A COMPARISON OF THE SOCIAL ACCEPTANCE OF
LEARNING DISABILITY AND NORMAL CHILDREN
FOR THREE TEACHING MODELS

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The problem of this study concerned the sociometric status of learning disability (LD) and normal children in the classroom. More specifically, the degree of cross choosing between LD and normal children was compared for three different teaching models.

The 450 fourth grade subjects of the study constituted the entire population of Project Child, a state-funded program for the diagnosis and treatment of language learning disabilities. Each of the 18 experimental classes was composed of 13 normal children and 12 children with learning disabilities. Six of the 18 classes were taught by the Alphabetic, Phonetic, Structural, Linguistic Model (APSL), which is a highly structured, uniformly applied program. Six other classes were taught using the Programmed Instruction Model (PI). This model is a structured, linearly sequenced, individually applied program. The remaining six were taught using the Individually Prescribed Program Model (IPP), which is an unstructured, non-linear, individualized method of instruction. A sociometric questionnaire was individually administered to each of the 450 children.

Acceptance choices and rejection choices were requested for both a work situation and a play situation.

The hypotheses of the study were based upon the findings in related literature. Hypothesis 1 was that on the acceptance questions, LD children were expected to choose normals significantly more often than normals choose LD children, regardless of teaching method. The hypothesis was found to be supported. Z scores of the differences in sample proportions for the three teaching methods combined, and for each separately, were statistically significant at the .01 level.

Hypothesis 2 was that on the rejection questions, normal children were expected to reject LD children significantly more often than LD children reject normals, regardless of teaching method. Z scores for the three teaching methods combined, were statistically significant at the .01 level. However, when each method was analyzed separately, the z scores for the APSL and PI methods were not statistically significant. The IPP method was the only method in which LD children were rejected by normals significantly more often than normals were rejected by LD children.

Hypothesis 3 was that within-sex group choices were expected to be significantly greater than between sex group choices. The hypothesis was supported for the acceptance questions, but not for the rejection questions. The z score for the acceptance questions was statistically significant at the .01 level. The z score for the rejection questions was also statistically significant, but in the opposite direction than expected.

Due to the definite sex preference found, cross classification choices (LD choices of normals and normal choices of LD children) were analyzed separately for males and females. Results for females indicated that in both work and play situations, LD children were significantly less accepted and significantly more rejected than normals. The results for males indicated that males were more accepting and less rejecting of LD children for play situations than for work situations.

Hypothesis 4 was that within racial group choices were expected to be significantly greater than between racial group choices. The hypothesis could not be tested because there were too few minority children in each class, which forced them to choose outside of their racial group.

The major conclusion of the study was that the sociometric status of normal children was higher than the sociometric status of LD children in the same classroom. Secondly, the individualized academic programs did not appear to enhance the social acceptance of LD children. An additional conclusion was that males were more accepting of LD children than were females. The fourth conclusion was that the rejection of LD children may have been due to both academic and behavioral factors.

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THESIS

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CHAPTER I

INTRODUCTION

The role of the peer group in the social development of a child is an important one. An opportunity for the child to experience both positive and negative modes of interaction with his peers is provided in the classroom setting. The nature of the relationships which develop will affect how a child perceives himself and his environment. Positive, secure relationships will likely foster the development of skills necessary for healthy social adjustment as defined by the culture. Secure relationships result from being accepted by others. Peer acceptance, then, is an indicator of social adjustment.

Sociometric techniques provide a means of assessing the extent of a child's acceptance within his peer group. Since a school age child spends most of his day in the classroom, the teacher is in a strategic position to assist in the socialization process. Therefore, the most extensive use of sociometric techniques has been with classroom groups. Sociometric results present a picture of group social patterns which may be used to identify isolated or rejected individuals. The teacher may then take necessary steps to define the problem and design a plan for remediation.

Of particular interest to researchers has been the peer acceptance of children who deviate from the accepted norms of a classroom society, such as the mentally handicapped child. Research investigating the peer acceptance of children with learning disabilities has been virtually non-existent. A definition of learning disabilities has been formulated by the National Advisory Committee on Handicapped Children in their annual report to Congress in 1968.

