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Effective Team Building: Guidance for Accounting Educators

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ABSTRACT: Accounting educators are charged by a multitude of professional bodies with instilling the skill of team building in their accounting students. However, accounting educators often do not have the background in the myriad disciplines required to effectively impart team-building techniques. This paper reviews the sociology, industrial psychology, and organizational behavior literature and applies that literature to accounting to help accounting educators identify effective team-building techniques. We review the major models and theories of team building and draw on these theories and selected prior research outside accounting to provide guidelines for educators who wish to promote team-building competencies within group projects.

Keywords: team building; teams; group; group projects.

INTRODUCTION

A recent survey of 783 accounting professionals and educators cited nearly three-quarters of accounting faculty who incorporate "team (group) work" (Albrecht and Sack 2000, 54) into their classes. However, educators may assign group projects with little or no class discussion of team building, group interaction, diversity, or conflict resolution techniques (Colbeck et al. 2000). Lancaster and Strand (2001) and Colbeck et al. (2000) note that accounting faculty may not be trained in the behavioral processes that facilitate effective team building. The purpose of this paper is to draw from a variety of contributing disciplines to provide guidance to accounting educators on how to ensure effective team-building experiences within accounting courses.

Background and Motivation

The increased emphasis on team building in accounting education is largely being driven by the accounting profession. Accounting educators are charged by numerous professional bodies with instilling team-building skills in accounting students. The Institute of Management Accountants, Financial Executives Institute, the Institute of Internal Auditors, and the American Institute of Certified Public Accountants all emphasize the importance of team-building skills. In fact, the Institute of Management Accountants and Financial Executives Institute conducted a joint survey, *What Corporate America Wants in Entry-Level Accountants*, that revealed corporate America's preference for individuals with team-building skills over those without team-building skills (Siegel and Sorensen 1994).

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The Institute of Internal Auditors also emphasizes team-building skills. To prepare internal auditors for working in teams, the Certified Internal Auditor exam includes a section entitled, "Business Management Skills." Group dynamics (i.e., stages of group development, roles, norms, cohesiveness, and groupthink) and team building are two of the four topics covered in this section of the exam.

Similarly, the AICPA *Core Competency Framework for Entry into the Accounting Profession* (hereafter, the Framework) emphasizes the importance of team building for CPAs. The Framework promotes Personal, Functional, and Broad Business Perspective Competencies. In discussing a specific personal competency, *interaction*, the AICPA states: "Accounting professionals must be able to work with others to accomplish objectives. This requires them to act as valuable business partners within organizations and markets and work in teams to provide business solutions." Elements of this competency include: "Recogniz[ing] the value of working within diverse, cross-functional teams"; "Commit[ting] to achievement of common goals when working on a team"; "Accept[ing] suggestions and guidance of team leaders and other members"; and "Recogniz[ing] and accommodat[ing] the protocols and expectations of teams" (AICPA 2005).

Becoming educated and trained in team-building processes is no small endeavor, for it involves familiarity with a variety of disciplines with which accounting educators may not be well versed. In this paper we draw from the sociology, industrial psychology, and organizational behavior literature to provide practical guidance on team building for accounting educators. We begin by distinguishing between groups and teams, and then identifying and classifying the types of teams that often comprise student groups in accounting classes. We then provide specific guidelines for effective team building within the framework of the McGrath (1964) team-building model. Finally, we conclude by summarizing our findings.

DISTINGUISHING TEAMS AND GROUPS

The terms "team" and "group" are often used interchangeably by instructors. However, groups and teams are not the same thing (Katzenbach and Smith 1999; Greenberg 1996; Robbins 1997). Although we assign students to "group" projects in accounting education, it is the competency of *team building* that we wish to inculcate and nurture in our students to prepare them for successful careers in the accounting profession. Thus, it is instructive to distinguish between the terms *team* and *group*.

In the organizational behavior field, a commonly accepted definition of *team* is "a small number of people with complementary skills who are committed to a common purpose, performance goals, and approach for which they hold themselves mutually accountable" (Katzenbach and Smith 1999, 45). Meanwhile, *groups* are commonly defined as "a collection of two or more interacting individuals with a stable pattern of relationships between them who share common goals and who perceive themselves as being a group" (Greenberg 1996, 178).

