2) to provide information and recommendations for decision makers and programmers in the field of vocational education for students with special needs, with emphasis on inservice teacher education at the secondary and post-secondary levels. The study was also designed to determine the relationship between the normative data and the interpersonal relationship factors.

The central hypothesis tested in this study was:

> Michigan vocational teachers who were teaching in special needs programs who had attended a Vocational Education/Special Education Workshop would score higher on an interpersonal relationship inventory

than would vocational teachers who were teaching in special needs programs who had not attended a Vocational Education/Special Education Workshop.

There were eight hypotheses tested in the study. All of the eight hypotheses were retained in the null form.

An analysis of covariance was computed to determine whether to retain or not to retain an hypothesis. Chi Square was computed to test hypotheses seven and eight for significance. Spearman Rank Correlation was also computed to test for correlation between teachers' age and education and scores received for the variables level of regard and unconditionality of regard.

The independent variables in the study were: occupational cluster, age of the teacher, formal level of education attained by the teacher, sex, and treatment (control or experimental). The dependent variables were: level of regard and unconditionality of regard.

Conclusions

The problem for this study was to determine whether or not attending a Vocational Education/Special Education Workshop would increase the effectiveness of teachers' interpersonal relationship skills as they related to level of regard and unconditionality of regard. The dependent variables used in the study as indicators of teachers' attitudes toward special needs students were measured by the Barrett-Lennard Relationship Inventory designed to measure the two dependent variables level of regard and unconditionality of regard. The independent variables were (1) occupational cluster, (2) sex, (3) age, (4) education, (5) treatment.

The results of the study indicated that attending a Vocational Education/Special Education Workshop did not make a significant difference in teachers' attitudes as measured by the Barrett-Lennard Interpersonal Relationship Inventory Scales for the dependent variables level of regard and unconditionality of regard. It was concluded from the analyses of the data gathered for the study that teachers of special needs students held very favorable attitudes toward the special needs students--the handicapped and the disadvantaged.

While there was no significant difference found between teachers of special needs students who had attended a workshop and teachers who had not attended a workshop; yet there were educational implications that seem worthwhile. All of the changes from the pretest to the posttest were of a positive nature, that is, teachers did show a positive change of attitude. The teachers who were in the experimental group had 1.61 percent of change; while teachers in the control group had .74 percent of change. And, though, not a statistically significant difference; yet was a positive change in the right direction. This indicates that the workshop did have a positive impact upon teachers' attitudes.

Several conclusions were drawn from the analyses of data gathered in the study:

1. Teachers who taught in Office Education/Business Education/Distributive Education do not have as favorable attitudes toward special needs students as teachers who taught in other occupational clusters.

2. Teachers who taught in Clothing and Textiles/Food Services/Family Ecology/and Health Occupations/Child Care and Development had a more favorable attitude toward special needs students than teachers who taught in any of the other occupational clusters.

3. Teachers who teach in programs that have both the disadvantaged and handicapped students hold more positive attitudes than those teachers who teach in programs that have only the handicapped or disadvantaged.

4. Teachers between the ages of 30-39 hold a more favorable attitude toward special needs students for the variable, level of regard (which means how highly they regard the student); while teachers who were 60 years or older held a more favorable attitude for the variable unconditionality of regard (which means they held high regard for students regardless of the student's behavior in classroom).

5. Teachers who had one year or less of teaching experience held more favorable attitudes toward students for the variable, level of regard; while teachers who had ten years or more of teaching experience held more favorable attitudes toward special needs students for the variable, unconditionality of regard.

6. It was concluded from the data in the study that female teachers held a slightly more favorable attitude toward special needs students than did male teachers.

Recommendations

Based upon the researcher's findings in the study, it appears that attending a Vocational Education/Special Education Workshop made no significant difference between teachers' attitudes who had attended a workshop and teachers who had not attended a workshop.

Even though there was no statistical significant difference found between teachers' attitudes who had attended a workshop and teachers who had not attended a workshop, there are some educational implications and recommendations that can be drawn from the data found in this research. Following are some of the recommendations that might seem to be educationally sound:

1. That an extensive study be made of the present Vocational Education/Special Education Workshops to determine their effectiveness. The rationale for inservice training programs seems to be that "if teachers have the competencies necessary for working with special

needs students they will not have the reluctance and anxiety that seems to characterize teachers who have not acquired the necessary competencies for teaching in special needs programs. A tentative model was developed by a committee, co-chaired by: Gene Thurber, Kent Intermediate School District, Larry Barber, Vocational-Technical Education Service, and Sheryl Cook, Bureau of Rehabilitation.