> Children with learning disabilities exhibit a disorder in one or more of the basic psychological processes involved in understanding or using spoken or written languages. These may be manifested in disorders of listening, thinking, reading, writing, spelling, or arithmetic. They include conditions which have been referred to as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia, developmental aphasia, etc. They do not include learning problems which are due primarily to visual, hearing, or motor handicaps, to mental retardation, emotional disturbance, and to environmental disadvantage (p. 4).

Researchers at Project Child, a state funded program for the study of the nature and treatment of language disabilities, have defined three major educational objectives for children with learning disabilities. The first objective, appraisal, deals with the discovery of efficient methods of early identification of language handicapped children. The second objective, instruction, refers to the development of intervention techniques for effective remediation of language handicaps. Evaluation of instructional models is also considered as part of this objective.

The third objective, staff development, is concerned with the development of a model program for the preparation of teachers for children with language disabilities.

The present study derives from the instructional componant of Project Child. The experimental classes of the different instructional models include both learning disability children and normal children. Peer acceptance of learning disability children is an additional factor to consider in assessing the effectiveness of teaching models. A child's learning problems may be compounded by factors within the classroom, i.e., lack of peer acceptance or peer rejection. The possibility that some teaching methods foster a more positive social environment should be considered. The present study attempts to investigate the social acceptance of learning disability children within different teaching methods.

Statement of the Problem

The problem of this study concerns the sociometric status of learning disability and normal children in the classroom. More specifically, the degree of cross choosing between learning disability and normal children will be compared for three different teaching models.

The purposes served by this investigation are the extension of sociometric research to populations of learning disability and normal children, and provision of data which may aid investigators in the evaluation of teaching model effectiveness.

Related Studies

The discussion of research related to this study includes empirical research which considers the relationship of peer acceptance to sex preference, racial status, intelligence, academic achievement, special abilities, and an educational model.

Gronlund (1959), in a summary of research through 1958, concluded that,

> Children who are highly chosen by their peers on a sociometric test tend to be more intelligent, to have higher scholastic achievement, to be younger in age, to have greater social and athletic skill, to participate more frequently in sports and social activities, to have a more pleasant physical appearance, to have more social and heterosexual interests, and to have more need satisfying characteristics than children who receive fewer or no sociometric choices than their peers (p. 221).

Gronlund also noted a general tendency in sociometric patterns for children to choose others whose abilities, skills, and interests are similar to or slightly higher than their own. This finding was supported by the studies of Smith (1944), Barbe (1954), and Miller (1956).

Sex Preference and Racial Choice

A fairly common phenomenon in sociometric testing at the elementary level is sex cleavage, preference for one's sex. Sociometric results from different schools have shown considerable variation in the amount of cleavage between the sexes (Gronlund, 1959).

Criswell (1938) found the results of her sociometric study of racial cleavage to be confounded by sex cleavage. Preference for one's own sex was present in kindergarten and increased to almost complete seperation of the sexes by the fourth grade.

Bonney (1954), in a comprehensive study of 2,370 children in grades three through eight, found differences in intersex choosing at various grade levels. Results showed a greater tendency for boys to choose girls in grades three and four, but the difference found was too small to allow a confident basis for generalizing to similar populations. At the fifth grade level, an equal tendency was shown for boys and girls to choose members of the opposite sex. A different trend was found at the seventh grade level; girls chose boys more often than boys chose girls, but not significantly so. At the eighth grade level, an equal tendency for both sexes to choose members of the opposite sex was found. A comparison of intersex and intrasex choosing showed the extent of accepting attitudes within each sex group to be approximately twice as great as between sex groups. An educational implication arising from this study was that both intersex and intrasex attitudes appeared to be a product of particular group situations and social learning rather than age or maturational levels.

In two studies of the social position of educable mentally retarded children in regular grades (Baldwin, 1958, and Van Osdol, 1971), sex was not found to significantly affect the sociometric status of these children.

Reese (1962) also found that children in grades five through eight gave higher sociometric ratings to members of their own sex, but boys gave higher ratings to girls than girls gave to boys.

