

Group Formation for Teaching

**Sociometrically formed groups are particularly suited
to meet demands of many current teaching
situations in Extension**

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RECENT DEVELOPMENTS in Extension may justify giving more attention to the effectiveness of different types of groups being utilized in Extension's teaching efforts. For example, of recent years increased emphasis has been placed on intensive educational programs such as farm and home management. Efforts have been made to reach new audiences such as homemakers and 4-H aged children in lower socioeconomic families. Attempts have also been made to reach dispersed members of special interest groups such as poultry farmers in predominantly dairy or crop farming areas. Obviously, such audiences and their needs are diverse. It is encouraging that Extension personnel are concerned that the type of groups formed, if any, will be the type which will facilitate learning the knowledge, understanding, and skills to be taught.

Type of group formed for teaching purposes can justifiably vary according to the characteristics of the audience to be reached. Type of groups and methods of forming them may also vary according to the proportion of the potential audience the educator desires to reach. For the purpose of this paper and the research being summarized here, certain speculations are made. It is pretty well known that the size of group that will function effectively in a learning situation depends on a number of factors. In this case, it is speculated that more groups will be needed as the following conditions increase: (1) the intensity of the education; (2) the complexity of the subject matter and skills to be learned; (3) the number of lessons to be taught; and (4) the proportion of potential audience to be reached.

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The author is convinced that these four conditions are ones toward which Extension programs are tending and that, if this is true, small special interest groups will be utilized more than they have been in the past. This paper will explore such ideas. As a background, results of New York State's experimenting with formation of farm management study groups by use of the sociometric choice technique will be used. The results of these studies illustrate how guidelines to group formation can be applied.

A sociometric group is defined as one formed by combining persons on the basis of their choices for one another. Because there are different ways in which groups might be formed by sociometric type data (which in turn would lead to considerably different group compositions), a brief description of the New York system is warranted. The method first identifies the "core" units, generally of three to five persons. A core unit has each member related to all others by reciprocal choices. Typically, more such core units are identified than are needed for the number of groups to be formed. The few core units to be used are then selected on the basis of total score for choice relationships with all potential participants, and secondly, on the basis of no duplication of members with other core units to be used. Additional members are then added to these selected core units on the basis of choices made by core unit members as well as choices made by other potential group members. In scoring, mutual choices are weighted more than one-way choices.

USING SOCIOMETRIC GROUPS

As a possible solution to an agent's struggle to organize groups which would be effective and would have high participant attendance, New York State's Office of Extension Studies began work with the formation of sociometric groups. For example, the agent had experienced organizing two groups in a township, one of which was an effective group and the other ineffective. By interviewing eligible farmers in the township and obtaining sociometric data it was found that the effective group was actually a sociometric group although not originally formed by the method. The ineffective group's members were regrouped sociometrically in four different groups along with ten new members recruited by the sociometric survey.¹ Regrouping of the ineffective group members resulted in "considerable change in behavior of members of the (pre-

¹ J. W. Longest, Frank D. Alexander, and Jean Harshaw, *Sociometric Formation and Effectiveness of Groups in a Farm Management Program*, Extension Study No. 2 (Ithaca, New York: Office of Extension Studies, Cornell University, 1962), pp. 9-12.

survey) larger group. Changes observed indicated substantial improvement in communication, cohesiveness, and give-and-take with members of the new group.”

This experience and subsequent use in other counties has demonstrated that the sociometric survey is a powerful recruitment technique. Much of its success in recruiting is believed to be attributable to the personal interview of the program teacher (agent) but it is also probably true that the method can “provide a much higher degree of interest and motivation on the part of participant subjects. . . . The possibility that his environment may be manipulated so as to comply with his wishes encourages a high degree of interest and cooperativeness on the part of the respondent. . . .”²

To test whether such involvement on the basis of choice does create interest, the interviewing to solicit interest in the program in another county was carefully structured. In one instance interest was solicited after explaining the program and how groups would be formed and after recording the respondent’s choices for those with whom he would like to work. In the second instance, interest was solicited after explaining the program—but before revealing how groups would be formed or asking the respondent to choose those with whom he would like to work; the latter two points were not covered unless the respondent said he would participate. In this single test (second instance above) 14 indicated interest and 13 did not (on the basis of only explaining the program). In contrast, by also explaining how groups were to be formed and recording the prospect’s choices of co-workers (first instance), twice as many signed up as did not (interested—18, not interested—9).