The model - Special Education, Vocational Education and Vocational Rehabilitation Staff Competencies for Preservice and Inservice Training in Pre-vocational and Vocational Education for the Handicapped--contained the following components:

1. LAW SECTIONS
   (Purpose, applicability and general provisions of Federal and State Legislation insuring handicapped children an appropriate public education).

2. HANDICAPPED SECTION
   (Types of impairments and their characteristics).

3. AGENCY/INTERAGENCY SECTION
   (Inter-disciplinary responsibilities and services for the handicapped in vocational education).

4. INDIVIDUALIZED EDUCATION PLAN SECTION
   (Provision for and assurance of the education of handicapped students).

5. INSTRUCTIONAL PROGRAMS
   (Provision of instructional programs).

6. INSTRUCTIONAL MATERIALS
   (Resource materials and related information).

7. EVALUATION
   (Evaluation for purposes of determining instructional effectiveness).

It was the opinion of the researcher that another component should be added to this model--a sensitivity training and/or human relations factor.

2. Decision makers and programmers in special needs programs should survey vocational teachers in programs where both the handicapped and disadvantaged were served to determine why these teachers had more favorable attitudes toward special needs students than teachers who are teaching in programs that include only the handicapped or the

disadvantaged student. This should produce information that would be useful for future inservice training programs.

3. Decision makers and programmers in special needs programs should survey teachers who are teaching in office education/business education/distributive education to determine why their attitudes toward special needs students were less favorable than teachers teaching in other occupational clusters in special needs programs. This would be very valuable in planning for future inservice training programs for teachers of business education/ office education/distributive education.

4. Decision makers and programmers in special needs programs should survey teachers who teach in Clothing and Textiles/ Food Services/Family Ecology/and Health Occupations/Child Care and Development/to determine why these teachers hold more favorable attitudes toward special needs students than teachers who teach in other occupational clusters in special needs programs. This should provide useful information for planning and developing future inservice training programs for teachers of special needs students.

5. Decision makers and programmers in special needs programs should survey teachers who have taught for one year or less to determine why they hold more favorable attitudes toward students with special needs than teachers with more years teaching experience. This should provide useful information for those who plan inservice training programs for teachers in special needs programs.

6. Decision makers and programmers in special needs programs should survey teachers who are 60 years or older to determine why they hold more favorable attitudes toward special needs students, especially as it relates to student behavior in the classroom; such as, acting out in class, undue demands upon teacher's time, and low-achievement in instructional materials. This could provide useful information for future inservice training programs for teachers who teach in special needs programs.

7. Decision and programmers in agencies should plan their inservice workshops so as to emphasize changes in interpersonal relationship factors, especially with emphasis upon the unconditionality of regard factor (regardless of how students behave in class); since teachers employed in all of the vocational clusters scored low on this factor.

The following recommendations have been drawn from the review of the literature:

1. Administrators, responsible for the interviewing and hiring of new teachers who will be teaching in special needs programs, should consider administering the Minnesota Teacher Attitude Inventory (MTAI); since studies have shown that teachers who score high on this test have been effective teachers of the trainable mentally retarded, while teachers who scored low on this test have been found to be ineffective teachers of the trainable mentally retarded, as the inventory measures pupil-teacher relationship.[1]

2. Decision makers and programmers at the college and university levels should seriously consider the development of a curriculum that would lead to dual certification--certification in vocational education and certification in special education.[2]

Such certification, in the opinion of the author of this study, would reduce the cost of operations for the local educational agency's special needs programs; as well as increase the effectiveness of their programs.

3. Colleges and Universities should plan curricula that will be more effective in orienting students toward a pluralistic social system, such as we have.[3] Teachers are, at the present, not being prepared to deal with children whose values and attitudes are different than theirs.

