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A Comparison of Teacher Attitudes and Certain Other Variables in Three School Settings for the Educable Mentally Handicapped

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A COMPARISON OF TEACHER ATTITUDES AND CERTAIN OTHER VARIABLES IN THREE SCHOOL SETTINGS FOR THE EDUCABLE MENTALLY HANDICAPPED

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A COMPARISON OF TEACHER ATTITUDES AND CERTAIN OTHER VARIABLES IN THREE SCHOOL SETTINGS FOR THE EDUCABLE MENTALLY HANDICAPPED

Claudia Todd Jacobs, Ed.D.

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The purpose of this study was to examine and compare attitudes of teachers toward teaching, toward the educable mentally handicapped (EMH), and toward their ability to teach the EMH in public school settings, as well as in groups categorized by teacher age, sex, experience, training, and amount of in-school contact with the EMH.

The 85 subjects were selected from teachers employed during 1972-1973 in public schools of St. Clair County and Oakland County, Michigan, teaching children 7 to 10 years old. Subjects were assigned to groups according to the following criteria: taught special classes of identified EMH (Group 1); taught regular classes, received supportive services--resource room or consultant--for identified EMH in classes (Group 2); taught regular classes, received no supportive help for identified EMH in classes (Group 3); or taught regular classes having no children identified as EMH (Group 4).

All data were collected during May and June, 1973. Three instruments were self-administered by all subjects:

(1) Personal Information Questionnaire; (2) Minnesota Teacher Attitude Inventory (MTAI), used to measure attitude toward teaching; and (3) Teacher Opinion Check (TOC), which measured attitude toward EMH and toward the teacher's ability to teach EMH.

It was hypothesized that teachers who have positive attitudes toward teaching (MTAI) also have positive attitudes toward EMH and their own ability to teach them (TOC). The hypothesis was rejected. Correlation between the two instruments was not significant. Data suggested low scores (negative attitudes) on the MTAI and TOC may be related. Teachers who had no children in class identified as EMH (Group 4) had lowest mean scores on both instruments.

Further examination and comparison is needed to determine whether such a relationship occurred by chance or is statistically significant.

The hypothesis that teachers who are under 30 years old are more positive in attitudes than teachers over 30 was supported by the data. MTAI scores, ranked highest to lowest, matched age groups, youngest to oldest. The youngest group also attained highest score on the TOC. Because of size of sample, age groups were in 10-year intervals.

Male response to the instruments was limited; therefore, data were not analyzed to test the hypothesis that

there is no significant difference between scores on attitude measures of males and females.

It was hypothesized that teachers who have completed coursework offered in university special education departments are more positive toward EMH and toward their own ability to teach them than are teachers who have had no such coursework. Highest scores were gained by groups with most completed semester hours; however, the role of specific course content should be explored.

Length of teaching experience as a factor influencing teacher attitude was investigated. Teachers with least or moderate experience had highest scores, while teachers with most experience had lowest scores (most negative attitudes). Those with experience teaching EMH had significantly higher scores on the TOC than teachers with little (one year) or no experience.

Teachers who had some in-school contact with EMH scored higher on every measure than teachers with no in-school contact. It was not possible to examine effects of amount of contact because of the small number of subjects in the refined categories; however, Group 1 (teachers of special classes) had the greatest amount of in-school contact and significantly higher scores than Group 4 (teachers with no identified EMH and least contact).

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Claudia Todd Jacobs

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CHAPTER I

JUSTIFICATION FOR STUDY

A central issue in special education is integration of mildly handicapped children into regular classes. The educable mentally handicapped child has been in the center of the integration-segregation debate for over two decades (Johnson and Kirk, 1950), and the resolution of this issue is still considered by many to be a current problem.

The cycle of the integration-segregation trend in the placement of the educable mentally handicapped child appears to have made at least a complete revolution, and the irony is that school systems which have historically provided no programs or services for the educable mentally handicapped child may, in 1973, be considered "advanced" because these children are in regular classrooms.

According to Kirk (1964), the movement toward special classes for the educable mentally handicapped child, which began as early as 1896 in the United States, was slow but steady until the 1960's. The belief that placing these children in special classes was more beneficial to them than retaining them in the regular classroom was not supported by conclusive empirical evidence.

Research efforts were contradictory, due partially to problems inherent in *in situ* investigations, such as

selection factors in assigning children to special and regular classes, labeling policies, and the measuring instruments used in the comparative studies.

During the 1960's, the growth of special classes accelerated. Simultaneously, some leaders in the field of special education were raising serious questions about the value of these classes.

Johnson (1962) shocked proponents of special classes by suggesting that these classes were, in fact, no better than regular class placement for the educable mentally handicapped. He cited research suggesting the children placed in special classes actually "lost ground" when compared to those handicapped children who remained in regular classes. Johnson summarized:

> It is indeed paradoxical that mentally handicapped children having teachers especially trained, having more money (per capita) spent on their education, and being designed to provide for their unique needs, should be accomplishing the objectives of their education at the same or at a lower level than similar mentally handicapped children who have not had these advantages and have been forced to remain in the regular grades [p. 66].

Dunn (1968) questioned the justification of much of special education for the mildly retarded. He maintained that a large proportion of special education in its present form was obsolete and unjustifiable. In particular, he attacked the method of labeling children from low social and economic backgrounds, disruptive children, and other "misfits" as retarded, as well as the homogeneous grouping

and tracking that is special education.

Lilly (1970) went a step further by suggesting:

> . . . traditional special education services as represented by self contained special classes should be discontinued immediately for all but the severely impaired . . . [p. 43].

Willenburg (1971) set forth policy statements for consideration of the Delegate Assembly at the 1971 Convention of the Council for Exceptional Children. Relative to placement, he stated:

> Within schools all children should be placed in such a way as to maximize their opportunities for the best possible education. Specialized placements effected crudely and simply by rejection of children from regular school situations are educationally indefensible. Failures to develop needed differentiation of school programs which result in confinement of pupils in inappropriate educational settings are equally indefensible [p. 426].

In reaction to critics, Kolstoe (1972) pointed out that segregated classroom programs should not be discarded because a few were unsatisfactory. Successful placement in regular classes was a high risk because universities and colleges were doing little to prepare regular classroom personnel to work with handicapped children.

Reger (1972) also pointed out the dangers of disbanding special classes unless something better was offered. He maintained that special classes offered the only school environment where many handicapped students could succeed.

Basic to the integration-segregation issue are the factors that contribute to successful placement. Teacher

attitude has long been considered to be a major contributing factor. Valletutti (1969) has stated:

> Segregation or integration is not the critical issue. The values and attitudes of teachers and their effects on the pupils' self perception and performances are the key questions [p. 407].

Other contributing factors such as knowledge of the retarded, amount of coursework in special education, personal and personality factors, and experiences in teaching have also been examined. The further examination of these factors within the various settings where educable mentally handicapped children are found in the public schools was the purpose of this study.

The Problem

The central problem of this study was to determine if the attitudes of regular and special education teachers toward teaching, toward the educable mentally handicapped (EMH), and toward their ability to teach the educable mentally handicapped were related to their present teaching positions, their age, sex, training, experience, and the amount of weekly in-school contact with the educable mentally handicapped. It was designed to further the attempt to identify factors influencing teachers' attitudes so that educable mentally handicapped children can be educationally placed with optimum chances for success.

Definition of Terms

"Present teaching positions" included the following categories: (1) teachers who taught special classes of identified educable mentally handicapped children 7 to 10 years old; (2) teachers who taught regular classes of children 7 to 10 years old and received supportive services for those in the class identified as educable mentally handicapped; (3) teachers who taught regular classes of children 7 to 10 years old but received no supportive services for those children identified as educable mentally handicapped; and (4) teachers who taught regular classes of children 7 to 10 years old but had no child in class identified as educable mentally handicapped.

"Identified" referred to psychological evaluation by a school-employed diagnostician or psychologist in a manner consistent with the local district policy and in harmony with Michigan School Code Rules and Regulations.

"Supportive services" was restricted to resource-room or consultive help from the consultant for the mentally handicapped, which was readily available to the teacher.

"In-school contact" referred to scheduled responsibility for the EMH which could include integration into a regular class, segregated classes, or nonacademic activity such as gym, recess, etc.

"Seven to 10 years old" described children who were at least 7 and not yet 11 by January 1, 1973.

Major Hypotheses

The major hypotheses generated by the problem and tested in this study included:

1. Teachers who have positive attitudes toward teaching also have positive attitudes toward educable mentally handicapped children and their own ability to teach these children.

2. Teachers who are under thirty years old are more positive in attitudes toward teaching, toward the EMH, and toward their competency to teach the EMH than are teachers who are over thirty years old.

3. There is no significant difference between scores on attitude measures of male and female teachers.

4. Teachers who have completed coursework offered in university special education departments are more positive toward the educable mentally handicapped and toward their own ability to teach them than are teachers who have had no coursework in special education.

5. Length of teaching experience is not a significant factor in influencing attitudes of teachers toward teaching, toward the EMH, or toward their competency to teach the EMH.

6. The amount of in-school contact a teacher has had with the educable mentally handicapped is positively related to his attitude toward his ability to teach the educable mentally handicapped.

Limitations

This study was limited to 85 subjects who were elementary or special education teachers during the 1972-1973 school year. The subjects taught children who were between

7 and 10 years of age and who attended public school in either Oakland or St. Clair County, Michigan.

The researcher recognizes the limitations of questionnaire and survey research which have been pointed out in the literature (Kerlinger, 1964). They include the possibility of sampling error, the possibility that subjects may have responded to instruments unnaturally by being lifted temporarily out of their social context, and the inaccessibility of information about nonrespondents. Despite the researcher's attempts to minimize the effects of those factors through the design of administration instructions and instruments in the packets, they are a reality in research of this type.

