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ABSTRACT

Teams and groups are an important aspect of organizations today; thus the current emphasis on teams in the classroom. Research suggests several aspects of the composition of a group can influence its performance. However, students are rarely provided with effective strategies for composing groups in classroom exercises involving groups and teams. This article describes an exercise that teaches students what issues to consider when putting together a group or team for some specific purpose.

INTRODUCTION

It appears that in today's world, work teams, rather than individual employees, dominate industry (e.g., Thurow, 1983). Further, it has been suggested that the increasing use of groups in organizations will continue well into the future (Reich, 1983). The business community's increased need for employees who are well prepared to work in groups has stimulated many schools of business to emphasize teamwork.

For example, group projects are now found in a number of business classes. They are also common in a number of other fields, such as engineering. In an informal poll I took of one Principles of Management class made up largely of engineering, business, and science majors, students estimated that they work in 3 to 4 project groups per quarter for their classes. Thus, over four-year period, these students can expect to work in approximately 35 to 50 project groups! In addition to using group projects to teach students how to work in groups, some instructors rely on experiential techniques that help students

understand the complexities of teamwork. Some techniques have been around for a time, such as the use of T-groups for sensitivity training (see Schor & Sabiers, 1995 for a review). In addition, a number of new techniques have been developed. For example, exercises have been proposed for introducing group processes to students (Manning & Schmidt, 1995), understanding problematic behaviors of group members (Lerner, 1995), and stimulating emergent behavior in groups (Reynolds, 1995).

However, most exercises focus on interactions after the group has been formed. Exercise instructions often simply ask instructors to form groups of a certain size, with little attention given to who is in the group. These groups are often formed randomly or expediently by instructors, such as by having students count off by five or by forming groups of students that sit close together in the classroom. When students are asked to form the groups themselves, they tend to form groups based on their friendships with other class members. This can result in the instructor having to combine students left out of the friendship groups.

While the need to form groups expediently for certain exercises is understandable, instructors should be careful not to send the wrong message to students. These methods of forming groups don't reflect real-world conditions. Forming groups of random individuals for performing a task is rarely done in organizations because it could be disastrous. Research and theory suggest that group composition can have a large impact on group performance (for a review, see Guzzo & Shea, 1992). Thus, the challenge in organizations is to compose an effective group within the constraints of organizational politics or policies (e.g., a representative from each department must be on the team).

Strategies for Forming Effective Groups

There are a number of useful strategies for composing groups that can be derived from the research literature. Most of the literature suggests that groups should be made up of members with the greatest task-relevant expertise (e.g., Hackman & Oldham, 1980). In addition, research suggests that homogenous groups initially perform better than groups with diverse members. However, in the long term, heterogenous groups are more effective at tasks requiring problem solving and creativity, such as in generating alternative solutions (e.g., Hoffman, 1959; Stein, 1982; Watson, Kumar, & Michaelsen, 1993). Heterogenous groups also should be more likely to avoid group think (Janis, 1982). Further, management texts often recommend that groups contain both task-oriented and relationship-oriented members (e.g., Whetten & Cameron, 1995; Bateman & Snell, 1996). Groups made up entirely of task-oriented members often can't resolve conflicts and groups made up entirely of relationship-oriented members have difficulty accomplishing the task. Recent research indicates that the extraversion of members is an important consideration as well, with the most effective groups having 20% to 40% high-extraversion members (Barry & Stewart, 1997). A person who has the task of composing a group or team should also consider the size of the group. Most experts agree that groups should not have too many members (Hackman & Oldham, 1980; Guzzo, 1988), one reason being that larger groups run a higher risk of social loafing occurring (Latane, 1986; Steiner, 1972). However, groups that are too small for the size and complexity of the task are likely to be ineffective as well.

It should be noted here that some instructors do consider these factors, particularly when putting together more permanent project groups in their classes. For example, Barry & Stewart (1997) describe a study of processes in self-managed

groups in an MBA course. In this study, they state that "The basis of group formation was essentially random, with intervention by the researchers to ensure an even distribution across groups of demographic minorities in the study population" (p. 67). However, often instructors who conscientiously put together groups so they have characteristics that will enhance their effectiveness fail to communicate what they did to the students, so the students do not learn the techniques for building effective teams. Therefore, teaching methods are needed for students to learn strategies for building a team. Although this could be done indirectly through instructors' descriptions of their own use of these techniques in the class, students may more effectively learn these techniques through the experiential exercise described here.