When racial segragation has existed within a community, sociometric choice patterns have usually reflected a distinct racial cleavage. However, where racial segregation has existed for some time, children's sociometric choices freely cross race lines (Gronlund, 1959).

Criswell (1939) investigated the choice patterns of racially mixed (Negro-White) classrooms in kindergarten through eighth grade. Racial group segregation was found to increase with age, with the greatest degree of segregation found at the fifth grade level. Sex preference and racial composition of the classes were found to be influencing factors in friendship selection. A given group of boys or girls nearly always preferred classmates of the same sex, even though of a different race, to classmates of the same race but of different sex. In the girls' groups, increase in minority group size caused an increased rejection by the majority, while the opposite held true for boys.

Jansen and Gallagher (1966) also found sociometric choice patterns to be affected by racial proportions and sex preference in four, racially mixed, elementary school classes for culturally disadvantaged, talented children. Though substantial cross race choosing was demonstrated in all four classrooms, the patterns differed. In two of the classes, the majority race showed significant self-preference, whereas, a considerably higher degree of interracial choosing was found in the other classes. Boys made more interracial choices than did girls.

Peer acceptance-rejection of Spanish children in mixed Anglo and Spanish classes was studied by Sells, Ross, Cox, and Mayer (1967). Two paired samples of 640 children were obtained by pairing a Spanish child with a randomly selected Anglo classmate of the same sex and socioeconomic background, which was defined in terms of large and small communities. Spanish children were found to be significantly less accepted than Anglo children in both large and small communities and significantly more rejected than the Anglo children in the large communities. The differences between the acceptance of Anglo and Spanish children were three times greater than the differences in rejection. This finding indicated that though the Spanish children were not accepted, neither were they strongly rejected. Contrary to findings of Criswell

(1939) and Jansen and Gallagher (1966), no consistent association between peer status and the number of children in the class was found. Spanish boys and girls did not vote as cliques in making peer selections.

The studies just reviewed indicate a tendency for elementary age children to choose others of the same sex on a sociometric measure. However, whether or not such choosing significantly affects the resulting sociometric pattern may depend upon the type of population and other variables within the classroom structure. The same appears to be true of racial patterns. Studies by Criswell, and by Jansen and Gallagher have found that interracial choice patterns are affected by racial composition. This finding is not confirmed by Sells et al., however, these findings are not necessarily contradictory. First of all, the designs of the studies differ. The first two studies have investigated cross choice patterns of Negro and White children. The third has investigated one way acceptance of Spanish children by their Anglo peers. Secondly, comparing the results of a Negro-White population to the results of a Spanish-Anglo population may be questionable.

Intelligence

Studies of the relationship between intelligence and sociometric choice have consistently shown low positive correlations (Bonney, 1946; Grossman and Wrighter, 1948; Davis, 1957; Sells and Roff, 1967; and Willie, 1971).

Sells and Roff (1967) were the only researchers who partialled out the variance attributable to social class in their correlations. Their results indicate a low positive correlation between intelligence and peer acceptance at each of the socioeconomic levels studied.

Grossman and Wrighter (1948) obtained a low positive correlation between selection-rejection scores and intelligence quotients on the assumption of a linear relationship. A further breakdown of the sample into three categories of intelligence, below normal (60-84), normal and superior (85-129), and superior (130-above), indicated an exponential relationship. Intelligence made a difference in the selection-rejection scores of individuals of below normal intelligence, but did not materially affect the selection-rejection scores of individuals of normal intelligence and above. The investigators concluded that selection demands conform to a standard of normal intelligence.

A later study by Miller (1956) was not in agreement with the findings of Grossman and Wrighter. Statistically significant differences were found between the peer acceptance scores of mentally superior (120-140), mentally typical (90-110), and mentally retarded children (60-80). The superior were most wanted as friends, the typical were the next most wanted, then the retarded, which indicates a linear relationship. No group was found to be rejected. Positive, neutral, and negative choices were available for each individual. Thirty-three of the 40 retarded subjects were placed in the neutral category by their classmates, which indicated indifference to having them as friends.