The agent, in the county referred to above, reported on the recruiting and attendance advantages of the sociometric groups, as well as some of the fringe benefits. He reported that this method had been a very effective way of recruiting families for the farm management program. For example, he reported that:

1. In 1961, 21 families from one area were started in the program by use of this method; in the previous five years of county-wide meeting, only three from that area had participated.
2. In 1962, 32 families were started in the program (in another township) by use of the method; in the previous seven years only five families from that area had taken part in the county-wide program.
3. Of the three groups started by this method in 1961, two met in the community building and one met in the homes of group

²Gardner Lindzey and Edgar F. Borgatta, “Sociometric Measurement,” in Gardner Lindzey (ed.), *Handbook of Social Psychology*, I (Cambridge: Addison-Wesley, 1954), 406.

members. The group meeting in homes averaged 90 per cent attendance and the other two groups averaged 80 per cent. More participation by wives was found at afternoon meetings. Attendance at meetings of sociometrically formed groups was 83 per cent (at four meeting series). Attendance at meetings of county-wide groups was about 50 per cent (at three meeting series).

4. Of the farm families started in 1962 by this method, attendance at the first summary meetings was 100 per cent except for two families that failed to complete the records and did not attend.
5. Agricultural Department membership from the township sociogrammed increased by 33 per cent in 1962; participation in other phases of the Extension program also increased.³

A current project (to end in 1966) is testing the differential effectiveness of small groups formed by two different methods. One method used was the sociometric technique.⁴ The other method grouped operators so that all members of each group were very similar in age and education and were operating the same size farm. This is called the "similar characteristics" method. After three years the sociometric groups have retained more of their members and have a much better meeting attendance and program participation record.⁵

REQUIREMENTS OF GROUP FORMATION⁶

Four requirements have been identified as the basis for effective group formation. The *first* is that persons to be involved should be *acquainted* with a high proportion of the other potential members.⁷

³ Part of a report to the 1962 New York State Extension Conference by Richard Eschler, Associate County Agent.

⁴ An objective and systematic method for analysis of the sociometric data for group placement of individuals has been developed. A bulletin describing the process will be available from the Office of Extension Studies, 261 Roberts Hall, Cornell University, Ithaca, New York, later in 1964.

⁵ There are area differences which probably affect attendance and participation somewhat. However, it is believed that the area differences are such that had sociometric groups been used in the area where similar characteristics groups were formed, attendance and participation would have been considerably better. Several persons have privately made remarks about not being with "persons they know" or "would like to be with." Analysis of attendance according to whether they are with persons they would have been placed with by choice correlate highly with their actual attendance records. The one exception is a group of young farmers with excellent attendance where there was little original sociometric choice as a basis for forming the group.

⁶ For a more detailed discussion see Norman E. Gronlund, *Sociometry in the Classroom* (New York: Harper and Brothers, 1959), pp. 39-54 (particularly p. 46).

⁷ By "acquainted" we do not mean they must be close friends but should know one another well enough to be familiar with the other person's values and know

This requirement relates to the necessity for each individual to make choices of those whom he would like in his group. In Extension this means that organization of the groups generally will be on a community or other locality base rather than county-wide. In some cases large special interest groups whose members are acquainted could be organized into smaller work or study groups by this technique.

The *second* requirement is that all persons eligible to participate should have *need* for and potential interest in the proposed educational program. This requirement along with the first one implies that the program must be one which is known to be needed by and can logically interest many of the potential participants. Examples meeting these two requirements would include: (1) a locality where most families are engaged in dairy farming and the program is a farm management program designed specifically for dairy farmers;⁸ or (2) an established housing division or locality with predominantly young families and the program is one on home management or family development designed for young families.

The *third* requirement is for assuring the possibility of reciprocal *choices* between potential members. This requirement is fulfilled in great part by satisfying the first two requirements but is completed by providing lists of all potential participants on which each interested individual may indicate those persons or families whom he would like to have in his group.