Initially, these two definitions appear quite similar. However, Katzenbach and Smith (1999) identify three major characteristics of a team as follows: (1) commitment, (2) accountability, and (3) skills.[1]

First, "teams are not just any group working together" (Katzenbach 1999, 21). Teams depend on synergy among team members to collectively produce a final product that is more than the simple sum of the individual parts. Thus, teams are committed to achieving a specific goal through using a common approach that depends on the team members' collective efforts for success. To accomplish this goal, team members must learn to trust one another. Conversely, groups do not depend on synergy to attain their goal; rather, group members often work individually and then combine their individual efforts to form the final product or output. In this scenario, trust is not a critical input into the process.

Second, team members hold themselves mutually accountable for the quality of the final product. All team members are committed to the outcome and hold themselves individually accountable for the final product. Trust, again, is important here in that team members must trust that others in the team will work conscientiously and cooperatively to achieve the goal. In contrast, group members hold themselves accountable for their individual assignments within the project. As long as they believe they performed their individual parts competently, group members likely will not feel individually responsible if the final product is inferior.

Third, a team is comprised of individuals who bring complementary skills and competencies to the collective team talent pool, while groups have homogeneous skill levels relative to the task at hand. We see these definitions operationalized within the accounting profession. For example, audit teams are hierarchical in nature, consisting of staff auditors, seniors, managers, and partners, each bringing different skill levels and competencies to the team. Additionally, consulting teams are often made up of individuals with complementary skills, and who together bring a collective synergy to a particular problem. But, within a given accounting firm, it is common to refer to the "audit" group or the "tax" group. In this context, "group" refers to individuals who share a common interest in the functional area.

As is evident from this discussion, students assigned to complete an accounting "group" project might function as *either* a group *or* a team, depending largely on the instructor's design and administration of the project, as well as the process the students undertake to complete the project. For example, a research paper task, assigned as a group project and with no additional instruction on team building by the instructor, might be carried out as a *group* instead of a *team*. This outcome results when the individuals in the group simply carve up the assignment, each conducting his or her part of the research and writing the corresponding section of the paper. The final product consists of individual work, pieced together as one research paper. Unquestionably, such groups do not function as teams. Similarly, a spreadsheet or financial statement project may be divided up among group members and completed separately. The students may have little interaction with each other during the conduct of the project; they simply assemble their separate contributions into one final product and turn in the assignment. As in the research paper example,

[1] The three distinctions drawn by Katzenbach and Smith (1999) are similar to aspects of cooperative learning theory. For example, cooperative learning emphasizes interdependence of team members, individual accountability and personal responsibility, development of social skills, and fostering of effective group processes to ensure success. We acknowledge the significant body of research in cooperative learning (e.g., Johnson et al. 1991; Ravenscroft et al. 1999; Apostolou et al. 2001; Cottell and Millis 1992, 1993; Feichtner and Davis 1992); however, the purpose of this paper is to draw from the social psychology and organizational behavior literature to bring a different perspective to team building.

this group did not function as a team, since the successful completion of the project did not depend on individuals establishing trust, synergy, or mutual accountability among themselves. As is evident from these examples, while all teams are groups, not all groups function as teams (Katzenbach and Smith 1999).

To promote team-building skills within student project teams, accounting educators must focus on three essential objectives: (1) helping students form trust and commitment to a common purpose within their teams; (2) fostering mutual accountability among team members; and (3) forming diverse teams. Before providing guidelines on how to accomplish these objectives, we present a taxonomy for identifying student project teams.

Types of Groups and Teams

Groups can be categorized as formal or informal groups. We focus herein on formal groups. Greenberg (1996) divides formal groups into command groups and task groups. Command groups operate in a hierarchical, top-down mode; that is, a group headed by a department supervisor who directs the group is considered a command group. Meanwhile, a task group is temporary in nature and is assigned to complete a finite, well-defined task. In accounting education, a primary goal in assigning group projects is to instill team-building skills. However, this goal means students must learn to work synergistically, be interdependent, and hold each other mutually accountable for the quality of the final outcome.

Teams can be divided into problem-solving teams, self-managed work teams, and cross-functional teams (Robbins 1997). Problem-solving teams are characterized by individuals at the same level within an organization, brainstorming and working together to suggest solutions for a specified problem. Quality circles, made popular in the corporate world in the 1980s, are an example of problem-solving teams (Robbins 1997). However, problem-solving teams are not generally given the autonomy to implement their suggestions. Some organizations today have reengineered the work structure to form self-managed work teams. Such teams replace the typical supervisor-subordinate model and function autonomously to suggest and implement solutions. Finally, cross-functional teams consist of individuals who bring special skills or abilities to the team. In the accounting profession, this type of team is evidenced by a consulting project where accountants of differing specialties are assigned to the project, each contributing unique backgrounds, talents, and abilities.