Similar findings were indicated by Lapp (1957) in a study of the social acceptance of special class children who spent part of their day in regular classes. Acceptance scores of the slow learners were significantly lower than was expected by chance, but the rejection scores of the special class children did not differ from chance expectancy.

However, Johnson (1950) studied the sociometric status of 39 mentally handicapped children in 25 regular classes and found that the mentally handicapped were significantly more rejected than typical children. The mentally handicapped group was further divided into a lower group (below 60 IQ) and upper group (60-69 IQ). The typical group was divided into a borderline group (70-89 IQ) and a group of those children not included in the other three divisions. Acceptance scores were found to steadily increase from group to group as the mean IQ for the group increased. The rejection scores showed an inverse relationship. Rejection scores decreased as the mean IQ for the group increased. Johnson was also interested in why the mentally handicapped children were rejected. After answering the questions on the sociometric measure, each child was asked to give reasons why he accepted or rejected a child. Reasons for rejection of mentally handicapped children were predominantly due to their aggressive and unacceptable behavior. Out of 288 reasons for rejection, only 34 referred to physical differences or poor academic ability.

Baldwin (1958) also found the degree of social acceptance of mentally retarded children in regular grades to be significantly lower than the acceptance of non-mentally retarded children. However, the degree of social acceptance of mentally retarded children was not found to increase with an increase in level of mental retardation.

In all of these studies, statistically significant correlations between intelligence and sociometric status have been found. However, investigators disagree as to the point at which intelligence ceases to make a difference in sociometric patterns. Investigations have consistently shown that the social acceptance of mentally handicapped children is significantly less than the social acceptance of normal children. In some studies, mentally handicapped children are treated with indifference while in others they are actively rejected by their normal peers. The implications of these findings appear to be in favor of special classes for mentally handicapped children, yet it cannot be assumed that a child will be accepted by his peers in a special class. The compensatory behaviors of a mentally handicapped child may be unacceptable to both his normal and mentally handicapped peers.

Academic Achievement and Special Abilities

Academic achievement has also been shown to be related to peer acceptance. Bonney (1946) studied this relationship by correlating scores on the Stanford Achievement Test with a sociometric measure for a population of children in grades three through six. Results indicated a greater closeness in achievement for mutual choice pairs than for unreciprocated pairs. However, correlations were low, with little or no statistical significance. Bonney concluded that "measures of academic achievement cut too small a segment into the personality for the results to bear much relationship to the complex behavior variables determining interpersonal attractions (p. 30)."

Contradictory results were found by Willie (1971). Achievement percentile levels were correlated with scores on a sociometric questionnaire for 93 white children in grades three through six. Correlations were found to be statistically significant at the .05 level of confidence.

Reading has also been investigated as a measure of academic achievement. Correlations of reading achievement with sociometric scores have been statistically significant. Accelerated readers have been generally found to receive higher ratings than retarded readers (Grossman and Wrighter, 1948; Davis, 1957; Porterfield and Schlichting, 1964).

The relationship of special abilities to sociometric status has also been investigated. Rosenthal (1957) studied the relationship between certain aspects of language and the sociometric scores of second grade children. The language of a low status group and a high status group was evaluated in terms of structure, method, and communicative value. Results indicated a significant difference between the language of the two groups. The language of high status children was found to be more active, more varied in the types of words used, and to have greater communicative value.

Hudgins, Smith, and Johnson (1962) found that friendship status was related to arithmetic ability in an elementary school population.

The studies just reviewed have all shown positive correlations between academic achievement and peer acceptance, though the relationship has not always been statistically significant. Reading, language ability, and arithmetic skills have also been found to be related to sociometric choice. These special skills could be considered academic norms in the classroom society.

An Educational Model

The question of the most effective educational model for teaching educable mentally retarded (EMR) children remains unresolved. One criterion for evaluation of these models is the social acceptability of EMR children to their normal peers. No single model has been found to be superior for fostering positive social attitudes and relations between EMR children and their regular classroom peers. (Goodman, Gottlieb, and Harrison, 1972)

In a recent study, Goodman et al., evaluated the non-graded elementary school model. All children, EMR and normal, were integrated into a variety of flexible groupings depending upon an individual's competency in different subject areas. An individualized program was prescribed for each child. Each child also had access to individual remedial help. Presumably, only the teachers were aware of the identity of the EMR children. The investigators hypothesized that this non-graded, individualized program would enhance the social acceptability of the EMR children since there was not a disreputable effect of being in a special class for part of the day. A sociometric instrument was administered to 40 randomly selected non-EMR students. Results showed that EMR children were chosen as friends significantly less often than non-EMR children. EMR children were also rejected significantly more often than non-EMR children.