4. Colleges and Universities should be more aware of the fact that prospective teachers of the disadvantaged and handicapped must have field experiences that will prepare prospective teachers to cope with the specific learning, cultural, sociological, behavioral and professional situations unique to specific minority populations.[4]

5. Decision makers and programmers at colleges and universities with preservice teacher education programs in vocational education should design their curricula to include sensitivity and/or human relations training for prospective teachers of the handicapped and disadvantaged. This will serve to develop more favorable attitudes toward students with special needs.[5]

6. Decision makers and programmers at the university and college levels should actively recruit prospective students for their vocational programs and special education programs individuals who seem to be most likely candidates for teaching in special needs programs; i.e., the disadvantaged and handicapped persons.[6] This is

intended to mean teachers from among the disadvantaged groups; i.e., Blacks and Latinos, etc. etc.

Recommendations for Future Research

1. There should be additional research in the area of teacher inservice training as it relates to mainstreaming and individualized instruction and teaching style. The results of this study seem to indicate that this pursuit would be worthwhile.

2. Studies that have attempted to examine the effectiveness of inservice training to modify teachers' attitudes toward exceptional children should be closely examined; to seek those studies that might be deemed worthy of replication, in order to find data on the lasting effects of teacher attitude change, which might have been brought about through inservice training.

3. The feasibility of gathering or developing minicourses to provide inservice training in specific skills should be explored. This could very well prove useful for teachers in office education/business education/distributive education.

4. Further research is needed to determine needed competencies for teachers who teach special needs students. The human relations component should be investigated as it relates to the present state model mentioned in this study.

5. Further research is needed to determine needed characteristics for teachers who teach special needs students. This could help in the selection and training of teachers who will teach in special needs programs.

Notes

[1]Robert B. Blackwell, "The Study of Effective and Ineffective Teachers of the Trainable Mentally Retarded." Exceptional Children (October 1972), pp. 139-44.

[2]Russell Kruppa, Preparing Teachers of Industrial Education for Disadvantaged and Handicapped Children at the Secondary Level: Final Report (New Jersey: Department of Education, 1973), p. 30.

[3]Henry E. Schmitt, Teacher Education for Culturally Different: Appendix C of a Final Report (Columbus, Ohio: Ohio State University, Center for Vocational and Technical Education, 1973), p. 30.

[4]Ibid., p. 31.

[5]Walter S. Lee, "A Study of the Effectiveness of Sensitivity Training in an Inservice Teacher-Training Program in Human Relations." Dissertations Abstracts International (Ann Arbor, Michigan: University Microfilms, 28/05-A, 1967), p. 16 80-A.

[6]Schmitt.

APPENDICES

APPENDIX A

LETTERS

LANSING SCHOOL DISTRICT
500 W. Lenawee Street
Lansing, Michigan 48933

Dear Special Needs Administrator:

The problem of finding qualified teaching personnel for vocational programs for special needs has been rather difficult. Federal funds allocated under the 1968 Vocational Educational Amendments and Public Act 198 of 1971 have placed the State of Michigan in a unique position as far as the training of qualified personnel for special needs programs.

Under the direction of a Doctoral Committee, Drs. Frank Bobbitt, O. Donald Meaders, Sam Corl, and John Suehr, I am conducting a research study to determine the success of teacher training programs for students with special needs in the State of Michigan.

The purpose of this study is to determine whether specialized teacher training (inservice) for instructional personnel in vocational programs for special needs has had a positive effect on selected interpersonal (positive factors) relationship factors.

You are listed as the Special Needs Administrator (contact person) in your school district. I would appreciate your cooperation in supplying the names and addresses (school) of vocational teachers of special needs students in your school district. A stamped, self-addressed envelope has been enclosed for your convenience. I realize that this imposes on your already busy schedule, but I feel that your personal cooperation is extremely important to the development of teacher training programs for students with special needs in the State of Michigan.

Your cooperation and tolerance are greatly appreciated. Please return at the earliest and most convenient time to you.

Respectfully,

William A. Tolbert
4348 Wonstead Drive
Holt, Michigan 48842

LANSING SCHOOL DISTRICT
500 W. Lenawee Street
Lansing, Michigan 48933

Dear Special Needs Teacher:

The problem of finding qualified teaching personnel for vocational programs for special needs has been rather difficult. Federal funds allocated under the 1968 Vocational Educational Amendments and Public Act 198 of 1971 have placed the State of Michigan in a unique position as far as the training of qualified personnel for special needs programs.