CHAPTER II

REVIEW OF RELATED LITERATURE

Early literature related to teachers' attitudes toward the educable mentally handicapped was extremely limited. During the 1950's, several studies investigated the EMH child's social position in both special and regular classrooms when compared with normal peers (Johnson, 1950; Baldwin, 1958; Blatt, 1958). However, attempts to compare or analyze the attitudes of teachers toward EMH children were infrequent. One study (Haring, Stern, and Cruickshank, 1958) focusing upon attitudes contained the following notation:

> A substantial amount of research is available in the literature which pertains to the modification of attitudes and attitude measure. The major portion of the research on attitudes appears to be in areas of socioeconomic status, race and religious prejudices. Published research dealing with attitudes of teachers toward exceptional children is almost completely lacking [p. 8].

Teacher attitudes toward handicapped children in relation to such factors as age, sex, training, experience, and the amount of in-school contact with the educable mentally handicapped were the first consideration of this review. A second consideration was the interrelationship of teacher attitudes.

Teacher Attitudes and Related Factors

Attempts to isolate factors which influence the attitudes of teachers have not been conclusive. In comparing attitudes of regular and special class teachers toward the educable mentally handicapped, Fine (1967) concluded that (1) attitudes and expectations regarding the educable mentally handicapped differed, and (2) this difference was related to both training and the amount of contact with the educable mentally handicapped.

Bradfield (1971) investigated the interrelationships among teacher attitudes, student achievement, and student behavior ratings in classrooms for the emotionally disturbed and was unable to find a significant correlation between experience in teaching these children and scores on the Minnesota Teacher Attitude Inventory.

Coffelt (1970) compared teachers and student teachers on their information about exceptional children and their attitudes toward them. Among the four groups of subjects--(1) senior student teachers in general elementary education, (2) senior student teachers in elementary education with emphasis in special education, (3) experienced teachers in general elementary education, and (4) experienced special education teachers--Coffelt found no differences on information about exceptional children. The two groups of experienced teachers scored higher (more positive) in

attitude toward exceptional children, but there were no differences among the groups in the degree of acceptance of exceptional children.

Preparation for teaching the educable mentally handicapped did not seem to be a significant factor in the teacher's attitude toward his own competency to teach them, as reported in a study by Meredith (1970), who polled 406 special education teachers. He asked: "Do you feel your program adequately prepared you for your special education student teaching experience?" Of those polled, 212 teachers (52.2 percent) responded negatively.

Schofer (1961) studied a sample of regular classroom teachers. He explored the relationship among attitudes toward the retarded child, knowledge of mental retardation, and such teacher characteristics as college coursework in special education, number of years of teaching experience, present teaching assignment, age, and sex. Significant positive relationships were found between attitude toward the retarded and knowledge of mental retardation and attitude toward the retarded and special education coursework. Total number of years of teaching experience, age of teacher, or present teaching assignment appeared to have no influence upon teacher attitudes toward the retarded. The male subjects had slightly more positive attitudes toward retarded children, while the female subjects had more knowledge of retardation.

Mader (1967), in comparing attitudes of special educators toward the physically handicapped, found no significant differences in attitudes when compared by sex.

Saunders (1969) measured the attitudes of college students before and after a course of study dealing with handicapping conditions. He concluded that (1) exposure to the course of study does not change attitudes toward the disabled, and (2) variables of course orientation, grade level, age, and sex have no significant effect upon the attitudes of college students toward the disabled.

Shaw (1971) used a semantic differential scale and trained observers to compare the attitudes and behaviors of 69 elementary classroom teachers who were experienced in working with mildly handicapped as well as average children. He found teachers' attitudes were more favorable toward average children. He also observed that younger, less experienced teachers had fewer extremely positive or negative attitudes toward the mildly handicapped. His data suggested that there are no differences between teacher behaviors toward average and handicapped children. The relationship between teacher attitudes toward the handicapped and teacher behaviors toward the handicapped is also not significant, according to Shaw's report of research.

Höllinger and Jones (1970) analyzed community attitudes toward slow learners (a term formerly used in Ohio,

and elsewhere, to denote educable mentally handicapped) and mental retardates. Information obtained from the sample included: (1) attitudes toward persons labeled slow learners, (2) knowledge of slow learners, and (3) acceptance of persons labeled slow learners or mentally retarded. Age consistently correlated negatively with attitudes toward the mentally retarded for both sexes; contact with, and knowledge of, the mentally retarded appeared positively related to attitudes and acceptance for both sexes. However, Hollinger and Jones concluded:

> . . . no strong evidence can be adduced to suggest reliable relationships between exposure to information about or the actual physical presence of slow learners, and attitudes, knowledge about, and acceptance of slow learners, as these variables have measured in the present study [p. 21].

Interrelationship of Teacher Attitudes

Positive relationships among attitudes toward teaching, toward handicapped children, and toward one's own ability to teach these children appeared to have been more often assumed than researched. Boyce (1971), proceeding on the assumption that "effective teachers perceive themselves and those about them in a positive light [p. 5]," tested a population of teacher-interns to determine whether it was possible to identify effective teachers based upon their perceptions of themselves and those about them. He found no significant relationship between perceptions the

teacher-interns had of themselves and their success in teaching, but a significant relationship existed between their perceptions of others and their success in teaching.

Combs (1965, 1969) stressed the importance of the relationship of positive perception of self to effectiveness in the classroom. He found that effective teachers could be distinguished from ineffective teachers on the basis of their attitudes about themselves and others.

Blume (1968) also explored the role of positive self-concepts of teachers, indicating that when teachers have positive feelings about themselves they are able to converse with children in a way that enhances the children's self-concepts.

The study most directly investigating the interrelationships among the attitudes described in the present study was one by Shotel, Iano, and McGettigan (1972), in which they devised a questionnaire to study teacher attitudes associated with the integration of handicapped children into regular classrooms. They surveyed the teachers to elicit their attitudes toward (1) placement of handicapped children into regular classes with resource room support, (2) the potential of handicapped children for normal academic achievement, (3) the potential of handicapped children for normal social adjustment, (4) their own competencies for teaching handicapped children, and (5) the need for special methods and materials in teaching

handicapped children. A program for integration of mentally, emotionally, and educationally handicapped children into regular classes with supportive resource room services was initiated in the school of the experimental sample. Attitudes were measured by a questionnaire administered before and after the initiation of the program. On all items, responses relating to the educable mentally handicapped were less favorable than for other groups of handicapped. Responses of the experimental group of teachers tended to be more favorable before the educable mentally handicapped child returned to the regular class. The researchers concluded that pre-program optimism was generated by meetings held to explain the new program, and post-program change in attitude reflected the social and academic problems posed by the educable mentally handicapped in their regular classes. Shotel et al. (1972) indicated that their findings showed the need for more research on the feasibility of replacing special programs for the educable mentally handicapped with integrated and supportive services programs.

CHAPTER III

DESIGN

Components of the study design include description of the population and selection of the sample, selection and development of appropriate instruments, and the data-collection process.

Population and Sample

The sample of subjects for this study was comprised of 85 teachers employed during the 1972-1973 school year by the public schools of either St. Clair County or Oakland County, Michigan. Forty of the teachers taught identified educable mentally handicapped children in regular or in special education classrooms. The remaining 45 teachers had no children in their classrooms who had been identified as EMH.

St. Clair County had a school-age population of approximately 32,000 children in 1972-1973. It contains seven independent school districts organized into three cooperative special education program regions.

Oakland County had an approximate school-age population of 125,000 during the 1972-1973 school year. There are 28 independent school districts, and each operates a special education program.

The procedure for selecting a sample of teachers who taught identified educable mentally handicapped children was initiated by contacting the special education director or coordinator in each of the 31 special education programs. Information which was sent to the director or coordinator explained the purpose of the study. Included was a description of the types of samples the research design entailed. As an assist to locating subjects for each sample, the researcher provided the contact individual with a suggested list of sources to identify teachers adhering to the following sample specifications:

1. Teachers who taught special classes of identified educable mentally handicapped children 7 to 10 years old

2. Teachers who taught regular classes of children 7 to 10 years old and had supportive services in the form of a consultant and/or resource teacher for those in the class identified as educable mentally handicapped

3. Teachers who taught regular classes of children 7 to 10 years old which included children identified as educable mentally handicapped and for whom they received no supportive services

Twenty directors or coordinators responded, providing 43 names for Group 1, 29 names for Group 2, and 21 names for Group 3. For each group every third name from the alphabetized list of names was drawn until a pool of 20 names was produced.

Group 4 teachers were characterized as those who taught children 7 to 10 years old and who had no children

in class identified as educable mentally handicapped. A different method of selection was employed because the estimated size of this population was 2,000 teachers. The goal was to secure a sample comparable in number to those who taught identified EMH in the 7-to-10 age range; a pool of 60 names was sought. Names of the school districts were placed in two pools--one for each county. The plan was to draw at least 1 name from each pool and contact all teachers of grades one through five who did not fit the specifications for Group 1, Group 2, or Group 3. It required only two draws to secure the sample minimum. Group 4 was comprised of 65 teachers.

Data were analyzed by grouping subjects according to assignment, age, sex, training, experience, and in-school contact with the EMH. Tables 1 through 9 show the breakdown of subjects by number and percentage for each of the categories.

Table 1 shows the breakdown of subjects by county and by group assignment.

Table 2 reports the distribution of subjects by sex.

Table 3 shows the age distribution of the subjects. The average age of each group was as follows: Group 1, 33.7 years; Group 2, 30.5 years; Group 3, 37.8 years; and Group 4, 40.2 years.