Within academia, the accounting instructor usually intends for student groups to function as problem-solving teams, since team members have both a shared goal and mutual accountability to each other and the instructor to submit a satisfactory end product. Figure 1 depicts the categories of groups and teams, and illustrates where student project groups may be classified in relationship to these categories.

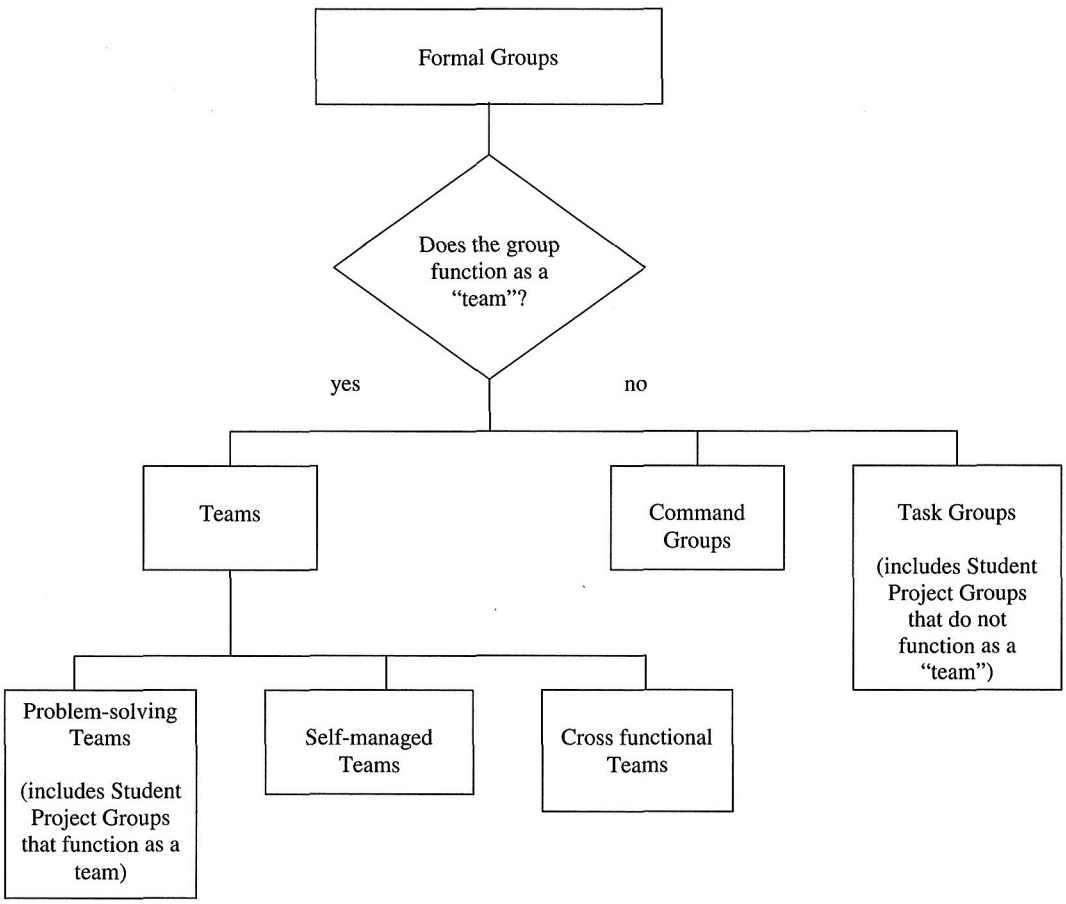
We next draw from the seminal theoretical model of group effectiveness, McGrath (1964), to provide guidelines for effective team building.

STRATEGIES FOR EFFECTIVE TEAM BUILDING

The McGrath (1964) model (hereafter, the McGrath model) of group effectiveness provides a convenient framework to discuss the myriad issues involved in administering student team projects.[2] This section provides practical application of the McGrath model

[2] Other theories of group development include Moreland and Levine's (1982) model and Gersick's (1988) Punctuated Equilibrium Model. Additionally, McGrath's (1964) model has been refined (see Gladstein 1984; Hackman 1987; Shea and Guzzo 1987). We have omitted these models from the discussion for brevity. However, for the interested reader, we have provided complete references in the References section.