Under the direction of a Doctoral Committee, Drs. Frank Bobbitt, O. Donald Meaders, Sam Corl, and John Suehr, I am conducting a research study to determine the success of teacher training programs for students with special needs in the State of Michigan.

The purpose of this study is to determine whether specialized teacher training (inservice) for instructional personnel in vocational programs for special needs has had a positive effect on selected interpersonal (positive factors) relationship factors.

Attached is a questionnaire which will serve as the basic data-collecting instruments. I would appreciate your cooperation in completing and returning this form as soon as possible. A stamped, self-addressed envelope has been enclosed for your convenience. I realize that this imposes on your already busy schedule, but I feel that your personal cooperation is extremely important to the development of teacher training programs for students with special needs in the State of Michigan.

Your cooperation and tolerance are greatly appreciated. Please return at the earliest and most convenient time for you.

Respectfully,

William A. Tolbert
4348 Wonstead Drive
Holt, Michigan 48842

LANSING SCHOOL DISTRICT
500 W. Lenawee Street
Lansing, Michigan 48933

Dear Special Needs Teacher:

A completed Teacher-Pupil Relationship Inventory, Teacher Form, has not been received from you. An additional form is attached to this letter for your use in case the previous form was misplaced.

I would appreciate your cooperation in completing and returning this as soon as possible. A stamped, self-addressed envelope has been enclosed for your convenience. I realize that this imposes on your already busy schedule, but I feel that your personal cooperation is extremely important to the development of teacher training programs for students with special needs in the State of Michigan.

Your cooperation and tolerance are greatly appreciated. Please return completed form as soon as your time will permit.

Respectfully,

William A. Tolbert
4348 Wonstead Drive
Holt, Michigan 48842

UNIVERSITY OF WATERLOO
Waterloo, Ontario N2L 3G1

November 3, 1977

William A Tolbert
4348 Wonstead Drive
Holt, Michigan 48842

Dear

Thank you for your inquiry regarding the Relationship Inventory. I am enclosing principal R.I. forms, and related information at hand. If you have decided, or should decide, to make use of the R.I.--

1. It would be quite agreeable with me for you to reduplicate the relevant form(s) of the Inventory for your own research. In return, please would you send me a copy of any reports of your work, using the R.I.

2. Because the R.I. has passed through two revisions, appears in several forms in the current (1964) revision, and has been adapted by some investigators for special-purpose applications, it would be important to indicate clearly the specific form(s) that you used (e.g., Form OS-64), when you report your findings.

3. Should you consider adapting the R.I. in any substantive way (especially, any way that yould affect item content or answer categories) please write to me about your plan or need. I may be able to provide relevant further information, comment or advice.

I do look forward to knowing in due course, the specific methods and results of your research, using the R.I.--including aspects that may add to knowledge of characteristics and uses of the instrument itself.

Sincerely yours,

G. T. Barrett-Lennard
Professor

APPENDIX B

TEACHER-PUPIL RELATIONSHIP INVENTORY: TEACHER FORM AND AUTHORIZATION LETTER

Code: _____ Date: _____

(BARRETT-LENNARD) RELATIONSHIP INVENTORY--FORM MO-G-64

Below are listed a variety of ways that a person may feel about or behave toward others.

Please consider each statement with reference to the present relationship between yourself and _____.

Mark each statement in the left margin, according to how strongly you feel that it is true, or not true, in this relationship. Please mark every one. Write in +3, +3, +1, or -1, -2, -3, to stand for the following answers:

+3:	Yes, I strongly feel that it is true.	-1:	No, I feel that it is probably untrue, or more untrue than true.
+2:	Yes, I feel it is true.	-2:	No, I feel it is not true.
+1:	Yes, I feel that it is probably true, or more true than untrue.	-3:	No, I strongly feel that it is not true.