The *fourth* requirement is that program content and activities, including the way groups are to be formed, should be briefly *explained* to each person or family before they are asked to make choices. This requirement along with the third can best be completed by the program teacher in an interview with each potential participant. Personal contact provides an opportunity for the program leader to give a more personalized and adequate explanation of the program and to begin his acquaintance with the participants. This sociometric approach is of course more time consuming than mail or mass media methods and perhaps cannot be justified unless (1) the program consists of a number of lesson units which are fairly complex, (2) the program will continue for a year or more, or (3) the goal or requirement is to reach most of the audience. To involve certain classes of people (such as low-income families) Extension leaders may be required to have personalized interaction with the families—and more of it than we customarily provide. To

his status in the community. It is also not necessary for them to know everyone on the list of potential members, but they should know enough people so that they actually will be making choices when they indicate the five to ten they would like in their group.

⁸This is the situation in which the method has been applied effectively in New York State.

work with these new audiences successfully, leaders may need to give more attention to how groups are formed, where they will meet, how they will be conducted, and other details, in order to present the program activity as something not too remote from the cultural background and day-to-day life patterns of the families.

CHARACTERISTICS OF SOCIOMETRIC GROUPS

Since the choices people make are for others with whom they would like to work (on a specific task or subject-matter area and under specified conditions), such groups tend to be highly cohesive;⁹ this cohesiveness occurs because individuals tend to make choices of persons with whom they will feel comfortable as well as for those with whom they think they can benefit through association in the assigned task.¹⁰

It is speculated that such advantages as high attendance for these groups are more related to feeling comfortable in the group than to learning from other members. Since in most educational programs much of the learning occurs because of the knowledge and activities the teacher presents, it may be more important that the emphasis on choices for persons with whom they will feel comfortable should take precedent over persons from whom they can learn. Newcomb reports that "for most people, under most conditions, there seems to be no motive more important to satisfy than that of interacting with people whom they like. Groups which provide such motive satisfaction to most of their members tend to be cohesive groups."¹¹ Sociometric groups assure the potential for such interaction. If time is provided after meetings for refreshments and informal conversation, it is more fully realized than if there is only the educational program interaction.

In New York State's experimentation with sociometric group formation, farmers appear to select others for two basic reasons: (1) they select and appear to stress selection of persons with whom they feel comfortable and with whom they already have an established relationship; and (2) they often select others who are above them in community status. Their choices of those with whom they already associate may be both above and below their own status

⁹ A "cohesive" group is one whose members wish to and do remain together, tend to think of themselves as *we* and those not in the group as outsiders, and will abide closely to the norms for the group on such matters as attendance, manner of participating, and so forth.

¹⁰ Paul A. Hare, *Handbook of Small Group Research* (New York: The Free Press of Glencoe, 1962), p. 17.

¹¹ Theodore Newcomb, *Social Psychology* (New York: Dryden Press, 1950), p. 643.

position. Such choices are leader-follower types of selections and lead to mutual choice (two-way) relationships on the sociogram. The strictly status choices made for those of higher status than the chooser typically do not play much part in group placement. These choices are not returned by the higher status persons who are not a part of the chooser's natural leader-follower constellation. The New York State method of group formation, which weights mutual choices more than one-way choices in determining group placement, helps to avoid placing a person in a group where he would be uncomfortable because of the social distances.¹²

In spite of the fact that the question farmers are asked as a basis for making choices does not specifically suggest they do so,¹³ they have stressed choosing those comfortably close to their own status. The question preceding a list of farmers of the area used as the basis for soliciting choices has typically been phrased as follows: "Assume you are to be in a group to consider farm management problems. Which of these operators would you like to have as a member of this group?"

It is possible that such highly cohesive groups might be subject to becoming merely social groups. This is one of the possibilities that must be guarded against. There are four major ways of avoiding placing too much stress on the purely social: (1) provide time for socializing as well as work—and rigidly maintain separation; (2) structure the purposes, organization, and functioning of the group in such a way that the group's values and norms stress the learning objectives rather than social rewards (these can be enjoyed as fringe benefits but should not be in the conscious structuring and functioning of the group); (3) provide an educational program of such high quality that participants are challenged and required to work diligently during the meetings in order to meet the standards for completing the requirements; and (4) provide and train leaders who are or can become competent enough to lead the groups in such a way as to assure achieving the educational purposes. In order to assure competent leadership it may be necessary, in some cases, for a professional Extension worker to assume leadership of the group. However, in many cases it may only require more training for lay leaders. In other cases it may require the use of carefully designed leader selection criteria.