FIGURE 1
Classification Scheme for Groups and Teams



Source: Adapted from Greenberg (1996, 181) and Robbins (1997).

to formulate guidelines for accounting instructors relative to the input, process, and output stages of team effectiveness. These guidelines are general enough to apply to any project an accounting student team might be assigned where a major objective is to instill team-building skills and behaviors.

McGrath's Input-Process-Output Model

The major theoretical approach that has dominated team research is the input-process-output model (Guzzo and Shea 1992). This model, first articulated by J. E. McGrath in 1964, identifies the input stage as containing factors related to individuals, the group as a whole, and the environment. McGrath's premise is that maximizing the quality of inputs leads to both a higher quality process and higher quality output. Individual level factors include the skills (attitudes and personality characteristics) of the group members. Group-level factors include the structure, cohesiveness, and size of the group. Environment-level

factors include task characteristics, reward structure, and environmental stress. In the process stage, the effectiveness of group interaction is characterized by how the group performs its work and handles conflict. Finally, the output stage identifies criteria for evaluating the group's performance outputs, including the quality of the product, how quickly the group was able to reach a solution, and the number of errors in the final product. Other outcomes measured in the output stage include how satisfied group members are with their performance, how cohesive the group is at the end, and whether attitudes were changed for the better. Figure 2 shows the McGrath model of group effectiveness.

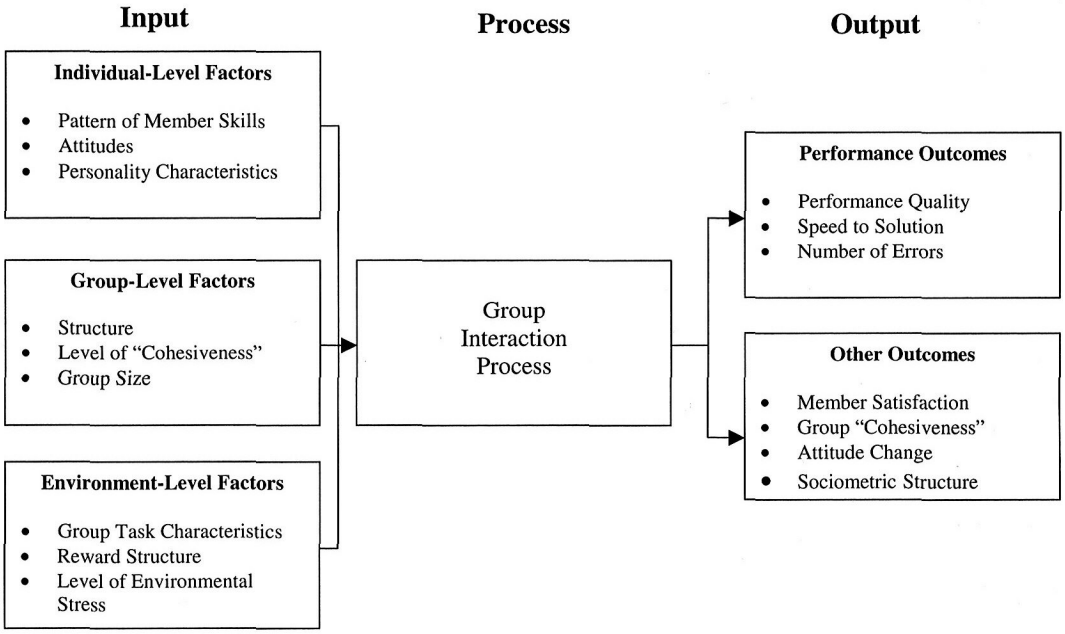
Input Stage

In the input stage of the McGrath model, the emphasis is on quality of various inputs into the team. These inputs include factors related to individuals, groups, and the environment. In this section we will discuss each type of input in turn.

Individual-Level Factors

Member skills and abilities. Most models of team building identify skills and/or ability as desirable attributes of a good team member. For example, Katzenbach and Smith (1999) identify three skill types important to team building: problem solving, technical, and interpersonal. The McGrath model specifies "pattern of member skill" as a key input to the team-building process. Similarly, McClough and Rogelberg (2003, 56) list the most important input factors as "member expertise, attributes, abilities, and experience."

FIGURE 2
McGrath's Model of Group Effectiveness



Source: Jex (2002, 126).

