INCREASING THE SOCIAL INTERACTION IN A
FIFTH-GRADE CLASS: A SOCIOMETRIC STUDY

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INCREASING THE SOCIAL INTERACTION IN A FIFTH-GRADE CLASS: A SOCIOMETRIC STUDY

THESIS

Presented to the Graduate Council of the North Texas State College in Partial Fulfillment of the Requirements

For the Degree of

MASTER OF SCIENCE

By

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Denton, Texas
May, 1961
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CHAPTER I

INTRODUCTION

Importance of the Problem

A child's behavior in a group is largely determined by the position or role which he holds in that group. Children who are isolated or rejected by the group generally have withdrawal tendencies or other socially ineffective behavior patterns that retard their social adjustment (2). In a classroom situation, the deviate behavior may disrupt the rest of the class as well as interfering with the academic work of the pupil exhibiting the behavior. However, there are cases of isolates and rejects with no academic problems. In fact, they may be intellectually superior and have a great deal to offer; but, because of their social inadequacies, their contributions will not be accepted by the rest of the group.

Psychologists generally agree that personality is a product of interpersonal relationships. For the preschool child, this refers mainly to the types of relationships children have with their parents. However, from the time a child enters school until he reaches adulthood, a large share of his interpersonal relationships are with his peers. Other things being equal, the types of relationships a child develops with his peers will determine to a large extend how he views the world about him and how he views himself.
If he has secure and satisfying relationships with his age mates, he will tend to view the world as a warm and friendly place and will develop feelings of confidence in himself and others. He will tend to seek further social contacts with his peers, and he will find it easier to make heterosexual adjustments when adolescence is reached. The security arising from being accepted by others with social experience obtained with age mates will enable him to develop the social skills and habits necessary for establishing and maintaining effective interpersonal relationships in adulthood (4, p. 232).

Although most students of behavior agree on the importance of interpersonal relations, Erich Fromm most strongly emphasizes this point.

Man has to be related to things and to people in order to live. The man who had a recognition of his true self will have a productive orientation to living. The person who has enjoyed good early relationships will have respect and love for himself, will be able to cherish and love others, and will be able to use his capacity in fruitful work. This is the productive way of living (1, p. 1428).

The basis of most religions and philosophies is, in some form, man relating to man. However, these orientations usually assume if one knows the moral "right and wrong" of his relationships he will find them satisfactory. This is not always the case since moral instruction shows one what not to do and not what to do. This type of instruction might result in "doing nothing" or withdrawal. There seem to be definite social skills that must be learned in order to relate successfully to other persons. The influence of the classroom and the school on personal and social development of children has now been sufficiently
explored to make clear the great responsibility that formal education shares with the home in teaching social skills and creating the right atmosphere in which these skills will develop.

Purpose of the Study

The purpose of this study is to change the structure of a fifth-grade class in order to increase the social interaction of the group.

Subjects

The subjects were thirty-one fifth-grade students at the North Texas State College Laboratory School. The group contained seventeen boys and fourteen girls (one boy dropped out). This group of subjects is unique in that

1. The subjects have been together since the first grade with but one change since the third grade. One boy was added.

2. Twenty-three out of the thirty subjects have at least one parent in a professional position.

3. The class average for the Stanford Achievement Test was 5.79. (The average for a fifth-grade class is 5.0.)
Measurements

The structure of the group was measured by a sociometric test. The sociometric test measures the informal structure of the group relative to a specific criterion. It is not a measure of popularity. For example, a person choosing another person to sit by him would not necessarily choose the most popular individual in class; instead, he would probably choose the person he could best "get along with." The Bonney-Fessenden Sociograph was used to record the sociometric data (3). This is a graph devised by M. E. Bonney and S. A. Fessenden designed to simplify the recording and interpreting of the sociometric data.

The General Anxiety Scale for Children was used to test for anxiety in the group (5, p. 309). This anxiety scale was devised by Sarason and four associates at Yale University. The research on anxiety lasted six years and resulted in a book consisting of the data gathered and two anxiety scales. The scales reliability ranged from .64 to .79 with an average of .72.

Assumptions and Hypotheses

One of the basic assumptions in sociometry is that all group structures can be changed by appropriate effort. In this study appropriate effort consists of the following:

1. Sociometric grouping

2. Role playing
3. Parent conferences
4. A wide range of activities that provide opportunities for class participation
5. A democratic atmosphere.

A discussion of the above techniques will be given in a later chapter.