Tables 4, 5, and 6 show distribution of the subjects by training. Table 4 reports the highest degree held by

TABLE 1.--Distribution of subjects by location and group assignment

Group	Oakland County		St. Clair County		Total	
	Number	%	Number	%	Number	%
Group 1[a]	10	11.7	4	4.7	14	16.4
Group 2[b]	12	14.1	0	0.0	12	14.1
Group 3[c]	14	16.4	0	0.0	14	16.4
Group 4[d]	29	33.9	16	18.7	45	52.6
Total	65	76.1	20	23.4	85	99.5

[a]Teachers who teach special classes of EMH children 7 to 10 years old

[b]Teachers who teach regular classes of children 7 to 10 years old and receive supportive services for the EMH

[c]Teachers who teach regular classes of children 7 to 10 years old, but receive no supportive services for the EMH

[d]Teachers who teach regular classes of children 7 to 10 years old and have no child identified as EMH

TABLE 2.--Distribution of subjects by sex

Group	Males		Females	
	Number	%	Number	%
Group 1	0	0.0	14	16.4
Group 2	1	1.2	11	12.9
Group 3	0	0.0	14	16.4
Group 4	6	7.0	39	45.6
Total	7	8.2	78	91.3

subjects, whether a Bachelor's, a Master's, or a Specialist's degree. Table 5 shows distribution of subjects by

TABLE 3.--Distribution of subjects by age

Age	Group 1		Group 2		Group 3		Group 4		Total Percentage
	Number	%	Number	%	Number	%	Number	%	
20-25	6	7.1	5	5.9	2	2.4	8	9.4	24.7
26-30	3	3.5	3	3.5	2	2.4	7	8.2	17.6
31-35	0	0.0	2	2.4	1	1.2	7	8.2	11.8
36-40	0	0.0	0	0.0	3	3.5	3	3.5	7.1
41-45	2	2.4	0	0.0	3	3.5	1	1.2	7.1
46-50	0	0.0	1	1.2	2	2.4	3	3.5	7.1
51-60	3	3.5	1	1.2	1	1.2	14	16.5	22.4
Over 60	0	0.0	0	0.0	0	0.0	2	2.4	2.4

TABLE 4.--Distribution of subjects by highest degree held

Group	Bachelor's		Master's		Specialist	
	Number	%	Number	%	Number	%
Group 1	10	11.8	4	4.7	0	0.0
Group 2	7	8.2	4	4.7	1	1.2
Group 3	7	8.2	7	8.2	0	0.0
Group 4	23	27.1	22	25.9	0	0.0
Total	47	55.3	37	43.5	1	1.2

TABLE 5.--Distribution of subjects with special education degrees

Group	Yes		No	
	Number	%	Number	%
Group 1	15[a]	17.5	0	0.0
Group 2	1	1.2	11	12.9
Group 3	1	1.2	13	15.2
Group 4	1	1.2	44	51.5
Total	18	21.2	68	79.6

[a]One subject had two special education degrees.

whether or not a degree was earned in special education. Table 6 shows distribution of subjects by the amount of coursework completed in special education.

Table 7 reflects the amount of in-school contact per week that subjects had with the EMH.

Tables 8 and 9 report distribution of subjects by experience in teaching. Table 8 shows total years of teaching; Table 9 shows total years of teaching the EMH.

TABLE 6.--Distribution of subjects by semester hours completed in special education

Hours	Group 1		Group 2		Group 3		Group 4		Total Percentage
	Number	%	Number	%	Number	%	Number	%	
0-3	0	0.0	6	7.1	6	7.1	28	32.9	47.1
4-7	0	0.0	1	1.2	4	4.7	10	11.8	17.6
7-10	1	1.2	2	2.4	1	1.2	1	1.2	5.9
11-15	0	0.0	0	0.0	2	2.4	6	7.1	9.4
16-20	6	7.1	0	0.0	0	0.0	0	0.0	7.1
Over 20	7	8.2	3	3.6	1	1.2	0	0.0	13.0

TABLE 7.--Distribution of subjects by amount of weekly in-school contact with educable mentally handicapped

Hours	Group 1		Group 2		Group 3		Group 4		Total Percentage
	Number	%	Number	%	Number	%	Number	%	
None	0	0.0	4	4.7	4	4.7	42	49.4	58.8
1-2	0	0.0	1	1.2	0	0.0	1	1.2	2.4
2-4	0	0.0	1	1.2	0	0.0	0	0.0	1.2
5-7	0	0.0	3	3.5	3	3.5	0	0.0	7.1
8-10	0	0.0	1	1.2	0	0.0	0	0.0	1.2
11-15	0	0.0	0	0.0	1	1.2	0	0.0	1.2
16-20	0	0.0	1	1.2	2	2.4	2	2.4	5.9
Over 20	14	16.5	1	1.2	4	4.7	0	0.0	22.4

TABLE 8.--Distribution of subjects by total years of teaching experience

Years	Group 1		Group 2		Group 3		Group 4		Total Percentage
	Number	%	Number	%	Number	%	Number	%	
0-1	2	2.4	1	1.2	0	0.0	1	1.2	4.7
1-2	1	1.2	1	1.2	1	1.2	3	3.5	7.1
2-4	3	3.5	3	3.5	1	1.2	7	8.2	16.5
4-6	1	1.2	1	1.2	0	0.0	5	5.9	8.2
6-8	0	0.0	2	2.4	4	4.7	3	3.5	10.6
8-10	2	2.4	1	1.2	0	0.0	2	2.4	5.9
10-20	3	3.5	2	2.4	6	7.1	12	14.1	27.1
Over 20	2	2.4	1	1.2	2	2.4	12	14.1	20.0

TABLE 9.--Distribution of subjects by total years of teaching educable mentally handicapped

Years	Group 1		Group 2		Group 3		Group 4		Total Percentage
	Number	%	Number	%	Number	%	Number	%	
0-1	2	2.4	10	11.8	12	14.1	43	50.6	78.8
1-2	1	1.2	1	1.2	1	1.2	1	1.2	4.7
2-4	5	5.9	0	0.0	0	0.0	0	0.0	5.9
4-6	2	2.4	0	0.0	1	1.2	0	0.0	3.6
6-8	0	0.0	1	1.2	0	0.0	0	0.0	1.2
8-10	2	2.4	0	0.0	0	0.0	0	0.0	2.4
10-20	1	1.2	0	0.0	0	0.0	1	1.2	2.4
Over 20	1	1.2	0	0.0	0	0.0	0	0.0	1.2

Instruments Used

The instruments used to gather data for this study included:

1. Personal Information Questionnaire
2. Minnesota Teacher Attitude Inventory
3. Teacher Opinion Check

Personal Information Questionnaire

The Personal Information Questionnaire (PIQ), devised for this study, was designed to gather information relative to present teaching position, length of time in that position, training (degrees held, special education coursework, present status of training), teaching experience, amount of contact with the educable mentally handicapped, age, and sex. It consists of 14 multiple-choice items (Appendix A).

Minnesota Teacher Attitude Inventory

The Minnesota Teacher Attitude Inventory (MTAI) was used to measure the subject's attitude toward teaching. It is an empirically developed scale designed to predict the type of social climate a teacher would maintain in the classroom (Harris, 1960). The MTAI consists of 150 statements prepared to sample opinion about teacher-pupil relations. It is self-administered; responses range from

"strongly agree" to "strongly disagree." The answers do not reflect "correct" or "incorrect" responses. For the purpose of analysis and comparison, raw scores yield a percentile rank equivalent.

It is an assumption of the MTAI that a teacher who ranked at the high end of the scale should be able to maintain a state of harmonious relations with pupils, characterized by mutual affection and sympathetic understanding and, thus, be successful. Teachers who scored at the other extreme of the scale were considered as attempting to dominate the classroom and, thus, were expected to create a less pleasant learning environment (Cook, Leeds, and Callis, 1965).

A factor analytic study by Ferguson, Brown, and Callis (Gage, 1963) concluded that the MTAI measured a single positive attitude factor. A review of the MTAI by Arnold (Buros, 1953) stated that the MTAI deserved extensive use in research, based on his opinion that consistent and thorough work had gone into construction and validation of the inventory. Cronbach (Buros, 1953) also reviewed the MTAI and reported a clear correspondence between scores on the instrument and teaching behavior at the time of the test. His critique also stated that the Minnesota Teacher Attitude Inventory was as well designed and executed as any actuarial test could be and that it was a promising tool for research on predicted teaching success.

Teacher Opinion Check

The Teacher Opinion Check (TOC) is an adaptation and extension by the researcher of a 13-item attitude questionnaire developed by Shotel.[1] The original instrument was used by Shotel, Iano, and McGettigan (1972) in their study "Teacher Attitudes Associated with the Integration of Handicapped Children." Using appropriate validation procedures discussed later, 7 items were added to the research instrument in order to attain adequate EMH construct validity, resulting in a 20-item instrument (Appendix B).

The TOC is designed to measure two basic attitudes: (1) the teacher's attitude toward the educable mentally handicapped and (2) his attitude toward his own competency to teach the educable mentally handicapped. This is done by measuring attitudes toward placement of the EMH, toward their social and academic ability, toward concessions and adjustments in classroom organization and instruction, toward teacher responsibility and remuneration when EMH children are placed in regular classes, and toward the competency of regular classroom teachers to teach the EMH. Each subject responding to the TOC obtained a score for each of the five subtests and a composite score for the instrument.

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[1]Permission for the adaptation was granted by J. R. Shotel, George Washington University.