Though efforts have been made to integrate EMR children, they remain socially unacceptable to their peers. The rejection of EMR children may be due to behavioral problems rather than academic limitations.

The review of literature related to the present study has shown the following trends in sociometric patterns.

1. Children tend to choose others whose abilities, skills, and interests are similar to or slightly higher than their own.

2. Elementary age children tend to choose others of the same sex on a sociometric measure.

3. Racial choice appears to largely depend upon the racial composition of the class.

4. Low positive correlations between intelligence and sociometric choices have been found.

5. Low positive correlations have been found between sociometric choices and academic achievement, reading achievement, language skills, and arithmetic skills.

6. Social acceptance of mentally handicapped children has been found to be significantly less than the social acceptance of their normal classroom peers.

Hypotheses

The preceding review has provided a basis for the hypotheses of the present study.

Hypothesis 1-- On the acceptance questions, learning disability children are expected to choose normal children significantly more often than normals choose children with learning disabilities, regardless of teaching method.

Hypothesis 2-- On the rejection questions, normal children are expected to reject learning disability children significantly more often than learning disability children reject normals, regardless of teaching method.

Hypothesis 3-- Within sex group choices are expected to be significantly greater than between sex group choices.

Hypothesis 4-- Within racial group choices are expected to be significantly greater than between racial group choices.

CHAPTER II

METHODS AND PROCEDURES

Subjects

The 450 fourth grade subjects of the present study constituted the entire population of Project Child, Region 10, Richardson, Texas. Project Child is a state funded program for the diagnosis and treatment of language handicapped children. The 18 experimental classes were from nine Dallas and nine Irving elementary schools. Each class was composed of 13 normal children and 12 children with language disabilities. Three of the nine Dallas classes and three of the nine Irving classes were taught using the Alphabetic, Phonetic, Structural, Linguistic Method (APSL). This approach was a highly structured, uniformly applied, linearly sequenced instructional program. The starting point in the program was the same for each child. Six other classes in Dallas and Irving were taught using the Programmed Instruction Method (PI). This program was a structured, linearly sequenced, individually applied method. Each child worked through the programs at his own rate and at his own level. The remaining six classes in Dallas and Irving were taught using the Individually Prescribed Program Method (IPP). This program was a non-linear, unstructured, individualized method of instruction. Individual instructional strategies were designed to ameliorate a child's deficits and to utilize his strengths to attain appropriate educational progress.

The children were selected by scores on the Myklebust Pupil Rating Scale and Syllabication Test A. These tests were selected as the most effective instruments for identification of children with learning disabilities in a previous pilot study at the Research and Evaluation Center for Learning, Dallas, Texas. The cut off score for classification as language handicapped on the Myklebust was 70 and below. On the Syllabication Test, the cut off score for classification as language handicapped was 16 and below. Information regarding selection criterion is reported in Table 1.

Table 1

Selection Criteria for LD and Normal Children

Instrument	Range	x LD	s LD	x N	x N	Cut off
Myklebust	25-125	60	10	74	12	70
Syllabication Test A	0-20	13.5	2.5	17	2.3	16

Instrument

The sociometric instrument used in the present study was designed to evaluate two criteria of group structure, personal and social. Personal criterion represent choices made on a personal basis, e.g., a play companion. Social criterion represent social choices that are influenced by the contribution an individual can make to a goal directed activity, e.g., a work companion. Individuals were allowed to choose each other for the same activity. Though choices on each question were limited to five, a child was allowed to choose the same individual for more than one question. Two of the questions requested positive choices and the other two requested negative responses. This allowed both acceptance and active rejection to be determined.