While these researchers conclude that particular skills and abilities are desirable traits in *corporate* teams, identifying appropriate skills and abilities in students raises a key question. One solution is to turn to commercial products aimed at identifying individual skills and knowledge necessary to succeed in a team environment. For example, the Teamwork Knowledge, Skills, and Ability (KSA) test (Stevens and Campion 1994) provides one such tool for selecting employees for team-based organizations. Although the KSA was designed for the corporate environment, McClough and Rogelberg (2003) find that the instrument is valid for use in student teams.

For some instructors, however, it may be impractical or too expensive to administer a commercial test to determine technical expertise and innate ability.[3] Instead, the instructor can use student grade point average (GPA) as a proxy for technical competence and overall ability to disperse high-achieving students among groups. Support for GPA as a proxy is provided by Danko et al. (1992), who identify GPA as the most significant predictor of grades in Intermediate Accounting I. Grudnitski (1997) also found that overall GPA can be used as a suitable tool for forming groups the first day of class to achieve the desired degree of homogeneity or heterogeneity. Additionally, the instructor can survey students to identify a specific technical competency in order to disperse highly proficient students evenly among groups. For example, if Excel© skills are critical to project success and not everyone is equally proficient, then the instructor might ask students to identify their proficiency levels in order to evenly disperse students more proficient in Excel© among the groups.

Guideline 1: The instructor should disperse high-achieving and/or highly competent students evenly among groups.

Personality characteristics and attitudes. Personality characteristics include attitudes, traits, and behavioral temperament inherent in individuals. Personality traits such as agreeableness and conscientiousness have been shown to correlate highly with effectiveness (Barrick and Mount 1991). Additionally, attitudes of group members have been shown to moderate group effectiveness. In particular, an individual's like or dislike for working in groups has been shown to relate to group effectiveness. Campion et al. (1993) found that "where the average level of preference for group work was low, groups performed lower on several performance criteria" (as cited in Jex 2002, 337). This finding has practical significance for the accounting classroom in that the instructor can measure an individual student's preference for group work via survey and then ensure that groups are not overly represented by students with a low preference for group work.

Robbins (1997) agrees that individuals should be selected for teams based on personality and preferences, as well as to promote diversity. Team role theory is one way to determine personalities and preferences. The two primary team models in this area are the Team Management Systems (TMS) model (Margerison and McCann 1990), and the Belbin (1981, 1993) model. Rushmer (1996, 20) states, "in this area, [these] two dominant schemes tower above all others." Both team models are based on team role theory, which suggests that a balance of complementary personalities (e.g., "roles") will lead to better team performance.

Team role theory has been used primarily in the context of corporate teams, which tend to be larger than student teams. Given the small size of student teams, it is not practical to

[3] The Teamwork KSA test is available from Ramsay Corporation at http://www.ramsaycorp.com/products/teamworkksa.asp for $13 per copy.

attempt to apply either the TMS or Belbin model to the academic context. Additionally, one may not wish to incur the time and cost of commercial instruments used by both models. However, an instructor can easily determine a student's preference for working in groups, as discussed previously. This information could then be used to assign students to teams.

Guideline 2: The instructor should evenly disperse students who do not enjoy working in teams among the teams.

Instructors can also rely on a sociometric[4] approach, where the instructor assigns students to teams, but considers students' preferences in doing so. Cockriel (2001, 393–394) explains this approach, whereby two questions are asked prior to group assignment: (1) With whom would you most like to study? (2) With whom would you prefer not to study? Groups are then formed by "every student having at least one person in the group that he chose to have in his study group," and by dispersing high-achieving students among the groups.

This idea has merit for accounting student project teams, since it is not uncommon for individuals to have prior negative experience in group work with other accounting students (McConnell and Sasse 1999). An instructor may be approached by a student who says, "I worked with Susie last semester on a group project and the experience was not good. I prefer not to be placed in a group with Susie in this class." Cockriel's (2001) method allows *a priori* addressing of pre-existing interpersonal conflicts unknown to the instructor. This discussion leads us to our third guideline:

Guideline 3: Instructors should assign students to teams, allowing students some input in this decision-making process.

Group-Level Factors

A second set of input factors relates to characteristics of the groups themselves, including group structure, cohesiveness, and size. Issues such as whether to allow students to self-organize or whether the instructor should organize the groups relate to structure, as do issues of diversity and leadership. The level of cohesiveness among group members is also a group-level factor and relates to establishing norms within the groups. Finally, group size is an important group-level factor to consider.