Validation of the TOC

The following steps were employed in the construct validation and quantification of the instrument:

1. From discussions and interviews with teachers and administrators, statements were collected which related to the attitude objective. These were added to the Shotel instrument.

2. Statements were written modeling the Shotel form for attitude measure; each item was given multiple response categories of "strongly agree," "agree," "undecided," "disagree," or "strongly disagree."

3. The statements were presented to 15 professional special educators in the form of a list. These persons had administrative positions in special education programs of public schools or taught in university special education departments. They were asked to respond to items in terms of whether or not each related to the instrument objective, in terms of clarity of the statement, and to provide any feedback they felt relevant to the development of the instrument.

4. When two or more persons responded with similar critical comments about an item, the item was discarded or amended according to the responses. The instrument was revised to reflect the 20 statements that were most closely related to the two attitude objectives.

In order to quantify items of the instrument, normative data were collected from: (1) 25 administrators in special education from throughout Michigan; (2) 12 faculty members in the special education departments of Michigan State University and Western Michigan University; (3) 26 senior special education students from Western Michigan

University; and (4) a sample of 19 teachers of both regular and special education registered in a graduate course in education at Western Michigan University.

The procedure adhered to was:

1. The 82 members of the normative data group were asked to read each statement and place a "5" by the responses which they felt represented the most positive attitude of a potential respondent. A "4" was to be placed by the next most positive attitude, followed by placing a "3," a "2," and finally a "1," representing the most negative attitude of a potential respondent.

2. The four categories of normative group members were treated separately; responses for each item were totaled.

3. A weight was assigned to each total to equalize group size.

4. A mean of the four totals was established for each item. The highest mean was given a value of 5, the next highest a value of 4, the third highest a value of 3, the fourth highest a value of 2, and the lowest mean a value of 1.

The Teacher Opinion Check does not yield "correct" or "incorrect" answers, nor does it lend itself to pre- and posttesting. A highly rigorous procedure for determining the construct validity could not be employed, since attitude research on this topic has not produced generally accepted validation instruments. Therefore, interpretation of subjects' scores on the TOC is restricted somewhat by the instruments used and limited to comparisons with the normative data collected by the researcher (Appendix C).

Collection of Data

Packets--each containing the three self-administered instruments, a letter explaining the purpose of the study, and a self-addressed, stamped envelope--were sent to the randomly selected sample of teachers representing the four comparison groups. Though 70.4 percent of those contacted responded, two subjects were dropped due to the return of incomplete data and one because he did not meet the criteria for the sample.

CHAPTER IV

ANALYSIS OF DATA

Analysis of data was limited to comparisons and correlations. Each research hypothesis was tested by analysis of variance, *t* test, or the Pearson product-moment correlation. The unbalanced analysis of variance was used due to the variation in group size. The study permitted examination and comparison of attitude-measure scores, but did not allow comparison of change scores, as pre- and posttest data were not collected.

Whenever F values were significant at the .05 level or higher, analysis of variance procedures also included the Scheffé Test. This test was utilized to determine the source of significant differences by making all pairwise comparisons between mean scores. Of the several methods used for paired comparisons among group means following analysis of variance, the Scheffé Test and the Tukey Test are the two which produce the fewest Type 1 errors and are least susceptible to violation of stated requirements (Kirk, 1972).

The .05 level of significance was selected to test hypotheses. Actual probabilities greater than .05 and less than .05 were reported in the analysis of variance tables.

Interrelationship of Attitudes

The hypothesis that teachers who have positive attitudes toward teaching also have positive attitudes toward the educable mentally handicapped and toward their own ability to teach these children was not supported by the data in the study. The most positive attitudes toward teaching, as reflected by MTAI scores, belonged to teachers who received resource room or consultant support for any identified EMH children in their regular classes (Group 2). This group had a mean score of 49.75. Teachers who received no support for those in their regular classes identified as EMH (Group 3) obtained a nearly identical mean score of 49.71. Table 10 shows the mean scores and standard deviations for the MTAI and the TOC.

TABLE 10.--Mean scores on Minnesota Teacher Attitude Inventory and Teacher Opinion Check for groups

Group	N	MTAI		TOC	
		Mean	SD	Mean	SD
1	14	38.29	24.80	75.21	4.61
2	12	49.75	36.14	72.17	6.75
3	14	49.71	16.56	69.21	6.22
4	45	36.67	36.31	68.60	6.58

Most positive attitudes toward the EMH and their ability to teach the EMH were reflected by the Teacher Opinion Check mean score of teachers who taught special

education classes of educable mentally handicapped (Group 1). They had a mean score of 75.21.

The data from this study indicate that teachers with the most negative attitudes toward teaching (MTAI) also have the most negative attitudes toward the EMH and their ability to teach the EMH (TOC). Regular class teachers who did not have any children in their classes who had been identified as EMH (Group 4) had the lowest mean score on the MTAI (36.67), and also the lowest mean score measured by the Teacher Opinion Check (68.60).

The correlation between the two attitude instruments, as measured by the Pearson product-moment correlation coefficient, was .176, not significant at the .05 level.

Attitudes and Age

The hypothesis that teachers younger than 30 years old manifest more positive attitudes toward teaching, toward the EMH, and toward their ability to teach the EMH than teachers over 30 was supported by the data in the study.

The highest mean score on the MTAI (49.69) was obtained by the youngest age group, those 20 to 30 years old. Mean scores diminished as age increased; those 31 to 40 years old had a mean score of 41.81; those 41 to 50 years old had a mean score of 39.58; and those over 51 years old had a mean score of 26.00. However, differences

in mean scores were not significant at the .05 level.

The highest mean score on the TOC was also obtained by the youngest group (72.56), but it was interesting to note that those over 51 years old obtained the second highest score (69.90). Table 11 reports the TOC mean scores, standard deviations, and F value by age groups. Differences in means, significant at the .05 level, were found between the 20-to-30-year-old group and the 41-to-50-year-old group.

TABLE 11.--Analysis of variance summary of Teacher Opinion Check by age

Age Group	TOC Scores		
	N	M	SD
20-30 years old	36	72.56	6.32
31-40 years old	16	68.63	5.89
41-50 years old	12	66.42	6.13
51 and older	21	69.90	6.95

ANOVA

Source of Variance	DF	SS	MS	F	Prob
Between groups	3	412.29	137.43	3.37	.02
Within groups	81	3297.36	40.71		
Total	84	3709.65			

Significant differences among age scores were also observed on the TOC subtests Placement and Ability. Table 12 presents the mean scores, standard deviations, and F value for the Placement subtest for the four age groups.

The youngest group had the highest mean score (16.83), and the oldest group again had the second highest score (14.05). While differences from analysis of variance were significant at the .05 level, this significance did not survive the rigors of the Scheffé Test. The greatest difference observed was between the group 20 to 30 years old and those 30 to 40 years old (13.69).

TABLE 12.--Analysis of variance summary of Teacher Opinion Check subtest Placement by age

Age Group	Placement Scores		
	N	M	SD
20-30 years old	36	16.83	3.85
31-40 years old	16	13.69	3.70
41-50 years old	12	13.67	4.21
51 and older	21	14.05	4.44

ANOVA

Source of Variance	DF	SS	MS	F	Prob
Between groups	3	187.99	62.66	3.86	.02
Within groups	81	1314.06	16.22		
Total	84	1502.05			

The highest mean score was gained by the 31-to-40-year-old group on the subtest Ability. The second highest score was obtained by those 20 to 30 years old. Lowest score was acquired by those 41 to 50 years old. Table 13 shows the mean scores, standard deviations, and F value for the Ability subtest for the four age groups. Significant

differences were found between those 20 to 30 years old (7.33) and those 41 to 50 years old (5.50), and between those 31 to 40 years old (7.56) and those 41 to 50 years old.

TABLE 13.--Analysis of variance summary of Teacher Opinion Check subtest Ability by age

Age Group	Ability Scores		
	N	M	SD
20-30 years old	36	7.33	1.53
31-40 years old	16	7.56	1.41
41-50 years old	12	5.50	1.57
51 and older	21	6.86	1.98

ANOVA

Source of Variance	DF	SS	MS	F	Prob
Between groups	3	36.49	12.16	4.53	.005
Within groups	81	217.51	2.69		
Total	84	254.00			

The data suggest that teachers under 30 years old tend to have more positive attitudes toward teaching, toward the EMH, and toward their ability to teach the EMH than do teachers who are over 30.

Attitudes and Sex

The researcher elected not to analyze the differences on MTAI and TOC scores on the sex factor due to the small sample of males (N = 7).

Attitudes and Training

It was hypothesized that teachers who have had coursework in special education are more positive toward the EMH and toward their own ability to teach them than are teachers who have had no coursework in special education. The hypothesis had some support from the data analyzed.

When teachers were grouped according to the number of semester hours completed in courses offered through university special education departments and their scores on the TOC compared, the highest two mean scores were achieved by the teachers in the groups representing the most and the next-most semester hours completed. When pairwise comparisons were made, the greatest differences between mean scores were seen between the group with over 20 semester hours in special education courses (74.18) and the group with 4 to 7 semester hours (66.60), and between the group with 16 to 20 semester hours (75.50) and the group with 4 to 7 hours. However, these differences, due to the rigors of the Scheffé Test, were not significant at the .05 level. Table 14 reports the TOC mean scores, standard deviations, and F value by coursework hours completed.