Procedure

The sociometric instrument was individually administered to each child by his classroom teacher. Preceding the administration, the teachers had been briefed as to the appropriate procedures for administration. In addition, a packet had been prepared for each class which included written instructions to the teacher, instructions to the child, and questionnaires for each child in the class. All of the teachers were required to administer the questionnaires within the same week.

CHAPTER III

RESULTS AND DISCUSSION

Results

Hypotheses 1 and 2 were tested by comparing the number of learning disability (LD) choices given to normal children to the number of normal choices given to LD children for the four sociometric questions. Question 1 refers to choices which indicated who a child would most like to work with. Question 2 refers to choices which indicated who a child would most like to play with. Question 3 refers to choices which indicated who a child would least like to work with. Question 4 refers to choices which indicated who a child would least like to play with.

Sample proportions were obtained for the learning disability group by dividing the total number of LD choices into the number of LD choices given to normals. Sample proportions were obtained for the normal group by dividing the total number of normal choices into the number of normal choices given to LD children. The z score was used to test for significance between observed differences in sample proportions. Hypothesis 1 was that on the acceptance questions, LD children were expected to choose normals significantly more often than normals choose LD children, regardless of teaching method. The results of cross classification choices for questions 1 and 2 are recorded in Table 2.

Table 2

Cross Classification Choices for Questions 1 and 2

Teaching Method	Question	Choices	Sample Proportions	z
ALL	1	LD-N N-LD	.6424 .3413	12.16*
ALL	2	LD-N N-LD	.5402 .4422	4.90*
APSL	1+2	LD-N N-LD	.6333 .4422	8.27*
PI	1+2	LD-N N-LD	.5739 .4282	5.52*
IPP	1+2	LD-N N-LD	.5699 .3753	7.37*

*p<.01

N-LD - normals choosing learning disability children
LD-N - learning disability children choosing normals

LD children chose normal children to work with and to play with, significantly more often than normals chose LD children. The finding supported Hypothesis 1. Further analysis of the data by teaching methods indicated that in all three methods, LD children accepted normals significantly more often than normals accepted LD children.

Hypothesis 2 was that on the rejection questions, normal children were expected to reject LD children significantly more often than learning disability children reject normals, regardless of teaching method. The results of cross classification choices for questions 3 and 4 are recorded in Table 3.

Table 3

Cross Classification Choices for Questions 3 and 4

Teaching Method	Question	Choices	Sample Proportions	z
ALL	3	LD-N N-LD	.4756 .6223	7.34*
ALL	4	LD-N N-LD	.4938 .5891	4.77*
APSL	3+4	LD-N N-LD	.5106 .5568	1.75
PI	3+4	LD-H N-LD	.5543 .5911	1.39
IPP	3+4	LD-N N-LD	.3945 .6735	10.57*

*$p<.01$

LD-N - learning disability children choosing normals
N-LD - normals choosing learning disability children

LD Children were rejected as work group members and play group members by normal children significantly more often than normal children were rejected by LD children. The results supported Hypothesis 2. Further analysis of the data by teaching methods indicated that LD children were rejected by normals significantly more often than normals were rejected by LD children in the Individually Prescribed

Program Method. The differences in rejection of LD children by normals and rejection of normals by LD children were not significant for the Programmed Instruction Method and the Alphabetic, Phonetic, Structural, Linguistic Method.

Hypothesis 3 was that within sex group choices were expected to be significantly greater than between sex group choices. The hypothesis was tested by comparing the total number of within sex group choices to the total number of between sex group choices for the acceptance and rejection questions. Sample proportions were obtained for the within sex group choices by dividing the total number of choices into the number of within sex group choices. Sample proportions for the between sex group choices were obtained by dividing the total number of choices into the number of within sex group choices. The z score was used to test for significance between observed differences in the sample proportions. The results of cross sex choices are recorded in Table 4.

Table 4

Cross Sex Choices for Acceptance and Rejection Questions

Teaching Method	Question	Choices	Sample Proportions	z
ALL	1+2	within sex between sex	.8618 .1381	47.82*
ALL	3+4	within sex between sex	.3867 .6132	14.97*

*p<.01

On the acceptance questions, within sex choices were significantly greater than between sex choices. However, on the rejection questions, between sex choices were significantly greater than within sex choices. Hypothesis 3 is supported for the acceptance questions, though not for the rejection questions.