Structure. Some instructors allow students to self-organize. For example, Speck (2002) describes his method of giving students ten minutes to organize themselves into teams, and then leaving the room. Upon returning, the students provide him with a list of team members. Koppenhaver and Shrader (2003, 4) disagree with allowing students to self-organize, noting that allowing students to self-organize or using simple random assignment, while commonly used, both "run the risk of creating a work team with a skill-set too narrow to address complex problems." Colbeck et al. (2000) also studied the issue of whether student-organized or instructor-organized teams were more effective. They conducted focus groups of 65 engineering students who had participated in group projects during their college careers. Colbeck et al. (2000) noted that when students were allowed to self-organize, they consistently chose to work with the same teammates in course after course, which reduced

[4] "Sociometrics" is "[t]he quantitative study of interpersonal relationships in populations, especially the study and measurement of preferences" (http://www.dictionary.com).

their opportunities to work with diverse team members. The authors conclude that instructors should assign students to groups rather than allow students to self-select into groups so that students may experience working in more diverse groups. Johnson et al. (1991) agree, noting that having instructors form the groups will lead to a more heterogeneous mix of students.

Diversity is also included as a group-level trait. The globalization of business means success often depends on the ability to communicate and work effectively within a variety of cultures, each of which bring its own norms and biases. Learning to understand and respect cultural differences is integral to success in an increasingly global business community. However, a team high in cross-cultural composition may experience conflict stemming from these differences. To facilitate cross-cultural expectations and promote group cohesiveness, the instructor can lead a discussion of differences and encourage students to work together as equals. Additionally, Heimer and Vince (1998) advocate involving every team member within a cross-cultural team. *Involvement* here does not mean there is pressure for each group member to be equally extroverted; instead, each member should have specific project tasks that promote interaction among team members.

Instructors should encourage an open dialogue with respect to differences in cultural patterns and behaviors (Heimer and Vince 1998). Terenzini et al. (2001) find that classroom diversity is related to students' self-reported development of their group skills. However, in a work setting, "[d]iversity can be a double-edged sword, increasing the opportunity for creativity as well as the likelihood that group members will be dissatisfied and fail to identify with the group" (Milliken and Martins 1996). Verkuyten et al. (1993) study workers in The Netherlands and find that individuals who were not Dutch were less satisfied with their jobs than were Dutch employees. However, their satisfaction level increased the more time they spent with colleagues of similar ethnic backgrounds. Pelled et al. (1999) find that emotional conflict in work groups is increased by dissimilarity in ethnicity. The authors suggest this result is because ethnicity attributes "encourage heated interactions in work groups." Applied to an academic context, this research suggests that clustering students from the same ethnic background may increase satisfaction in team-building assignments.

Gender, too, must be considered an aspect of diversity. Statistics show that over the past quarter century, women have increasingly entered the workforce. In 2004, 56 percent of women were working outside the home, compared with 40.8 percent in 1970 (Bureau of Labor Statistics 2005). With this increase comes the need for men and women to learn to work together and communicate effectively. Markel (1998) discusses the different ways men and women communicate. According to Markel, men are typically more focused on completing the task, while women are more focused on group relationships (Speck 2002, 54–55). Additionally, differences in role expectations can lead to stereotyping individuals within the group, such as expecting a female to keep minutes of group meetings and expecting a male to lead the group. Metcalfe and Linstead (2003, 115) indicate that even the literature on team building assures an inherent "masculinity" of roles, and that "team players and leaders are always assumed to be male." Thus, Speck (2002) advocates balancing the ratio of men and women within a group as much as possible. This discussion of diversity leads to our next guideline.

Guideline 4: Instructors should seek to form diverse teams, balancing gender and culture where possible.

The last issue of structure relates to team leadership models. The instructor must consider whether to assign a formal team leader for each group. Wysocki (2002) describes five

team leadership models: (1) hierarchical, (2) team leader, (3) team coordinator, (4) shared leadership, and (5) self-managed. Teams within organizations are often structured hierarchically, with a formal leader who is responsible for directing the team and often evaluating the final work of team members. The team leader is not an official working part of the team. The team members do not interact with each other; rather, they interact with the leader. In the team leader model, the team members again interact only with the team leader, who represents the interests of the team to outside parties. Unlike the hierarchical model, the team leader is an equal, working member of the team. In the team coordinator model, the team members interact with each other to accomplish their goal, with the team coordinator an equal, working member of the team. In the shared leadership model, there is no single team leader or coordinator. Instead, team members alternate the leadership role according to the immediate task at hand and who in the team has the most skill in completing that task. The manager does not dictate how the team accomplishes its task, but instead defines the boundaries and expectations for the team. Finally, self-managed teams have autonomy in how they complete their assigned task. They are generally empowered to select and remove team members as needed. In this scenario, the "manager" serves as a resource to the team at the team's request.