The mean score of subjects whose Bachelors' or Masters' degrees were earned in special education of the mentally handicapped were compared with the mean score of

TABLE 14.--Analysis of variance summary of Teacher Opinion Check and coursework hours in special education

Coursework Hours	TOC Scores		
	N	M	SD
0-3 semester hours	40	70.07	6.70
4-7 semester hours	15	66.60	5.78
7-10 semester hours	5	72.20	2.95
11-15 semester hours	8	67.88	7.70
16-20 semester hours	6	75.50	4.81
Over 20 semester hours	11	74.18	5.71

ANOVA

Source of Variance	DF	SS	MS	F	Prob
Between groups	5	600.46	120.10	3.05	.02
Within groups	79	3109.19	39.36		
Total	84	3709.65			

subjects whose degrees were awarded in other areas. On all TOC measures the group with special education degrees had higher scores. On the TOC and the subtest Concessions the difference between scores was statistically significant. Table 15 presents the results of the t test for the TOC. The t value was significant at the .01 level. The subtest Concessions mean score, standard deviations, and t value are shown on Table 16. This t value was also significant at the .01 level.

TABLE 15.--Mean score difference on Teacher Opinion Check subjects with and subjects without degree(s) in special education

Degree	TOC Scores			
	N	M	SD	t
Degree(s) in special education	18	74.89	4.80	-3.493*
No degree(s) in special education	67	69.10	6.56	

*p < .01

TABLE 16.--Mean score difference on Teacher Opinion Check subtest Concessions subjects with and subjects without degree(s) in special education

Degree	Concessions Scores			
	N	M	SD	t
Degree(s) in special education	18	30.89	4.10	-2.949*
No degree(s) in special education	67	28.12	3.38	

*p < .01

Attitudes and Experience

It was hypothesized that length of teaching experience is not a significant factor in influencing attitudes toward teaching, toward the EMH, or toward the teacher's ability to teach the EMH; however, data suggest that experience is such a factor.

When subjects were grouped by the total years of teaching experience, highest scores were obtained by those

with 2 to 6 years of experience. The significant differences were attributed to the group with 2 to 4 years of teaching experience (68.64) and those with 10 to 20 years of experience (29.48), and to those with 2 to 4 years of experience and those with more than 20 years of teaching (28.57). Table 17 shows MTAI mean scores, standard deviations, and F value for the experience groups. Differences were significant at the .01 level.

TABLE 17.--Analysis of variance summary of Minnesota Teacher Attitude Inventory by total years of teaching experience

Experience	MTAI Scores		
	N	M	SD
0 or less than 1 year	4	33.25	23.41
1-2 years	6	43.17	22.87
2-4 years	14	68.64	17.45
4-6 years	7	60.14	39.30
6-8 years	9	46.22	30.95
8-10 years	5	30.80	30.34
10-20 years	23	29.48	31.54
Over 20 years	17	26.88	31.03

ANOVA

Source of Variance	DF	SS	MS	F	Prob
Between groups	7	20738.06	2963.00	3.45	.003
Within groups	77	66117.51	858.70		
Total	84	86855.58			

The data indicated that teachers obtained increasingly

higher mean scores on the Minnesota Teacher Attitude Inventory as their total years of experience increased--up to the fourth year. Scores decreased from the fourth year of experience to the extent that the subjects with the lowest mean scores had the highest total years of experience.

When TOC scores were examined for the subjects grouped by total years of experience, no significant differences were observed. However, teachers in the "less than one year of experience" group had the highest mean score (75.29), while teachers in the two groups representing the greatest number of years of experience had the lowest mean scores (67.22; 69.35).

Differences among mean scores on the TOC were significant when subjects were regrouped to increase sample size within each category. This difference could not be considered significant after applying the Scheffé Test procedure; however, the largest difference was accounted for between the most inexperienced group (73.40) and those with the greatest amount of experience (68.13). Table 18 shows the TOC mean scores, standard deviations, and F value for the experience categories regrouped.

Significant differences also appeared on the TOC subtest Placement. Table 19 shows the results of the analysis of variance. Those with 6 to 10 years of teaching experience had a significantly higher (more positive) score

(17.00) than those with over 10 years of experience (13.40).

TABLE 18.--Analysis of variance summary of Teacher Opinion Check by total years of teaching experience

Experience	TOC Scores		
	N	M	SD
0-2 years	10	73.40	7.76
2-6 years	21	71.38	5.81
6-10 years	14	72.64	4.36
Over 10 years	40	68.13	6.90

ANOVA

Source of Variance	DF	SS	MS	F	Prob
Between groups	3	386.71	128.90	3.14	.03
Within groups	81	3322.94	41.02		
Total	84	3709.65			

Data were also analyzed when experience was limited to years of teaching the educable mentally handicapped. Because only a small number of subjects (N = 18) had more than one year of experience teaching the EMH, it was necessary to group the subjects in two categories: those with less than one year of experience teaching the EMH and those with over one year of experience.

Significant differences in mean scores were observed for the TOC and the two subtests Teacher Competency and Concessions. Higher (more positive) scores were obtained by teachers with greater experience teaching EMH. Table 20

presents the mean scores, standard deviations, and t value for the TOC.

TABLE 19.--Analysis of variance summary of Teacher Opinion Check subtest Placement by total years of teaching experience

Experience	Placement Scores		
	N	M	SD
0-2 years	10	17.20	4.37
2-6 years	21	16.10	3.90
6-10 years	14	17.00	2.54
Over 10 years	40	13.40	4.27

ANOVA

Source of Variance	DF	SS	MS	F	Prob
Between groups	3	231.04	77.01	4.91	.003
Within groups	81	1271.01	15.69		
Total	84	1502.05			

TABLE 20.--Mean score difference on Teacher Opinion Check subjects with more than one year and less than one year of experience teaching educable mentally handicapped

Experience	TOC Scores			
	N	M	SD	t
None or less than 1 year	67	69.33	6.82	2.678*
More than 1 year	18	73.89	4.48	

*$p < .01$

The data collected and analyzed suggest that experience may be a factor influencing attitude, contrary to

the hypothesis stated. Highest mean scores were most often earned by least experienced or moderately experienced subjects.

One further comparison related to teaching experience was made. Subjects were grouped according to the number of years that had elapsed since they received their most recent degrees. On the TOC and its subtest Placement, significant differences were observed. Table 21 shows the mean scores, standard deviations, and F value for the TOC. The Scheffé Test pinpointed the significant difference as being between the group who received degrees within the last 6 to 10 years (73.67) and those whose most recent degrees were received more than 10 years ago (66.95).

TABLE 21.--Analysis of variance summary of Teacher Opinion Check by years since receiving last degree

Years Since Last Degree	TOC Scores		
	N	M	SD
Less than 1 year	14	70.71	7.30
1-2 years	7	73.43	4.58
3-5 years	27	70.11	5.81
6-10 years	15	73.67	6.17
More than 10 years	22	66.95	6.87

ANOVA

Source of Variance	DF	SS	MS	F	Prob
Between groups	4	488.12	122.00	3.03	.022
Within groups	80	3221.52	40.27		
Total	84	3709.65			

Attitudes and Contact with the EMH

It was hypothesized that the amount of in-school contact teachers have with EMH children would be positively related to their attitudes toward their ability to teach the EMH. In-school contact was defined as regularly scheduled responsibility for the EMH, whether in classrooms, lunchrooms, or at recess.

Because of the size of the sample with no in-school contact with the EMH (N = 50), and the small number of subjects when grouped by number of contact hours with the EMH per week, it seemed appropriate to categorize subjects by those with no in-school contact and those with some in-school contact with the EMH. According to the data analyzed in this study, contact appeared to influence attitude toward ability to teach the EMH; however, amount of contact could not be further analyzed.

Teachers who had some in-school contact with the EMH had significantly higher mean scores on the instrument designed to measure their attitudes toward the EMH and their ability to teach them. Table 22 shows the mean scores, standard deviations, and t value for the TOC. The t values from analysis of the subtests Placement and Concessions were also significant. The teachers with some in-school contact had higher scores than those with no in-school contact, as predicted, although the effect of amount of contact could not be analyzed.

TABLE 22.--Mean score difference on Teacher Opinion Check subjects with and subjects without in-school contact with educable mentally handicapped

Contact	TOC Scores			
	N	M	SD	t
No in-school contact with EMH	50	68.32	6.01	3.48*
Some in-school contact with EMH	35	73.11	6.57	

*p < .01

Attitudes and Present Assignment

Attitudes, as measured by the mean scores from the MTAI, differed very little among the groups representing four teaching settings (Groups 1, 2, 3, and 4). No pattern was apparent. Mean scores and standard deviations are shown in Table 10 above.

Attitudes were also compared within the four groups on scores from the Teacher Opinion Check. Statistically significant differences were observed which suggest a pattern. Teachers who taught special education classes of EMH obtained the highest score (75.21) on the TOC. Teachers who had no children in class who had been identified as EMH obtained the lowest score (68.60). The use of the Scheffé Test of multiple comparisons revealed the significant differences to be between the scores of these two groups. These groups represent the most and the least

in-school contact with the EMH. Table 23 shows the TOC mean scores, standard deviations, and F value for the four groups.

TABLE 23.--Analysis of variance summary of Teacher Opinion Check for groups

Group	TOC Scores		
	N	M	SD
(1) Special education teachers	14	75.21	4.61
(2) Regular teachers with support	12	72.17	6.75
(3) Regular teachers with no support	14	69.21	6.22
(4) Teachers with no EMH children	45	68.60	6.58

ANOVA

Source of Variance	DF	SS	MS	F	Prob
Between groups	3	526.47	175.50	4.47	.006
Within groups	81	3183.18	39.30		
Total	84	3709.65			

Special education teachers also obtained the highest score on the TOC subtest Concessions (30.86). The teachers with no children in class identified as EMH again had the lowest mean score (27.71). The difference between these two mean scores was significant at the .05 level. Table 24 reports the mean scores, standard deviations, and F value for the groups on the subtest Concessions.