¹² The validity of grouping on the basis of reciprocal choices (two-way) is supported by previous research. For example, see Gronlund, *op. cit.*, p. 44.

¹³ The majority of choices in a community will be for higher status persons. This is automatic if there are fewer leaders than followers. The important factor is not the direction of most choices but what the *combination* of these choices reveals about interaction and leader-follower groupings in the community.

As indicated, the high cohesiveness of the group leads to high attendance. In addition, it will lead to more interaction between members at meetings and between meetings. Such interaction can lead to greater adoption of recommendations because of group pressure, assuming that the group has made a commitment concerning the desirability of specific recommendations.¹⁴ Members who are at ease in highly cohesive sociometric groups feel free to ask questions of the educator during the informal refreshment and discussion period as well as during the meeting. The author has observed the interaction in a number of these groups¹⁵ and has observed that such "pumping" of the agent occurs rather frequently—often allowing the agent to instruct the whole group on pertinent problem-solving questions. In larger groups, such as county-wide meetings, many of these questions would never have been asked or would have been asked by an individual following the meeting when most people had gone.

Sociometric groups typically include the people with whom each member usually talks when he wants information or advice. Therefore, when the educator can bring the group to a favorable decision on adoption of recommendations there is no question about what the "significant others" in a person's reference group think. The way is cleared for adoption with support. What others think is important to people and either inhibits or encourages adoption.¹⁶

CONCLUSION

As the basis for exploring the problem of group formation for the purpose of Extension teaching, it has been speculated that as Extension increases (1) the intensity of the education, (2) the complexity of the subject matter and skills to be learned, (3) the number of lessons to be taught, and (4) the proportion of potential audience to be reached, the more the number of groups needed will

¹⁴For the relationship of group commitment to adoption see Kurt Lewin, "Group Decision and Social Change," in Theodore M. Newcomb and Eugene L. Hartley (eds.), *Readings in Social Psychology* (New York: Henry Holt and Company, Inc., 1947), pp. 334-44.

¹⁵Observations using Bales interaction counts plus dictated notes were made for the first two years of a current five-year project to measure the differential effects of forming small farm management groups by the sociometric technique versus placement for group member similarity by age, education, and size of farm.

¹⁶See particularly C. Paul Marsh and A. Lee Coleman, "Farmers' Practice Adoption Rates in Relation to Adoption Rates of 'Leaders'," *Rural Sociology*, XIX (June, 1954), 18-81; and Anne W. van den Ban, "Locality Group Differences in the Adoption of New Farm Practices," *Rural Sociology*, XXV (September, 1960), 308-20.

increase. It is hypothesized that this is true because a relatively small group will function most effectively under such conditions. Sociometrically formed groups are particularly suited to meeting the demands of these four conditions.

The following conditions are those which facilitate the use of the sociometric technique: (1) the extent to which each person is acquainted with a high proportion of other potential members; (2) the need for the program by all potential members; (3) the extent to which the program leader provides a brief description of the program, program activities, and requirements for participation to each potential participant; and (4) providing a list of all potential participants from which each person can select those with whom he would like to be grouped. (The list assures that the universe from which selections are made is constant for all persons choosing.)

Small sociometrically formed groups have functioned effectively in meeting the demands of the intensive educational farm management program in some New York State counties. One such demand was for recruiting most of the eligible farm families in the township areas selected.

Attendance at meetings and fulfillment of program requirements have been very good when groups were properly formed and administered. It is believed that much of the success of these groups can be attributed to high cohesiveness which occurred because the groups were formed on the basis of giving priority to mutual choices in selecting group members.

IT IS HARDER to climb than to stroll along level road or dawdle down hill. But every man who wants to rise above the level of the beast desires to ascend, not descend. Difficulties are stepping-stones leading to the top. Therefore, do not dodge them, do not run away from them.

—from B. C. FORBES as quoted in *Forbes*, XCIII
(March 1, 1964), 56.

WE DON'T CONSIDER manual work as a curse, or a bitter necessity, not even as a means of making a living. We consider it as a high human function, as a basis of human life, the most dignified thing in the life of the human being, and which ought to be free, creative. Men ought to be proud of it. —DAVID BEN-GURION.

THE QUESTION, "Who ought to be boss?" is like asking "Who ought to be the tenor in the quartet?" Obviously, the man who can sing tenor.
—HENRY FORD.