The group change was measured by sociometric criteria. The criteria are as follows:

1. An increase in mutuals (An increase would be indicative of more realistic choosing.)
2. A decrease in isolates
3. A broadening of the cliques
4. A lowered range and better distribution
5. An increase in choosing across sex lines
6. An increase in choosing between members of the upper fourth
7. An increase in emotional expansiveness as measured by the number chosen
8. A decrease in anxiety as measured by the General Anxiety Scale for Children.

The assumption is not made that any specific technique of group change will cause any one change in group structure. Rather, it is assumed that all of the techniques contribute to each change in group structure.
The hypotheses are that by applying the techniques defined under appropriate effort

1. The mutual choices will be increased.

2. There will be a reduction in the number of isolates.

3. The cliques will be broadened.

4. The range between the highest and lowest number of choices received will be lowered.

5. There will be an increase in choosing across sex lines.

6. There will be an increase in choosing between members of the upper fourth in number of sociometric choices received.

7. There will be an increase in emotional expansiveness.

8. There will be a decrease in anxiety as measured by the General Anxiety Scale for Children.
CHAPTER BIBLIOGRAPHY


CHAPTER II

RELATED RESEARCH

In conducting research involving group change, it would be of value to investigate the consistency of sociometric status. The studies in this area are so numerous that an attempt will be made to report only a few of them.

Studies have shown that sociometric test scores have a very high degree of consistency, particularly when the retest interval is short. Jennings (9), as a part of an extensive study of sociometric status in a training school for delinquent girls, reports a coefficient of .96 on retest after a four-day interval.

Newstetter, Feldstein, and Newcomb found an average coefficient of .95 based on data given on four successive weeks. Zeleny (14) reported, at the college level using five choices and one criteria, coefficients ranging from .93 to .95 on readministering sociometric tests on successive days.

Bronfenbrenner (4), in a study with the entire population of the University of Michigan Laboratory School, concluded that in classroom situations marked shifts in
sociometric status are comparatively rare, and that on the whole children tend to retain the same general social position with the tendency more pronounced in the older age groups.

Wertheimer's (13) study revealed reliability over a longer period of time. In this study, retests were given eight, twelve, and twenty months apart. Coefficients were all statistically significant beyond the .01 level. Bonney (2) reported that in general social acceptance was approximately as constant over a three-year period as intelligence quotients or academic attainment.

Although a relatively high degree of stability has been indicated, there is evidence that even greater stability occurs at the extreme sociometric status positions. In other words, stars, isolates, and fringers tend to shift less in sociometric status than individuals in the average sociometric categories (7).

Thompson and Powell (12) studied the stability of stars and fringers in sixth-grade classes. They reported that between 66 per cent and 100 per cent of the stars maintained the same sociometric position over one- and five-week intervals. The relative stability of the fringers ranged from 59 per cent to 90 per cent for the same periods of time. Gronlund (8) made a similar study over a four-month period. The high status group included those
pupils receiving nine or more choices (stars). The low status group received one choice (fringers) or no choices (isolates). The stability over the four-month period was 60 per cent for the high status group and 67 per cent for the low status group.

Although research has shown sociometric status to be relatively constant, these positions can be changed for the better by appropriate effort (3).

A major concern in group change is to help the isolated individual get group acceptance. Roberts (10) suggests an outline to build up isolates in the eyes of their classmates.

1. Note undesirable behavior characteristics
2. Have a conference with the isolated individual
   a. Make sure you know him
   b. Determine his feelings about his perceived position
3. If possible, help him recognize the undesirable characteristics brought out in item 1
4. Help him plan steps to improve his position
5. Provide opportunities for him to assume positions of responsibility—this may help him build self-confidence (taking charge of play equipment, special exhibits, bulletin board, library corner, and so on)
6. Develop a situation in which the individual gains status in the eyes of classmates
7. Parent conferences
Gronlund (7, p. 297) suggested a number of general procedures that will aid the classroom teacher in planning an effective remedial program for isolates.

1. Sociometric placement

Isolated pupils should be placed with their first choice. Other therapeutic group arrangements must be based on the teacher's evaluation of social progress of the unchosen pupil and of the progress the total group is making toward improved social relations.

2. Maintaining an accepting attitude

The attitude of the teacher toward the isolated pupil is an essential factor in helping him improve his social relationships with his peers. Maintaining an attitude of personal warmth and acceptance toward the unchosen pupil adds to his feeling of security and belonging in the classroom.