TABLE 24.--Analysis of variance summary of Teacher Opinion Check subtest Concessions for groups

Group	Concessions Scores		
	N	M	SD
(1) Special education teachers	14	30.86	4.24
(2) Regular teachers with support	12	28.92	3.20
(3) Regular teachers with no support	14	29.00	2.88
(4) Teachers with no EMH children	45	27.71	3.47

ANOVA

Source of Variance	DF	SS	MS	F	Prob
Between groups	3	110.31	36.77	3.03	.03
Within groups	81	983.87	12.15		
Total	84	1094.19			

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The primary purpose of this study was to examine and compare attitudes of teachers toward teaching, toward the educable mentally handicapped (EMH), and toward their ability to teach the EMH in four school settings, as well as in groups categorized by teacher age, sex, experience, training, and the amount of in-school contact with the EMH.

Summary

Major hypotheses were:

1. Teachers who have positive attitudes toward teaching also have positive attitudes toward educable mentally handicapped children and their own ability to teach these children.

2. Teachers who are under thirty years old are more positive in attitudes toward teaching, toward the EMH, and toward their competency to teach the EMH than are teachers who are over thirty years old.

3. There is no significant difference between scores on attitude measures of male and female teachers.

4. Teachers who have completed coursework offered in university special education departments are more positive toward the educable mentally handicapped and toward their own ability to teach them than are teachers who have had no coursework in special education.

5. Length of teaching experience is not a significant factor in influencing attitudes of

teachers toward teaching, toward the EMH, or toward their competency to teach the EMH.

6. The amount of in-school contact a teacher has had with the educable mentally handicapped is positively related to his attitude toward his ability to teach the educable mentally handicapped.

The 85 subjects included in this study responded from a pool of 125 teachers who were selected from teachers employed during the 1972-1973 school year in the public schools of St. Clair County or Oakland County, Michigan. Each respondent met one of the following criteria: Group 1--teachers who taught special classes of identified educable mentally handicapped children 7 to 10 years old (N = 14); Group 2--teachers who taught regular classes of children 7 to 10 years old and received supportive services for those in the class identified as educable mentally handicapped (N = 12); Group 3--teachers who taught regular classes of children 7 to 10 years old but received no supportive services for those children identified as educable mentally handicapped (N = 14); and Group 4--teachers who taught regular classes of children 7 to 10 years old but had no child in class identified as educable mentally handicapped (N = 45).

All data were collected during May and June of 1973. Three instruments were self-administered by all subjects. These instruments were: (1) Personal Information Questionnaire; (2) Minnesota Teacher Attitude Inventory; and (3) Teacher Opinion Check.

The data were punched on data cards, and analyses were performed at the Western Michigan University Computer Center. The specific analytic procedures used were: (1) unbalanced analysis of variance with additional treatment employing the Scheffé Test for statistically significant data; (2) *t* tests; and (3) the Pearson product-moment correlation. All decisions pertaining to significance were made at the .05 level.

Conclusions

> Teachers who have positive attitudes toward teaching also have positive attitudes toward educable mentally handicapped children and their own ability to teach these children.

The first hypothesis was not supported by the data. Highest scores on the MTAI, representing most positive attitudes, were attained by Groups 2 and 3. These two groups ranked second and third on the TOC scores. The highest score from the TOC was attained by Group 1 subjects, who had the third highest score on the MTAI. The single consistent rank was the lowest score on each measure, held by Group 4. The correlation coefficient between the two instruments ($r = .176$) was not significant at the .05 level.

As lowest score on both measures was earned by the same group, further examination and comparison could determine whether this occurred by chance or whether a statistically significant relationship exists between negative

attitudes.

> Teachers who are under thirty years old are more positive in attitudes toward teaching, toward the EMH, and toward their competency to teach the EMH than are teachers who are over thirty years old.

The second hypothesis received support from the data. On the MTAI, scores ranked from highest to lowest matched age groups from youngest to oldest, although differences among scores were not significant at the .05 level. On the TOC, the highest score was attained by the youngest group. This pattern followed for each of the TOC subtests except Ability. On the subtest Ability the highest score was attained by the 31-to-40 age group, but the score for the under-30 age group was second highest and very similar.

The role of age as a factor influencing attitudes should receive further research by controlled experimentation. Because of the small sample size in this study, it was necessary to group subjects by 10-year age intervals. A larger sample would allow a more refined breakdown of age groups.

> There is no significant difference between scores on attitude measures of male and female subjects.

It was not possible to carry through with analysis of data of male subjects compared to female subjects. The small number of males (N = 7) precluded meaningful analysis. The sample did, however, represent the population in male to female ratio. Sample size would need to be considerably increased to provide an appropriate number of

male subjects for analysis.

> Teachers who have completed coursework offered in university special education departments are more positive toward the EMH and toward their own ability to teach them than are teachers who have had no coursework in special education.

Coursework in special education received limited analysis. When six ranges of course hours completed were analyzed, the highest two scores belonged to the two groups who had completed the most semester hours in special education coursework. However, it did not follow that the lowest score belonged to the group with the least coursework completed. In fact, no pattern could be discerned from the scores.

Because almost half of the sample (N = 40) had completed little or no coursework in special education, it was necessary to categorize the subjects by whether they had had some coursework (over 4 semester hours) or little or no coursework (0-3 semester hours). On the TOC and its four subtests, the group with some completed special education coursework hours had higher mean scores than the group with little or no coursework hours. The differences between scores were not significant at the .05 level.

Subjects were also grouped by whether or not they had earned a degree in special education of the mentally handicapped. On the TOC and its subtests, mean scores were higher for the group holding Bachelors' or Masters' degrees in special education than for the group whose degrees were

in other areas. For the TOC and the subtest Concessions, this difference was significant at the .01 level.

Need for follow-up study, using a larger sample and focusing on the role of training on attitudes of teachers toward the EMH and their ability to teach the EMH, is indicated. Specific course content should be explored. Pre- and posttest attitudinal measures to ascertain change produced by completion of specific courses would be appropriate. Though data from this study supported the fourth hypothesis, the present study was too broad to allow projection of a general thesis regarding the role of coursework and degrees in special education.

> Length of teaching experience is not a significant factor in influencing attitudes of teachers toward teaching, toward the EMH, or toward their competency to teach the EMH.

The role of experience as a factor in influencing attitudes was interesting to observe in this study. Interpretation must be restricted to the data presented, but challenges for future studies abound.

The MTAI attempted to measure attitudes of subjects toward teaching and, thus, to identify successful teachers. Scores from this study indicated that teachers start their teaching careers with attitudes that become increasingly more positive for the first four years of their experience. After the fourth year, scores decrease to the point where teachers with the greatest number of years teaching have the most negative attitudes toward teaching.

Questions arising from analysis of these data include the following:

1. Is it the philosophy of teacher training institutions that is reflected in these scores? Are teachers emerging from colleges and universities with attitudes learned in their preparation?

2. What are the unknown factors that may be "turning teachers off" at this point in their careers? Is this the point where an "idealist" becomes a "realist"?

3. Do the increasingly more negative attitude scores reflect a change in the population? Do positive-attitude teachers leave the profession at a faster rate than do the more negative-attitude teachers?

4. Does the pattern observed for teaching experience also apply to other career experiences?

Scores from the TOC and its subtests did not present such a clear pattern for interpretation; however, teachers with the least experience had the highest scores (most positive attitudes), while teachers with the most experience had the lowest scores (least positive attitudes).

A challenge for research is: How can we preserve the positive attitudes reflected by the high scores of our newest teachers? Answers may have implications, not only for the successful school experiences of children, but for determining which teachers will stay within the profession and which will seek career satisfaction elsewhere.

Subjects were grouped according to their experience teaching the EMH. Fine discrimination of categories was not possible because of the large number of subjects with

less than one year of teaching the EMH (N = 67). Subjects were compared by those who had experience, and those who had little or no experience teaching the EMH. Higher MTAI and TOC mean scores were acquired by those with some teaching experience with the EMH. Differences between scores were statistically significant for the TOC and subtests Teacher Competency and Concessions.

Need for replication of the present study with a larger sample for more discrimination among categories is indicated.

Length of teaching experience appeared to be a factor influencing attitudes, but the kind of experience and the extent to which attitudes are influenced should be studied further. As highest scores were most frequently earned by the subjects with the least or only moderate experience in teaching, the negative role of extended experience should be examined also.

When subjects were grouped by the number of years that had elapsed since they received their most recent degree, results were difficult to interpret. On the TOC and its subtests, the highest score (most positive attitude) was acquired by the group whose degrees were received 6 to 10 years ago, but the lowest score (least positive attitude) was obtained by the next group, those who had received their most recent degree over 10 years ago. On the MTAI, the group with the most recent degrees had the

highest mean score, and the group whose degrees were received over 10 years ago had the lowest scores.

> The amount of in-school contact a teacher has had with the educable mentally handicapped is positively related to his attitude toward his ability to teach the educable mentally handicapped.

It was not possible to analyze the effect of various amounts of in-school contact because of the size of the sample who had no in-school contact with the EMH (N = 50); however, on every measurement, those with some contact had higher scores than those with no contact. On the TOC and subtests Placement and Concessions, these differences were statistically significant.

When examined within the four school settings, Group 1, who taught special classes of EMH children and thus had maximum in-school contact with them, had significantly higher scores than Group 4, who taught regular classes where no child had been identified as EMH and who had the least in-school contact with EMH. This was significant at the .01 level.

A larger sample would allow more refined categories of amount of contact. Type of contact should also be investigated further.