Since significant sex preferences were found, the cross classification choices were further analyzed for males and females seperately. Sample proportions and z scores for cross classification choices of males are recorded in Table 5. Female cross classification choices are recorded in Table 6.

Table 5

Cross Classification Choices for Males on All Questions

Teaching Method	Question	Choices	Sample Proportions	z
ALL	1	N-LD LD-N	.455 .593	4.53*
ALL	2	N-LD LD-N	.508 .494	0.47
ALL	3	N-LD LD-N	.584 .503	2.70*
ALL	4	N-LD LD-N	.531 .518	0.43

*p<.01

N-LD - normals choosing learning disability children
LD-N - learning disability children choosing normals

On Question 1, LD children chose normals to work with significantly more often than normals chose LD children. However, on Question 2, there was not a significant difference between LD choices given to normals and normal choices given to LD children. On Question 3, LD children were rejected by normals significantly more often than normals were rejected by LD children. The difference between the LD choices given to normals and the normal choices given to LD children was not significant for Question 4.

Table 6

Cross Classification Choices for Females on All Questions

Teaching Method	Question	Choices	Sample Proportions	z
ALL	1	N-LD LD-N	.302 .711	12.95*
ALL	2	N-LD LD-N	.389 .604	7.17*
ALL	3	N-LD LD-N	.655 .438	6.80*
ALL	4	N-LD LD-N	.637 .460	5.90*

*p<.01

N-LD - normals choosing learning disability children
LD-N - learning disability children choosing normals

LD children chose normals significantly more often than normals chose LD children on questions 1 and 2. LD children were rejected by normals significantly more often than normals were rejected by LD children on questions 3 and 4.

Hypothesis 4 was that within racial group choices were expected to be significantly greater than between racial group choices. The hypothesis could not be tested because there were too few minority group children in each class, which forced minority group children to choose outside of their racial group.

Discussion

The hypotheses concerning cross classification choices of learning disability and normal children were the key hypotheses of the study. LD children were accepted significantly less often and rejected significantly more often than normal children. The findings were consistent with the trend in sociometric patterns found by Gronlund (1959). Children chose others whose abilities are similar to or slightly higher than their own. Due to the language handicaps of LD children, they are academically inferior to their normal classroom peers. Since the classroom culture places significant value upon academic achievement, it is often a criterion for acceptance or rejection in the classroom setting. Behavioral factors may also have been involved in the acceptance or rejection of the LD children. Johnson (1950) found that reasons for rejection of mentally handicapped children were due to their aggressive and unacceptable behavior. LD children may have developed compensating behaviors for their previous academic failures. If the behaviors were disruptive and unacceptable to normal children, these behaviors may have been additional criteria for the rejection of LD children.

Further analysis of the data by teaching methods indicated that in all three methods, LD children accepted normals significantly more often than normals accepted LD children. The results were consistent with the findings of Goodman et al. (1972). The investigators found that a non-graded, individualized educational model did not enhance the social acceptability of educable mentally retarded children. EMR children were accepted significantly less often than their normal classroom peers. In the present study, both the Individually Prescribed Program Model (IPP) and the Programmed Instruction Model (PI) are individualized methods of instruction. The Alphabetic, Phonetic, Structural, Linguistic Model (APSL) is a uniformly applied method of instruction, much like the traditional classroom model. The individualized methods did not enhance the social acceptance of LD children. LD children were less accepted than normals in all three methods. The IPP method was the only teaching method in which LD children were rejected by normals significantly more often than normals were rejected by LD children. Though LD children were not as accepted as normals in the APSL and PI methods, neither were they more rejected. The IPP method is more unstructured and goal oriented than either the APSL or PI methods. There is also greater opportunity for interaction among the children. Rewards for each child are contingent upon the cooperative, productive behaviors of the group. If one child disrupts the productive behavior of another, both suffer the consequences. Learning disability children may have developed attention getting behaviors to compensate for failure to achieve academically. Such behaviors were likely the cause of rejection in this type of classroom setting.