3. Helping pupil modify behavior

Isolates can generally be helped in developing the necessary social knowledge and skill through group discussions, role playing, and other group techniques. However, the group procedures should be supplemented by individual attention from the classroom teacher.

4. Helping pupils attract favorable recognition from peers

Arrange situations where the pupil can demonstrate a skill which is highly valued by the group. Skills in such areas as art, music, sports, and dancing can be used effectively in the elementary school classroom.

Davis (6) in a study of group therapy and social acceptance investigated the question, Can the degree of social acceptance be increased? The results of the study
showed an observable gain in the degree of social acceptance in a first-second grade after part of the group received group-play therapy for nine to twelve half-hour periods, as compared with the degree of social acceptance exhibited in the control group which received no play therapy. Davis concluded that a classroom organized around the philosophy which underlay his play therapy period may be the answer to increasing the degree of social acceptance in the school situation—a permissive atmosphere in which every child is accepted as an individual with his own interests and needs.

A major factor in improving group interaction is the attitude and personality of the teacher. Sandrette (11) reports that, in general, the under-chosen child feels that teachers are unfriendly, unkind, and unfair. It is up to the teacher to put forth effort to overcome these feelings. Bonney (3) points out that his studies in sociometry show the value of a democratic atmosphere.

Strict teachers do not allow opportunity for self expression.

Christiansen (5) brings up the possibility that the pupil might not be able to accept his teacher as a friend under any conditions. It is suggested that another teacher be made available for consultation with the student. The teacher may say to the child, "Jerry, you and I haven't
been getting along too well together, have we? How would you like to talk it over with Miss B?" Miss B, another teacher in the school who does not teach Jerry this year, is, of course, prepared for the visit. She is to act as Jerry's adult friend, to meet him on the basis of complete, uncritical acceptance.

Anderson and Brewer (1), using carefully controlled observation techniques, compared the effects of teachers' dominative and integrative behavior on the classroom behavior of pupils. Dominative behavior reflected attempts on the part of the teacher to make pupils behave in terms of his own standards and purposes without consideration of experiences, desires, purposes, or judgments of the pupils. Socially integrative behavior was described as that which considered the experiences, desires, purposes, and judgments of the pupils. The results indicate that teachers with dominative behavior tended to reduce social participation and to increase interpersonal conflicts among pupils. In contrast, the pupils who were with socially integrative teachers showed more spontaneity and initiative in their behavior and more voluntary, constructive social responses toward each other.
CHAPTER BIBLIOGRAPHY


CHAPTER III

METHODOLOGY AND PROCEDURE

Gathering Data

Shortly after the beginning of the fall semester, the subjects were given the Bonney-Fessenden Sociograph. Two criteria were used, one on a friendship basis and the other on a work basis. The criteria were as follows:

1. "Choose the other pupils near whom you would like to sit."

2. "Choose the other pupils with whom you would like to work on a committee."

The subjects were provided with a list of names from which to choose. The list consisted of the names of all the subjects and the stated criteria, one and two.

The subjects were assured that only the examiner and their teacher would know what choices they had made and that they would be seated near the persons whom they chose, when possible.

The General Anxiety Scale for Children was given to the subjects.
Sociometric Grouping

A seating plan was made from the data collected, and the subjects were seated accordingly. The isolated pupils were placed in the most favorable positions for developing satisfying social relationships. These unchosen pupils were placed near their first choice. The isolates were not seated near one another. Next, the fringers, those receiving one choice, were seated near their highest choice. It was assumed that the highly chosen pupils can make social adjustments regardless of seating; therefore, their choices were considered last.

Work groups were formed. These groups included
1. A group presenting a program
2. Committee groups
3. Groups reporting on various topics

Children from both sexes were represented in these work groups.

Role Playing

The role-playing technique was used when the subjects spontaneously brought up a problem. On Monday morning the subjects were allowed to tell about "their week end
In telling their week-end stories, the subjects brought out conflicts with their siblings, parents, and peers. The most suitable of these stories were chosen for role-playing situations.
Parent Conferences

Parent conferences were held with the parents of each child in the group by the teacher.

Class Participation

A wide range of activities provided opportunities for class participation. The work groups were allowed to write as well as present their own plays and programs. Individuals were given opportunities to give talks on their hobbies and special interests. Students led class discussion, read original stories, and presented drawings of current events to be identified by the class.