COMPOSING A TEAM EXERCISE

Objectives

This exercise demonstrates important concepts in composing a team or group. The objectives of the exercise are to 1) have students experience the difficulties of composing a group; 2) have them reflect on likely effects of the composition of the groups they put together; and 3) have students learn some strategies for composing effective work groups.

Scheduling the Exercise

I have conducted this exercise in Principles of Management classes and in a course called "Leadership of Groups". However, it could be used for any course containing group work, whether in accounting, marketing, finance or other courses. I conduct the exercise during class. It usually takes about 40 minutes for each part (20 minutes for composing the groups, 15-20 minutes for examining group composition). I use this exercise to *demonstrate* the tendencies people have to create groups of convenience or groups with people similar to them. I also use it to *introduce* the topic of composing groups for team

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done quickly and avoid further interviews. I then assign a team purpose or task to each of these students. While I do this randomly, instructors might prefer to assign students to tasks they are likely to know little about in order to test their abilities a little more or to demonstrate that composing groups when you are not an expert at the task can be more difficult. I then ask the students to form their teams by selecting members from the remaining students. To do this, the students forming the teams interview various students in the class to see if they have the characteristics wanted for the team, taking notes, and keeping track of the students they have selected. Teams can overlap in membership; in other words, a member of one team might also be a member of another team. I leave the size of the teams up to the discretion of the students putting them together. This allows the class to discuss later whether the chosen size of the team seemed appropriate for the task.

To examine the composition of the groups, I have those who formed the teams write on the board the purpose of their groups and the students they chose for their groups. One by one, I have them explain why they chose each student for their team. Often, as they explain their choices, it becomes apparent that they chose group members primarily according to 1) whether they seem willing or available to do the task, 2) whether they sat near the student forming the group, or 3) whether they are similar to the student forming the group. I discuss each of these with the class in turn.

A commonly expressed reason for including certain students is that they were interested in the task or available (i.e., had time) to do it. The instructor should ask students whether this should be the sole or primary factor in composing a team. What would happen, for example, if members were willing, but did not have the expertise needed for the task?

Some students who do this exercise do not move from their seats. They interview the people surrounding them and do not move to other areas of the classroom to interview additional students. Since this reason of convenience is observable, but not usually expressed by students when they present their groups, the instructor needs to watch for this behavior and point it out to students when it happens. Students should discuss why it occurs and what effects it might have on team effectiveness. For example, will people who are near each other physically be likely to think alike (a tendency that makes group think likely)? Will they be likely to all be the best people for the task in terms of expertise?

The instructor should also watch for the tendency to put together groups of individuals who are similar to the person forming the group (e.g., all male or all female groups or groups with students in the same major or on the same athletic team). Since people often do this without realizing it, the instructor should point it out to students when it happens. Students should discuss why it occurs and what effects it might have on team effectiveness. For example, will groups that are highly homogenous be likely to fall into group think?

Part II: Using Effective Strategies

Following a brief lecture concerning how to compose groups to increase group effectiveness, Part H of the exercise is done. Students do the same task as in Part I, except they are instructed to try to create groups that follow the strategies presented in class. Groups should contain demographically heterogeneous members with task-relevant expertise, groups that have the right mix of task-oriented and relationship-oriented members, groups of the appropriate size, and groups with an appropriate mix of extraverts and introverts (see Table 1).

Once again, to examine the composition of the groups, those who formed the teams should write

TABLE 1

<i>Desired Dimensions</i>	<i>Strategy</i>
Accountability within group	A group not too large for the task
Creative problem solving	A group with diverse experiences and viewpoints
Task focus	A group with task-oriented members
Conflict Management	A group with relationship-oriented members
Expertise	A group with members with task-relevant expertise
Group interaction	A group with 20-40% high extraversion members

Their group's purpose and membership on the board and explain their choices. After each student forming a group has presented his/her team, I have the class examine the composition of the team, looking for the dimensions that have been presented in class as strategies for forming effective team, looking for the dimensions that have been presented in class as strategies for forming effective teams (see Table 1). Following are some questions that should be considered: Is it of the appropriate size? Does it have members with the needed expertise? If it is a long-term problem-solving task, does it have diverse members, such as in terms of demographic characteristics (e.g., age, ethnic origin, and sex)? Does it have both task- and relationship-oriented members? Does it have the right combination of extraverts and introverts? [the last two questions should be asked when the class already has an understanding of these different orientations and students have filled out self-assessments of these dimensions, such as the T-P Leadership Questionnaire found in Exercises in Management (Burton, 1990).]