In the academic setting, teams typically do not have a team leader. Rather, the model is that of shared leadership. Under this model, no one individual directs the team's efforts. Each individual is responsible for keeping the team on track, managing conflict, and producing a quality output. The instructor serves as the manager and defines the project, the deliverables, the timetable, and the outcome assessment criteria by which students will be assigned a final grade. The students, then, are responsible for completing the project, consulting with the instructor for clarification and resolution of conflict when needed.

Although the shared leadership model is commonly used in student projects, the team coordinator model provides significant advantages. For example, many group projects are designed to be completed over an entire semester. The team would have an identified leader who would be responsible for setting milestones for the team to accomplish along the way. This is particularly important in a semester-long project where the instructor has not specified interim deliverables. A team coordinator would be helpful in providing structure for the team such as establishing meeting times and setting milestones and deadlines. The team coordinator can also keep everyone on track and focused, and ensure that each individual's work is accurate and complete. Finally, the team coordinator could also interact with the instructor and represent the interests of the team in meetings with the instructor. Cottell and Millis (1992) suggest that one of the defined roles that works well in accounting courses includes a team coordinator.

Guideline 5: Each team should appoint a team coordinator who is responsible for keeping the team on track and focused during the project and for interacting with the instructor.

Level of cohesiveness. Norms, "explicit or implicit standards that govern behavior" (Jex 2002, 302), are important because they establish acceptable behavior within the group and, thus, promote cohesiveness within the group. While behavioral norms usually develop over time, a group can choose to "shortcut" that process by explicating norms (Hackman 1992). Establishing explicit norms is healthy for a student project team, as it will allow students to determine from the outset what is appropriate and inappropriate for individual behavior.

The Team Contract

One strategy for establishing norms is for the instructor to require a team contract at the beginning of the semester. The team contract is a highly effective psychological tool for accomplishing this goal (Greenberg 1996).[5] It also assists in mediating conflict or shirking down the road. Teams find writing contracts a useful way to set both prescriptive norms—what the team agrees it will do—and proscriptive norms—what the team agrees it will not do (Greenberg 1996). The team contract can also help the team identify the major milestones of the project and establish a timetable for accomplishing those milestones. This strategy helps the team break the project into smaller, less-intimidating steps and facilitates continual progress (Bryant 2001).[6] Figure 3 provides a sample team contract.

Each team must meet and determine its norms and sign the contract, a copy of which is then forwarded to the instructor. Typical norms include being on time for team meetings, attending all team meetings, completing individual assignments within the agreed-upon time frame, and respecting all points of view.

Guideline 6: The instructor should require each team to write and sign a team contract during the first team meeting.

Size. The optimal size of the team is determined by the type of team and purpose for the team (Katzenbach and Smith 1999; Speck 2002). In the corporate world, teams of no more than 12 are advocated (Robbins 1997; Lencioni 2005), though sometimes teams of up to 25 are used in practice (Katzenbach and Smith 1999). For student teams, the optimal size is four to seven members (Cockriel 2001), though Bosley and Jacobs (1992) advocate a group of three for collaborative writing assignments (Speck 2002).

The size of the team is important because research has shown that the larger the size of the team, the greater the tendency to engage in "social loafing." Explained by social impact theory (Latane and Nida 1980), social loafing occurs in large groups because there are more people to share the workload; hence, group members do not feel as individually accountable (Katzenbach and Smith 2001, 89). The larger the team, the more difficult it is for a single individual's efforts to be monitored and evaluated. Individual effort is greatest when it is singly evaluated, while greater numbers of contributing individuals lead to less effort individually. Figure 4 illustrates the social loafing effect.

This leads us to Guideline 7:

Guideline 7: Instructors should place between four and seven students in a team, favoring smaller teams when possible, to promote individual accountability and to lessen social loafing.

Environment-Level Factors

Group task characteristics. The most important task characteristic is whether the task is suitable to be completed by a group, or whether the task is better completed on an individual basis (Jex 2002). For example, a highly structured task such as completing a questionnaire that does not depend on synergy and complementary skills of group members

[5] Katzenbach and Smith (2001) promote the idea of a team charter, which is essentially the same as the team contract.