The hypotheses concerning sex group choices and racial group choices were included to account for the possible affect of these factors on the resulting sociometric choice patterns. Within sex group choices were found to be significantly greater than between sex group choices on the acceptance questions. However, on the rejection questions, the opposite choice pattern was found. Males and females rejected members of the opposite sex significantly more often than members of the same sex. Numerous studies in the literature showed this trend to be fairly common for elementary age children.

Since the sex preferences found could have affected the classification choice patterns, cross classification choices were analyzed seperately for males and females. The results for females indicated that LD children were significantly less accepted and significantly more rejected than normals. The findings for females supported the trend found for cross classification choices of the entire population. The results for males showed LD children to be significantly less accepted on question 1, though not on question 2. LD children were also significantly more rejected on question 3, though not on question 4. Males were more accepting and less rejecting of LD children for a play situation than for a work situation. Though academic proficiency appeared to be a factor in the selection of work companions, it did not appear to affect play companion choices. However, females discriminated against LD children in both work and play situations. Females in our culture are generally more academically oriented than males, which may have affected both work and play choices.

Racial group choices could not have affected the cross classification choice patterns. In most cases, there were only one or two minority group members in each class. Since each child was asked to give five choices for each question, the minority group children were forced to choose outside of their racial group.

CHAPTER IV

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The major conclusion based upon the general findings in this study is that the sociometric status of normal children is higher than the sociometric status of learning disability children in the same classroom.

A second conclusion is that individualized academic programs do not appear to enhance the social acceptance of learning disability children. This conclusion is based upon the finding that in both the uniformly applied and individually applied programs, learning disability children were accepted significantly less often than normal children.

Another conclusion is that males are more accepting of learning disability children than are females. This conclusion is based upon the finding that though learning disability children were less accepted and more rejected by males for work situations, they were not less accepted and more rejected than normals for play situations. However, learning disability children were less accepted and more rejected by females for both work and play situations.

A fourth conclusion is that the rejection of learning disability children may be due to both academic and behavioral factors. This conclusion is based upon the finding that only in the IPP method were learning disability children more rejected than normals. This teaching method is more unstructured and goal oriented than either the APSL or PI methods. Disruptive behavior of one individual may cause others to forfeit a reward. Therefore, choices of children in this type of classroom are more likely to be affected by an individual's behavior.

Recommendations

1. An investigation of the effects of teachers' interaction with learning disability and normal children on sociometric patterns would be a valuable follow-up to the present study.

2. There is a dearth of research concerning the social acceptance of learning disability children by their normal peers. Further research in this area would be beneficial in order to evaluate the efficacy of integrated LD-Normal classrooms.

3. The development of teaching models should not only consider the remediation of specific disabilities and academic progress, but also the development of skills necessary for healthy social adjustment.

4. Teachers are in a strategic position to make use of sociometric techniques as an aid in evaluating a child's social acceptance by his peers. Therefore, teachers should

be educated in the administration, interpretation, and usage of sociometric data.

APPENDIX A

SOCIOMETRIC INSTRUCTIONS

We choose different people for different activities. This is an activity to find out who you would choose in particular situations. You may choose anyone in the room you wish, including those pupils who are absent. Your choice will not be seen by any of your classmates. Tell me the name of each person you choose.

You may choose 5 children for each question.

REMEMBER:

1. You must choose 5 children from your classroom for each question.
2. You may choose the same person for more than one question.
3. Your choices will not be seen by your classmates.

APPENDIX B

SOCIOMETRIC QUESTIONNAIRE

Question 1: Which students in the class would you most like to work with on a work project--one that requires that you prepare a report to be given in class?

1.
2.
3.
4.
5.

Question 2: Which students in the class would you most like to be with in a play group--one in which you play games and have fun?

1.
2.
3.
4.
5.

Question 3: Which students in the class would you least like to work with on a work project--one that requires that you prepare a report to be given in class?

1.
2.
3.
4.
5.

Question 4: Which students would you least like to be with in a play group--one in which you play games and have fun?

1.
2.
3.
4.
5.

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