Within the assumptions and limitations of this study, interpretation of data indicates that the attitudes most conducive to successful placement of EMH children are held by teachers under 30, with over 20 semester hours of special education coursework leading to a Bachelor's or a

Master's degree in special education for the mentally handicapped, who have taught less than four years, part of which was with the EMH--if not there, in regular classes with regularly scheduled responsibility for the EMH in some in-school capacity.

Recommendations

Questions for further research include the following:

1. Are negative attitudes on the MTAI related to negative attitudes toward the EMH and teaching the EMH?

2. When teachers under 30 years of age consistently respond with more positive attitudes than teachers over 30, what unknown factors are at work?

3. Do males and females hold significantly different attitudes?

4. What specific courses in special education can produce positive changes in attitudes toward the EMH and teaching them? What should be the content of these courses, and what is their number? Results would have implications for general education as well as special education.

5. Are negative and positive attitudes toward the EMH, teaching the EMH, and toward teaching in general learned attitudes being taught during teacher preparation?

6. What factors might account for teachers being most positive during the early years of their careers and becoming more negative as their experience in teaching increases?

7. Can "experience" be differentiated? Do some types of teaching experiences lead to more negative attitudes than other types?

8. What type and amount of in-school contact produces the most positive attitudes toward the EMH and ability to teach them?

Teacher training institutions and school administrators might consider the following suggested applications of the findings of this study:

1. Include special education courses for all students in teacher preparation.

2. Provide opportunity for students in all areas of teacher preparation to work with educable mentally handicapped children as a practicum experience.

3. Provide periodical in-service sessions designed to bring on-the-job teachers new information about their profession and give them techniques that have proven successful in experimental settings.

4. Provide experienced teachers with a role change every fifth year, for example, where they would receive financial incentive to enter an internship supervised by a teacher with special education certification to work with exceptional children. Two such internships could qualify the teacher for temporary approval to teach these children.

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REFERENCES

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APPENDIX A

PERSONAL INFORMATION QUESTIONNAIRE

Group: 1 2 3 4

Number _____

PERSONAL INFORMATION QUESTIONNAIRE

Indicate choice by circling appropriate response. | Computer Use Only

1. Sex

   a. Male
   b. Female | 4.

2. Age

   a. 20-25
   b. 26-30
   c. 31-35
   d. 36-40
   e. 41-45
   f. 46-50
   g. 51-60
   h. Over 60 | 5.

3. Present teaching position

   a. Special education--EMH
   b. Regular education
   c. Other (explain) _____

4. Length of time in present position

   a. Less than 1 year
   b. More than 1 year--less than 2 years
   c. More than 2 years--less than 4 years
   d. More than 4 years--less than 6 years
   e. More than 6 years--less than 8 years
   f. More than 8 years--less than 10 years
   g. More than 10 years--less than 20 years
   h. More than 20 years | 6.

5. Total years teaching Special Education--EMH

a. 0 or less than 1 year
b. More than 1 year--less than 2 years
c. More than 2 years--less than 4 years
d. More than 4 years--less than 6 years
e. More than 6 years--less than 8 years
f. More than 8 years--less than 10 years
g. More than 10 years--less than 20 years
h. More than 20 years 7.

6. Total years teaching other than Special Education--EMH

a. 0 or less than 1 year
b. More than 1 year--less than 2 years
c. More than 2 years--less than 4 years
d. More than 4 years--less than 6 years
e. More than 6 years--less than 8 years
f. More than 8 years--less than 10 years
g. More than 10 years--less than 20 years
h. More than 20 years 8.

7. Total years of teaching experience

a. 0 or less than 1 year
b. More than 1 year--less than 2 years
c. More than 2 years--less than 4 years
d. More than 4 years--less than 6 years
e. More than 6 years--less than 8 years
f. More than 8 years--less than 10 years
g. More than 10 years--less than 20 years
h. More than 20 years 9.

8. Highest degree awarded

a. No degree
b. Bachelor's degree
c. Master's degree
d. Specialist or Doctorate 10.

9. Bachelor's degree awarded

a. In Special Education--M.R.
b. In Special Education--other area
c. In Elementary Education
d. Other (explain) _____
e. None awarded 11.

10. Master's degree awarded

a. In Special Education--M.R.
b. In Special Education--other area
c. In Elementary Education
d. Other (explain) _____
e. None awarded

12.

11. Years since receiving degree

a. Less than 1 year
b. 1-2 years
c. 3-5 years
d. 6-10 years
e. Over 10 years

13.

12. Present status of training

a. Working toward Bachelor's degree
b. Working toward Master's degree
c. Working toward Specialist or Doctorate
d. Taking courses but not toward degree
e. Goal completed--not enrolled

14.

13. Estimated number of semester hours earned in Special Education courses

a. 0-3
b. 4-7
c. 7-10
d. 11-15
e. 16-20
f. Over 20

15.

14. Number of in-school contact hours with the EMH per week

a. 0
b. Less than 2
c. 2-4
d. 5-7
e. 8-10
f. 11-15
g. 16-20
h. Over 20

16.

APPENDIX B

TEACHER OPINION CHECK

Group: 1 2 3 4

Number _____

TEACHER OPINION CHECK

The child described as Educable Mentally Handicapped (EMH) generally has an I.Q. which falls into the 50-to-75 range.

Please check the response after each statement which most closely represents your opinion.

1. EMH children should be in schools for special children.

_____ Strongly agree
_____ Agree
_____ Undecided
_____ Disagree
_____ Strongly disagree

2. EMH children should be in special classes in regular schools.

_____ Strongly agree
_____ Agree
_____ Undecided
_____ Disagree
_____ Strongly disagree

3. EMH children should be in regular classes for most of the day and attend special classes or resource rooms for part of the day.

_____ Strongly agree
_____ Agree
_____ Undecided
_____ Disagree
_____ Strongly disagree

4. EMH children should be in regular classes for most of the day and receive individual help from an education specialist for part of the day.

_____ Strongly agree
_____ Agree
_____ Undecided
_____ Disagree
_____ Strongly disagree

5. EMH children should be in regular classes which receive individual help from an education specialist for part of the day.

_____ Strongly agree
_____ Agree
_____ Undecided
_____ Disagree
_____ Strongly disagree

6. Regular classes containing EMH children should be limited in size.

_____ Strongly agree
_____ Agree
_____ Undecided
_____ Disagree
_____ Strongly disagree

7. Regular classes containing EMH children should utilize paraprofessionals (aides).

_____ Strongly agree
_____ Agree
_____ Undecided
_____ Disagree
_____ Strongly disagree

8. Regular classes containing EMH children should have a shortened daily schedule.

_____ Strongly agree
_____ Agree
_____ Undecided
_____ Disagree
_____ Strongly disagree

9. Certified elementary education teachers with no training in Special Education generally have the training and competency to teach EMH children.

_____ Strongly agree
_____ Agree
_____ Undecided
_____ Disagree
_____ Strongly disagree

10. Certified elementary education teachers with no training in Special Education generally have the training and competency to teach EMH children if provided with supportive services; i.e., consultants, resource rooms, etc.

_____ Strongly agree
_____ Agree
_____ Undecided
_____ Disagree
_____ Strongly disagree

11. Certified elementary education teachers with no training in Special Education generally have the training and competency to teach EMH children if special considerations are exercised (see 6, 7, 8).

_____ Strongly agree
_____ Agree
_____ Undecided
_____ Disagree
_____ Strongly disagree

12. Teachers of EMH children, in special or regular classrooms, should be released from extra-classroom duties; i.e., lunchroom and playground supervision, after-school activities, etc.

_____ Strongly agree
_____ Agree
_____ Undecided
_____ Disagree
_____ Strongly disagree

13. Teachers of EMH children should be compensated above the regular salary schedule.

_____ Strongly agree
_____ Agree
_____ Undecided
_____ Disagree
_____ Strongly disagree

14. Teachers of EMH children need released school time for planning, home visits, record-keeping, etc.

_____ Strongly agree
_____ Agree
_____ Undecided
_____ Disagree
_____ Strongly disagree

15. The EMH child can function socially at his age (or grade) level if he receives appropriate help in school.

_____ Strongly agree
_____ Agree
_____ Undecided
_____ Disagree
_____ Strongly disagree

16. The EMH child can lead a normal adult life--function adequately personally, socially, and vocationally--if he receives an appropriate education.

_____ Strongly agree
_____ Agree
_____ Undecided
_____ Disagree
_____ Strongly disagree

17. Special materials are needed for most EMH children.

_____ Strongly agree
_____ Agree
_____ Undecided
_____ Disagree
_____ Strongly disagree

18. Special methods are needed for most EMH children.

_____ Strongly agree
_____ Agree
_____ Undecided
_____ Disagree
_____ Strongly disagree

19. More dollars-per-child should be allocated for educational materials for the EMH children than for children of normal intelligence.

_____ Strongly agree
_____ Agree
_____ Undecided
_____ Disagree
_____ Strongly disagree

20. Educational programs for EMH children should be extended to 12 months.

_____ Strongly agree
_____ Agree
_____ Undecided
_____ Disagree
_____ Strongly disagree

General comments or comments on specific items are welcomed, as they prove helpful in clarifying opinions. Please add any comments you may have by writing on the reverse side of this form. Thank you.

APPENDIX C

TEACHER OPINION CHECK

Normative Data

TEACHER OPINION CHECK

Normative Data

Four categories of respondents reacted to the TOC. They were asked to rate the most positive response to each item with a 5. A rating of 1 would indicate the most negative response. A weight was assigned each group total to equalize group size. The weighted mean for each group, total mean, and rank order are reported below for each of the 20 statements of the TOC. The rank order for any response was interpreted as the subject's "score" for that response when the TOC was self-administered by the subjects in this study.