_____ 1. I respect them as persons.

_____ 2. I want to understand how they see things.

_____ 3. The interest I feel in them depends on the things they say or do.

_____ 4. I feel at east with them.

_____ 5. I really like them.

_____ 6. I understand their words but do not know how they actually feel.

_____ 7. Whether they are feeling pleased or uphappy with themselves does not change the way I feel about them.

_____ 8. I am inclined to put on a role or front with them.

_____ 9. I do feel impatient with them.

_____ 10. I nearly always know exactly what they mean.

_____ 11. Depending on their actions, I have a better opinion of them sometimes than I do at other times.

_____ 12. I feel that I am a real and genuine person with them.

_____ 13. I appreciate them personally.

_____ 14. I look at what they do from my own point of view.

_____ 15. The way I feel about them doesn't depend on their feelings toward me.

_____ 16. It bothers me when they ask or talk about certain things.

_____ 17. I feel indifferent to them.

_____ 18. I usually sense or realise how they are feeling.

_____ 19. I would like them to be persons of a particular kind.

_____ 20. When I speak to them I nearly always can say freely just what I am thinking or feeling at that moment.

_____ 21. I find them rather dull and uninteresting.

_____ 22. What they say or do sometimes arouses feelings in me that prevent me from understanding them.

_____ 23 Whether they criticise or show appreciation of me does not (or would not) change my feeling toward them.

_____ 24. I would really prefer them to think that I like or understand them even when I don't.

_____ 25. I care for them.

_____ 26. Sometimes I think that they feel a certain way, because that's the way I feel myself.

_____ 27. I like them in some ways, while there are other things about them I do not like.

_____ 28. I don't feel that I have been ignoring or putting off anything that is important for our relationship.

_____ 29. I do feel disapproval of them.

_____ 30. I can tell what they mean, even when they have difficulty in saying it.

_____ 31. My feeling toward them stays about the same; I am not in sympathy with them one time and out of patience with them at another.

_____ 32. Sometimes I am not at all comfortable with them but we go on, outwardly ignoring it.

_____ 33. I put up with them.

_____ 34. I usually understand the whole of what they mean.

_____ 35. If they are angry or impatient with me I generally get annoyed or upset too.

_____ 36. I am unable to be sincere and straightforward in whatever I express with them.

_____ 37. I feel friendly and warm toward them.

_____ 38. I ignore some of their feelings.

_____ 39. My liking or disliking of them is not altered by anything that they say about themselves.

_____ 40. At times I just don't know, or don't realise until later, what my feelings are with them.

_____ 41. I value my relationship with them.

_____ 42. I appreciate just how their experiences feel to them.

_____ 43. I feel quite pleased with them sometimes, and then they disappoint me at other times.

_____ 44. I feel comfortable to express whatever is in my mind with them, including any feelings about myself or about them.

_____ 45. I don't like them as people.

_____ 46. At times I think that they feel strongly about something and then it turns out that they don't.

_____ 47. Whether they are in good spirits or bothered and upset does not cause me to feel any more or less appreciation of them.

_____ 48. I can be quite openly myself in my relationship with them.

_____ 49. Somehow they irritate me.

_____ 50. At the time I don't realise how touchy or sensitive they are about some of the things we discuss.

_____ 51. Whether they are expressing "good" thoughts and feelings, or "bad" ones, does not affect the way I feel toward them.

_____ 52. There are times when my outward response to them is quite different from the way I feel underneath.

_____ 53. At times I feel contempt for them.

_____ 54. I understand them.

_____ 55. Sometimes they seem to me more worthwhile than they do at other times.

_____ 56. I don't sense any feelings in relation to them that are hard for me to face and admit to myself.

_____ 57. I truly am interested in them.

_____ 58. I often respond to them rather automatically, without taking in what they are experiencing.

_____ 59. I don't think that anything they say or do really alters the way I feel toward them.

_____ 60. What I say to them would often give a wrong impression of my full thought or feeling at the time.

_____ 61. I feel deep affection for them.

_____ 62. When they are hurt or upset I can recognize just how they feel, without getting upset myself.

_____ 63. What <u>other</u> people think and feel about them does help to make <u>me</u> feel as I do toward them.

_____ 64. I feel there are things we don't talk about that are causing difficulty in our relationship.

NORMATIVE DATA

Date _____

Code_____

PLEASE PROVIDE THE FOLLOWING INFORMATION:

1. Age: _____ 20-29
_____ 30-39
_____ 40-40
_____ 50-59
_____ 60 or above

Sex:
Female _____
Male _____

2. What occupational cluster do you teach in?

_____Agriculture/Natural Resources
_____Automotive and Power Services
_____Clothing and Textile
_____Construction
_____Distribution
_____Other:_____
_____Graphics and Communication Media
_____Food Preparation Service
_____Manufacturing
_____Office & Business Occupations
_____Other:_____