Democratic Atmosphere

The teacher attempted to develop a permissive and relaxed classroom atmosphere where the expression of feelings was encouraged. Democratic procedures, based on teacher-pupil planning, were used in determining the actual classroom work. Work groups and committees were arranged and rearranged along sociometric lines. Thus, a classroom environment was arranged which enabled pupils to learn social relations skills by practicing democratic procedures in a supportive emotional climate.

Testing and Retesting

At the beginning of the spring semester, a sociometric test was administered on a seating criteria. This test was
given to check on the progress of group change. At the end of the spring semester, the final sociometric test was given along with the General Anxiety Scale for Children.
CHAPTER IV

RESULTS AND DISCUSSION

The over-all stability of the group was checked by correlating the choices received on three sociometric tests on "seating" criteria, test one (given in the third grade), test two (given at the beginning of the fall semester), and test three (given at the end of the spring semester). Test one and test two correlated at .68; this was significant at better than the .01 level of confidence. Test two and test three, between which efforts to change the group structure were made, correlated at only .35. Although correlation approached significance at the .05 level, it is considerable below the correlation of test one and test two. These results show that there was a greater change in sociometric choices received in two semesters than there had been in the previous six semesters. These findings support the basic assumption that group structure can be changed by appropriate effort.

Table I reveals the changes that took place between tests two and three.

The results shown in Table I are as follows:
<table>
<thead>
<tr>
<th>Classification of Test</th>
<th>Mutuels</th>
<th>Isolates</th>
<th>Cliques</th>
<th>Range</th>
<th>Cross Sex Choosing</th>
<th>Emotional Expansion</th>
<th>Choosing between Upper Fourth</th>
<th>Mean Anxiety</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test</td>
<td>50 (34%)</td>
<td>1/4 (13%)</td>
<td>20 in 6 Cliques</td>
<td>13</td>
<td>21</td>
<td>144</td>
<td>17 (11.8%)</td>
<td>18.58</td>
</tr>
<tr>
<td>Retest</td>
<td>60 (49%)</td>
<td>1 (3.45%)</td>
<td>27 in 7 Cliques</td>
<td>10</td>
<td>5</td>
<td>123</td>
<td>15 (12.1%)</td>
<td>16.1</td>
</tr>
</tbody>
</table>
1. The mutual choices were increased from fifty (34 per cent of the total choices) on the first test, to sixty (49 per cent of the total choices) on the retest. Twenty-four of the mutual choices made on the first test were dropped on the retest so that actually thirty-four new mutual choices were made on the retest. These results show a definite increase in realistic choosing. In an atmosphere which permits a wide range of activities and interpersonal interaction, the pupils are better able to appraise their classmates as well as themselves; hence, these pupils will be better able to make interpersonal choices on a more realistic basis.

2. There were four (13 per cent of the total choices) isolates on the first test and one (3.45 per cent of the total choices) on the retest. One isolate received a mutual choice on the retest and one choice which was not reciprocated. Another received two choices, and the remaining isolate received one choice on the retest. At least a partial integration of the isolates into the group is a large step forward since it is usually the isolates that retard group cohesiveness.

3. The cliques were broadened. On the first test there were nine girls in three cliques, while on the retest, all fourteen girls were in four cliques. In the
boys' cliques on the first test there were eleven boys in three cliques while on the retest there were thirteen boys in three cliques. Four of the boys were still not included in a clique. The cliques were open; i. e., there were many choices between cliques. The boys' cliques were all connected by mutual choices. The broadened and opened cliques make possible better communications within the group.

4. The range on the first test was thirteen, and on the retest it was ten. The distribution was more homogeneous on the retest. When most of the choices were given to a few persons, there was an indication that many of the class members did not have an opportunity to contribute to the group or demonstrate their abilities. The lowered range reveals that most of the choices were not centered on just a few persons but were better distributed throughout the group.

5. The sex lines became tighter. On the first test there were twenty-one choices across sex lines. On the retest there were only five choices across sex lines. On both tests the choices were predominately from girls to boys; on the first test three boys chose girls; on the retest none of the boys chose a girl. The choosing across sex lines not only did not improve but actually lost ground. This decrease may be partially due to the competition
between the sexes in class activities. Also, these pupils were at the age where the opposite sex is least appreciated.

6. The emotional expansiveness was decreased. The number of choices given dropped from 145 to 123. However, the choices on the retest were more realistic than on the first test. Almost one half of the choices made were mutual choices. Also, one of the boys had dropped out of the class and another was not available for the retest. The absence of these two boys contributed to the decrease in the number of choices given.