(SA = Strongly Agree; A = Agree; U = Undecided; D = Disagree; and SD = Strongly Disagree)

1. EMH children should be in schools for special children. (Placement)

	SA	A	U	D	SD
Administrators	54.08	67.60	78.00	92.56	97.76
Faculty	45.57	58.59	78.12	97.65	110.67
Seniors	40.00	58.00	78.00	99.00	115.00
Teachers	57.54	67.13	78.09	90.42	97.27
Mean	49.30	62.83	78.05	94.91	105.17
Rank (Value)	1	2	3	4	5

2. EMH children should be in special classes in regular schools. (Placement)

	SA	A	U	D	SD
Administrators	86.64	99.64	77.98	71.48	54.15
Faculty	63.72	84.96	77.88	89.68	73.16
Seniors	76.00	88.00	78.00	90.00	58.00
Teachers	39.73	71.24	78.09	106.86	94.53
Mean	66.52	85.96	77.99	89.50	69.96
Rank (Value)	1	4	3	5	2

3. EMH children should be in regular classes for most of the day and attend special classes or resource rooms for part of the day. (Placement)

	SA	A	U	D	SD
Administrators	120.64	107.12	78.00	54.08	30.16
Faculty	106.20	106.20	77.88	63.72	35.40
Seniors	98.80	104.00	78.00	67.60	41.60
Teachers	110.97	98.64	78.09	61.65	41.10
Mean	109.15	103.99	77.99	61.76	37.06
Rank (Value)	5	4	3	2	1

4. EMH children should be in regular classes for most of the day and receive individual help from an education specialist for part of the day. (Placement)

	SA	A	U	D	SD
Administrators	99.84	111.28	78.00	61.36	39.52
Faculty	103.84	94.40	77.80	70.80	42.48
Seniors	83.20	98.80	78.00	74.88	55.12
Teachers	95.90	101.38	78.09	65.76	49.32
Mean	95.69	101.46	77.99	68.20	46.61
Rank (Value)	4	5	3	2	1

5. EMH children should be in regular classes which receive periodic supportive services from specialized personnel. (Placement)

	SA	A	U	D	SD
Administrators	78.00	87.36	78.00	83.20	63.44
Faculty	118.00	108.56	77.88	56.64	28.32
Seniors	62.81	83.39	77.98	89.89	75.81
Teachers	67.13	69.87	78.09	94.53	83.57
Mean	81.48	87.29	77.99	81.06	62.78
Rank (Value)	4	5	2	3	1

6. Regular classes containing EMH children should be limited in size. (Concessions)

	SA	A	U	D	SD
Administrators	108.16	100.88	78.00	61.36	41.60
Faculty	117.18	104.16	78.12	56.42	34.72
Seniors	110.00	106.00	78.00	59.00	37.00
Teachers	122.40	102.24	77.76	54.72	31.68
Mean	114.43	103.32	77.97	57.87	36.25
Rank (Value)	5	4	3	2	1

7. Regular classes containing EMH children should utilize paraprofessionals (aides). (Concessions)

	SA	A	U	D	SD
Administrators	94.64	95.68	78.00	70.72	50.96
Faculty	125.08	108.56	77.88	51.92	25.96
Seniors	118.56	106.08	78.00	56.16	31.20
Teachers	129.60	103.68	77.76	51.84	25.92
Mean	116.97	103.50	77.91	57.66	33.51
Rank (Value)	5	4	3	2	1

8. Regular classes containing EMH children should have a shortened daily schedule. (Concessions)

	SA	A	U	D	SD
Administrators	46.80	62.40	78.00	97.76	105.04
Faculty	56.64	70.80	77.88	101.48	82.60
Seniors	46.00	67.00	78.00	103.00	96.00
Teachers	51.84	69.12	77.76	90.72	99.36
Mean	50.32	67.33	77.91	98.24	95.75
Rank (Value)	1	2	3	5	4

9. Certified elementary education teachers with no training in Special Education generally have the training and competency to teach EMH children. (Competency)

	SA	A	U	D	SD
Administrators	70.72	75.92	78.00	88.40	76.96
Faculty	43.40	71.61	78.12	95.48	101.99
Seniors	29.00	53.00	78.00	105.00	125.00
Teachers	34.25	60.28	78.09	95.90	121.93
Mean	44.34	65.20	78.05	96.19	106.47
Rank (Value)	1	2	3	4	5

10. Certified elementary education teachers with no training in Special Education generally have the training and competency to teach EMH children if provided with supportive services; i.e., consultants, resource rooms, etc. (Competency)

	SA	A	U	D	SD
Administrators	102.96	104.00	78.00	63.44	41.60
Faculty	101.48	115.64	77.88	56.64	37.76
Seniors	48.00	76.00	78.00	102.00	86.00
Teachers	57.54	69.87	78.09	94.53	90.42
Mean	77.49	91.38	77.99	79.15	63.94
Rank (Value)	2	5	3	4	1

11. Certified elementary education teachers with no training in Special Education generally have the training and competency to teach EMH children if special considerations are exercised. (Competency)

	SA	A	U	D	SD
Administrators	84.75	89.27	77.97	79.10	58.76
Faculty	63.72	82.60	77.88	87.32	77.88
Seniors	42.64	72.80	78.00	104.00	92.56
Teachers	43.84	63.02	78.09	101.38	104.12
Mean	43.74	76.92	77.98	92.95	83.33
Rank (Value)	1	2	3	5	4

12. Teachers of EMH children, in special or regular classrooms, should be released from extra-classroom duties; i.e., lunchroom and playground supervision, after-school activities, etc. (Concessions)

	SA	A	U	D	SD
Administrators	58.24	69.68	78.00	89.44	94.64
Faculty	56.64	63.72	77.88	96.76	94.40
Seniors	50.00	67.00	78.00	99.00	96.00
Teachers	80.83	79.46	78.09	79.46	72.61
Mean	61.43	69.96	77.99	91.16	89.41
Rank (Value)	1	2	3	5	4

13. Teachers of EMH children should be compensated above the regular salary schedule. (Concessions)

	SA	A	U	D	SD
Administrators	70.39	79.06	77.98	82.31	80.14
Faculty	69.44	73.78	78.12	88.97	80.29
Seniors	90.48	96.72	78.00	72.80	52.00
Teachers	76.72	86.31	78.09	76.72	72.61
Mean	76.76	83.97	78.05	80.20	71.26
Rank (Value)	2	5	3	4	1

14. Teachers of EMH children need released school time for planning, home visits, record-keeping, etc. (Concessions)

	SA	A	U	D	SD
Administrators	76.89	97.47	77.98	77.98	59.56
Faculty	106.33	108.50	78.12	60.76	36.89
Seniors	63.00	96.00	78.00	84.00	69.00
Teachers	115.08	108.23	78.09	56.17	32.88
Mean	90.32	102.55	78.05	69.73	49.58
Rank (Value)	4	5	3	2	1

15. The EMH child can function socially at his age (or grade) level if he receives appropriate help in school. (Ability)

	SA	A	U	D	SD
Administrators	94.22	96.39	77.98	70.39	50.90
Faculty	104.16	110.67	78.12	62.93	34.72
Seniors	82.00	99.00	78.00	80.00	51.00
Teachers	97.27	98.64	78.09	65.76	50.69
Mean	94.41	101.17	78.05	69.77	46.83
Rank (Value)	4	5	3	2	1

16. The EMH child can lead a normal adult life--function adequately personally, socially and vocationally--if he receives an appropriate education. (Ability)

	SA	A	U	D	SD
Administrators	108.30	105.05	77.98	62.81	35.74
Faculty	104.16	108.50	78.12	71.61	28.21
Seniors	101.00	103.00	78.00	69.00	39.00
Teachers	108.23	100.01	78.09	60.28	36.99
Mean	105.42	104.14	78.05	65.92	34.98
Rank (Value)	5	4	3	2	1

17. Special materials are needed for most EMH children. (Competency)

	SA	A	U	D	SD
Administrators	116.48	117.52	78.00	52.00	26.00
Faculty	106.33	101.99	78.12	65.10	39.06
Seniors	103.00	106.00	78.00	66.00	37.00
Teachers	128.78	105.49	78.09	52.06	26.03
Mean	113.65	107.75	78.05	58.79	32.02
Rank (Value)	5	4	3	2	1

18. Special methods are needed for most EMH children. (Competency)

	SA	A	U	D	SD
Administrators	100.72	110.47	77.98	61.73	38.99
Faculty	120.36	113.28	77.88	51.92	25.96
Seniors	106.00	100.00	78.00	64.00	42.00
Teachers	126.04	108.23	78.09	52.06	26.03
Mean	113.28	107.99	77.99	57.43	33.24
Rank (Value)	5	4	3	2	1

19. More dollars-per-child should be allocated for educational materials for the EMH children than for children of normal intelligence. (Concessions)

	SA	A	U	D	SD
Administrators	97.47	97.47	77.98	64.98	51.98
Faculty	96.76	94.40	77.88	70.80	49.56
Seniors	72.80	93.60	78.00	86.32	59.28
Teachers	117.82	100.01	78.09	57.54	36.99
Mean	96.21	96.37	77.99	69.91	49.45
Rank (Value)	4	5	3	2	1

20. Educational programs for EMH children should be extended to 12 months. (Concessions)

	SA	A	U	D	SD
Administrators	59.56	70.39	77.98	90.97	86.64
Faculty	99.12	113.28	77.88	75.52	47.20
Seniors	67.00	83.00	78.00	90.00	72.00
Teachers	80.83	89.05	78.09	78.09	64.39
Mean	76.63	88.93	77.99	83.64	88.47
Rank (Value)	1	5	2	3	4