3. Number of years of teaching experience:

_____1 or less
_____2-3
_____4-5
_____6-9
_____10 or more

4. Level of formal education completed:

_____1 year or less of college
_____Bachelor's degree
_____Master's degree
_____Advanced degree

5. Does the cluster in which you teach serve:

_____Handicapped Students
_____Disadvantaged Students

_____Both

6. Specialized Inservice Instruction: e.g. workshops, courses, etc.

TITLE	SPONSORING AGENT	COORDINATOR
Instructional Strategies in Special Needs		
Vocational Education/Special Education		

Other (give brief description)

---

7. Length of workshop:

_____1 day
_____2-3 days
_____1 week
_____More than one week

APPENDIX C

OBSERVED CELL MEANS FOR VARIABLES, STANDARD DEVIATIONS, FACTORS, AND SUBJECT NUMBER

Table C.1.--Observed Cell Mean and Standard Deviation for Variable Level of Regard by Cluster and Treatment

Treatment	Cluster	Pretest Mean	Pretest Std. Dev.	Posttest Mean	Posttest Std. Dev.	Change + or -
	1	31.64	10.53	32.27	9.95	.63
	2	32.00	11.55	33.47	11.23	1.47
Control	3	29.37	7.21	30.00	7.43	.63
	4	32.00	8.53	33.08	7.36	.08
	5	28.60	11.89	29.43	11.95	.83
Mean of Mean		31.18	10.05	31.08	9.93	3.64
	1	33.23	8.78	32.35	10.49	- .88
	2	32.06	10.32	34.56	8.33	2.50
Experimental	3	31.82	10.39	32.65	13.54	.83
	4	31.65	7.70	32.00	6.60	.35
	5	27.68	8.13	29.09	7.36	1.41
Mean of Mean		31.08	9.08	31.93	9.46	4.21

Table C.2.--Observed Cell Mean and Standard Deviation for Variable Unconditionality of Regard by Cluster and Treatment

Treatment	Cluster	Pretest Mean	Pretest Std. Dev.	Posttest Mean	Posttest Std. Dev.	Change + or -
	1	7.45	14.02	10.18	13.09	2.73
	2	6.67	14.68	14.60	10.02	7.93
Control	3	6.04	12.48	9.42	11.47	3.38
	4	8.15	14.00	10.15	12.69	2.00
	5	2.57	12.28	6.63	12.56	4.06
Mean of Mean		5.48	13.07	9.55	12.02	20.10
	1	1.59	11.77	10.41	11.57	8.82
	2	2.25	10.83	7.87	7.71	5.62
Experimental	3	6.82	11.44	13.12	13.58	6.30
	4	7.06	12.76	15.65	3.77	8.59
	5	2.27	9.82	5.32	6.07	3.05
Mean of Mean		3.91	11.29	10.21	9.68	32.38

Table C.3.--Observed Cell Mean and Standard Deviation for Variable Level of Regard and Age

Age	Pretest Mean	Pretest Std. Dev.	Posttest Mean	Posttest Std. Dev.	Change + or -	N
20-29	27.12	10.62	28.63	11.07	1.51	24
30-39	31.48	9.06	32.45	8.99	0.97	60
40-49	30.73	10.72	31.68	10.81	0.95	60
50-59	30.57	6.45	30.53	7.16	-0.04	30
60 or over	34.00	10.29	35.13	9.45	1.15	8
Mean of Mean	30.62	9.57	31.49	9.68	4.54	182

Table C.4.--Observed Cell Mean and Standard Deviation for Variable Unconditionality and Age

Age	Pretest Mean	Pretest Std. Dev.	Posttest Mean	Posttest Std. Dev.	Change + or -	N
20-29	.458	11.12	6.63	9.65	6.17	24
30-39	5.67	13.16	9.99	11.86	4.32	60
40-49	4.17	11.55	9.57	11.04	5.40	60
50-59	7.60	10.85	12.07	8.87	4.47	30
60 or over	3.75	16.56	12.87	12.99	9.12	8
Mean of Mean	4.72	12.22	9.87	10.92	29.48	182