7. There was actually a decrease in the number of choices within the upper fourth, but there was a slight increase in the percentage of choosing between members of the upper fourth on the retest. In order for the group to be unified in their efforts to achieve group tasks, the group leaders must support each other. The lack of a unified leadership here was a carry-over from the cleavage between the sexes. The class was essentially split into two groups of male and female leaders. The competitive feelings generated may have retarded the achievement of group goals.

8. There was a decrease in the anxiety score on the retest. This decrease was not statistically significant, however. Fisher's t formula was used to test for
a significant difference. The resulting t score was only .363, which did not approach significance. Anxiety is an important factor in grades, peer relations, and personality integration. The assumption that the reduction in group tensions because of the permissive atmosphere would result in a reduction in anxiety was not substantiated. It is possible that the type of anxiety tested could not be reduced by any group procedure but would require more extensive individual attention.
CHAPTER V

SUMMARY AND CONCLUSIONS

The purpose of this study was to change the structure of a fifth-grade class in order to increase the social interaction of the group. Thirty pupils in a fifth-grade class were sociometrically seated and given the opportunity for class participation. Improvement in the socialization of the class was checked by the following points:

1. Increased mutuals
2. Decrease in isolates
3. Broadened cliques
4. Lowered range
5. Increase in choosing across sex lines
6. Increase in emotional expansiveness
7. Increase in choosing between members of the upper fourth
8. A decrease in anxiety.

Items 1, 2, 3, and 4 showed evidence of better socialization while items 5, 6, 7, and 8 did not show such evidence.
The results of this study show that if an effort is put forth, improvements can be made in group structure. The isolates position, in particular, can be enhanced with the techniques used in this study.

The procedures used in this study were of the non-technical variety and could be mastered by any classroom teacher. However, the teacher's personality would have to be of the type that could allow a permissive atmosphere and delegate much responsibility to the students.
APPENDIX

General Anxiety Scale for Children

1. When you are away from home, do you worry about what might be happening at home?

2. Do you sometimes worry about whether (other children are better looking than you are?) (your body is growing the way it should?)

3. Are you afraid of mice or rats?

4. Do you worry about knowing your lessons?

5. If you were to climb a ladder, would you worry about falling off it?

6. Do you worry about whether your mother is going to be sick?

7. Do you get scared when you have to walk home alone at night?

8. Do you ever worry about what other people think of you?

9. Do you get a funny feeling when you see blood?

10. When your father is away from home, do you worry about whether he is going to come back?

11. Are you frightened by lightning and thunderstorms?

12. Do you ever worry about not being able to do something you want to do?

13. When you go to the dentist, do you worry that he may hurt you?

14. Are you afraid of things like snakes?

15. When you are in bed at night trying to go to sleep, do you often find that you are worrying about something?
16. When you were younger, were you ever scared of anything?

17. Are you sometimes frightened when looking down from a high place?

18. Do you get worried when you have to go to the doctor's office?

19. Do some of the stories on radio or television scare you?

20. Have you ever been afraid of getting hurt?

21. When you are home alone and someone knocks on the door, do you get a worried feeling?

22. Do you get a scary feeling when you see a dead animal?

23. Do you think you worry more than other boys and girls?

24. Do you worry that you might get hurt in some accident?

25. Has anyone ever been able to scare you?

26. Are you afraid of things like guns?

27. Without knowing why, do you sometimes get a funny feeling in your stomach?

28. Are you afraid of being bitten or hurt by a dog?

29. Do you ever worry about something bad happening to someone you know?

30. Do you worry when you are home alone at night?

31. Are you afraid of being too near fireworks because of their exploding?

32. Do you worry that you are going to get sick?

33. Are you ever unhappy?

34. When your mother is away from home, do you worry about whether she is going to come back?
35. Are you afraid to dive into the water because you might get hurt?

36. Do you get a funny feeling when you touch something that has a real sharp edge?

37. Do you ever worry about what is going to happen?

38. Do you get scared when you have to go into a dark room?

39. Do you dislike getting in fights because you worry about getting hurt in them?

40. Do you worry about whether your father is going to get sick?

41. Have you ever had a scary dream?

42. Are you afraid of spiders?

43. Do you sometimes get the feeling that something bad is going to happen to you?

44. When you are alone in a room and you hear a strange noise, do you get a frightened feeling?

45. Do you ever worry?
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