An Additional issue that I like to discuss helps underscore the importance of using effective strategies when composing groups. It is an issue that

students rarely think about, but that the recruitment and selection literature considers to be a decision-making error (e.g., see Cascio, 1991): What happens to those who would have made a great contributions to the groups effectiveness (for example, because of their expertise or their unique life experiences) but who were overlooked in the selection process? Erroneous rejections can hurt the group or organization in two ways, not only through the loss of talent within the group, but also through the loss of talent to other groups. Individuals who were erroneously rejected often get jobs with competing groups or organizations, so their good ideas are being used to help the opposition. When I ask class members to consider what people were overlooked when the teams were composed, we often find that students who had worked in tourism were left off the tourism team and that nobody put on the team had worked in tourism. This outcome is often a direct result of the methods of those composing the teams. For example, it will be likely to occur if those putting together the teams chose mainly people that they already knew or people that were most similar to themselves (e.g., same sex, same nationality). Three of the seven members of the team of a student in one class were students who sat next to the student (in a class of nearly 60 Students). (In fact, for the first five minutes of the exercise, she never moved from her chair.) In our discussion, this student found that she had missed three people in the class who had tourism experience. Further, only one member of her group of seven had tourism experience. It is useful to discuss how missing these potential members can limit the effectiveness of the group.

I sometimes bring up group-related issues that are not necessarily directly related to the strategies for composing groups previously discussed, but that have come up in the course of performing the activity. For example one question I often ask is why certain people appeared on many of the team rosters--what aspects of these people were those composing the groups focusing on? In one class that performed this exercise, two women appeared on every team. After some discussion, it became

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apparent that they had been selected because one woman was perceived as being very task-focused and the other woman was perceived as being very relationship-focused. Thus, they had been selected repeatedly to provide the teams with both task and relationship-oriented members. Another interesting aspect in the same class was that women were represented on the teams in a greater proportion than they were found in the class. (In another class, foreign students appeared in the teams in a greater proportion than in the class.) The class discussed possible reasons for this not only in the class activity but in actual organizations (e.g., a “token” woman is needed to present an image of having a representative team, or women are perceived as being less likely to say “no”). Next, it is useful to explore the implications of selecting members of a group for these reasons. For example, this can introduce a discussion concerning how women and minorities sometimes get more of their share of certain committee and service-type tasks in organizations, which can limit their effectiveness in other aspects of their positions.

Variations and Additional Applications

Instructors can have each student in the class form a group made up of class members to allow all students to experience the difficulties inherent in the task. If it is too time-consuming for the class to provide feedback on all the formed groups, instructors can ask students to turn in the lists of the members they chose for their groups (along with the reasons for the choices) for feedback from the instructor.

Instructors can provide students with a longer time to form their groups so they can collect more information about potential group members and more carefully compose their groups. The exercise could be assigned as homework, with interviews of potential group members to occur outside of class.

To allow students to see actual effects of their group compositions, instructors can use this exercise to compose groups that will actually interact to perform a group project during the semester or quarter. The primary disadvantage of this variation is that the composed groups would then have to be mutually exclusive and every student in the class would have to be assigned to one of the groups. It is a considerably more difficult task to form mutually exclusive groups that are all effective. With this format, class members with certain characteristics that would enhance group effectiveness can only be assigned to one group.

This exercise can be performed to illustrate some aspects of recruitment and selection of personnel in general, as alluded to earlier. It is particularly suitable for illustrating how biases can operate—for example, the tendency to pay greater attention to candidates one already knows or who are convenient to interview or the tendency to overlook relevant information (e.g., restaurant experience). It is also a good exercise for practicing interviewing skills—especially asking the right questions to obtain critical information about a variety of aspects of an applicant. For example, students can be taught to look for the two types of employability recruiters have been found to look for—objective work qualifications and applicant “fit” to the organization (Rynes & Gerhart, 1990).

One limitation of this exercise is that it is somewhat difficult to simulate some of the political considerations organizations face when putting together groups. However, instructors can impose constraints when assigning the group purpose (e.g., “To make certain groups in the organization happy, you must include one person in your group who has ‘X’ characteristic, while still trying to follow strategies for composing effective groups”). Students can be asked to discuss when these political considerations can help increase group effectiveness and when they can hinder them. For example, when politics

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require that the group include one person from each functional grouping and when the task is a problem solving task requiring diverse viewpoints, the political considerations are congruent with strategies for composing an effective group.

In conclusion, this paper suggests that instructors teaching teamwork incorporate techniques for teaching students how to compose effective work groups. An exercise was described that can be used to generate discussion about a number of topics pertaining to creating groups, including demographic and psychological factors and issues dealing with recruitment and selection.

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