Table C.5.--Observed Cell Mean and Standard Deviation for Variable Level of Regard and Experience

Experience Years	Pretest Mean	Pretest Std. Dev.	Posttest Mean	Posttest Std. Dev.	Change + or -	N
1 or less	32.93	11.13	33.20	11.52	0.27	15
2-3	20.21	7.75	31.06	7.49	0.85	33
4-5	28.08	11.20	29.71	10.54	1.63	24
6-9	30.63	9.27	31.65	9.41	1.02	46
10 or more	31.23	9.68	31.88	10.28	0.65	64
Mean of Mean	30.62	9.57	31.49	9.69	4.42	182

Table C.6.--Observed Cell Mean and Standard Deviation for Variable Unconditionality of Regard and Experience

Experience Years	Pretest Mean	Pretest Std. Dev.	Posttest Mean	Posttest Std. Dev.	Change + or -	N
1 or less	4.47	14.83	9.13	12.66	4.66	15
2-3	5.76	11.45	8.88	9.04	4.11	33
4-5	3.63	12.92	8.96	10.30	5.33	24
6-9	4.96	12.54	9.48	12.21	4.52	46
10 or more	4.48	11.80	10.67	10.90	6.19	54
Mean of Mean	4.72	12.22	9.87	10.92	24.81	182

Table C.7.--Observed Cell Mean and Standard Deviation for Variable Level of Regard and Program

Program	Pretest Mean	Pretest Std. Dev.	Posttest Mean	Posttest Std. Dev.	Change + or -	N
Handicapped	29.59	8.82	30.09	8.80	0.50	44
Disadvantaged	29.71	10.40	30.33	10.37	0.62	58
Combination	31.85	9.31	33.11	9.51	1.26	80
Mean of Mean	30.62	9.57	31.49	9.69	2.38	182

Table C.8.--Observed Cell Mean and Standard Deviation for Variable Unconditionality of Regard and Program

Program	Pretest Mean	Pretest Std. Dev.	Posttest Mean	Posttest Std. Dev.	Change + or -	N
Handicapped	2.98	12.04	8.48	9.91	5.50	44
Disadvantaged	2.79	13.58	7.43	12.42	4.64	58
Combination	7.07	10.97	12.41	9.81	5.34	80
Mean of Mean	4.72	12.22	9.87	10.92	15.48	182

Table C. 9.--Cell Mean and Standard Deviation for Variable Level of Regard and Sex

Sex	Pretest Mean	Pretest Std. Dev.	Posttest Mean	Posttest Std. Dev.	Change + or -	N
Male	29.66	9.42	30.38	10.16	0.72	93
Female	31.46	9.61	32.50	8.99	1.04	89
Mean of Mean	30.62	9.57	31.49	9.69	1.76	182

Table C.10.--Observed Cell Mean and Standard Deviation for Variable Unconditionality of Regard and Sex

Sex	Pretest Mean	Pretest Std. Dev.	Posttest Mean	Posttest Std. Dev.	Change + or -	N
Male	4.48	11.86	8.93	11.41	4.45	93
Female	5.07	12.68	10.72	10.33	5.65	89
Mean of Mean	4.72	12.22	9.87	10.92	10.10	182

Table C.11.--Observed Cell Mean and Standard Deviation for Variable Level of Regard and Education.

Education	Pretest Mean	Pretest Std. Dev.	Posttest Mean	Posttest Std. Dev.	Change + or -	N
Less than or equal to B.A.	31.72	9.23	32.47	9.23	0.75	109
Masters Deg.	29.39	9.99	30.35	10.41	0.76	59
Advanced Deg.	27.21	9.62	28.71	9.63	1.50	14
Mean of Mean	30.62	9.57	31.49	9.69	3.21	182

Table C.12.--Observed Cell Mean and Standard Deviation for Variable Unconditionality of Regard and Education.

Education	Pretest Mean	Pretest Std. Dev.	Posttest Mean	Posttest Std. Dev.	Change + or -	N
Less than or equal to B.A.	4.52	12.69	9.67	11.18	5.15	109
Masters Deg.	5.24	11.82	10.05	10.49	5.25	59
Advanced Deg.	4.07	10.79	10.71	11.34	6.64	14
Mean of Mean	4.72	12.22	9.87	10.92	17.04	182

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