[6] Project management software and tools such as GANTT charts can assist a team in developing its project plan. For a comprehensive discussion of project management techniques in student projects, see Bryant (2001).

FIGURE 3
Example Initiative Team Contract

Purpose: Complete project for ACG 3XXX
Team Members: John, Susie, Tom, and Marie
Final Due Date: December 5, 2006

Key Challenges	How to Overcome
1. Differing schedules	1. Meet after class every week
2. Technical difficulty of the project	2. Break the project into milestones

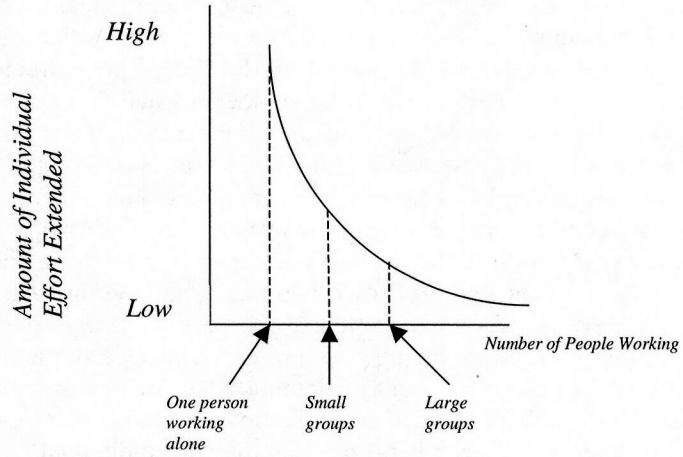
Milestone	Responsible Party	Due Date
1. Gain an understanding of the project	All	September 5, 2006
2. Prepare team contract and forward signed copy to professor.	All	September 8, 2006
3. Draft Entity Relationship Diagram in Excel	John and Susie	September 15, 2006
4. Prepare tables in Access and import data	Susie and Tom	October 1, 2006
5. Complete queries	Marie, John, Susie	November 1, 2006
6. Complete report	Tom and Marie	November 15, 2006
7. Review final project and prepare to turn in	All	December 1, 2006

Team Norms
1. We agree to give all team members 24 hours notice if we cannot attend a scheduled team meeting.
2. We agree to listen to all ideas presented at team meetings with an open mind.
3. We agree to meet all deadlines established in the team contract.
4. We agree to ask for help from team members when needed.
5. We agree to individually and collectively perform to the best of our ability.
6. We agree to review each others' work and provide feedback as needed.

Signed:

_____
_____
_____
_____

FIGURE 4
The Social Loafing Effect



Source: Greenberg (1996, 189).

to complete would not be a good candidate for a team project. On the other hand, a highly unstructured task that requires interdependency of team members for successful completion would be a good candidate for a team project.

Reward structure. Outcome assessment can be one of the most challenging aspects of group projects. Two models for assessing group performance are: (1) group-only and (2) mixed-incentive model. In the group-only model, a single grade is assigned to the entire group. Speck (2002, 59) argues in favor of the group-only model for a collaborative writing assignment, for "[t]he quality of group interaction and the quality of the document the group produces are inextricably bound together." Further, Colbeck et al. (2000, 62) notes that "[r]eward interdependence develops when students accept that the completion of the project and the receipt of rewards, such as learning the design process or receiving a 'good' grade, depends on the performance of everyone in the group."

An alternative to the group-only grading scheme is the mixed-incentive grading scheme, wherein a team member's individual effort and output is evaluated and combined with a group grade. Under this evaluation scheme, each member of the team could theoretically receive a different grade on the final product. Ravenscroft et al. (1995) demonstrate that a grading scheme weighting the individual score at 70 percent and the group average at 30 percent of the grade resulted in better performance than an individual-only grading system. As previously mentioned, such a mixed reward system can be effective at reducing social loafing and shirking. Michaelsen (1982) also advocates a mixed-incentive scheme comprised of measures of "individual performance, team performance, and individual contribution to the team (measured using a peer evaluation form)" (Lancaster and Strand 2001, 557).

McConnell and Sasse (1999) present an alternative that also allows students to evaluate each other in a manner that directly affects grades. Under this method, each student allocates a fixed number of points (100 times the number of team members) to each individual, including himself. A team member's grade is then calculated as the product of the group

score times the average points the team assigned that individual. The authors report that they have used this method with success for a number of years.

A final alternative is to calculate an initial grade for the team and then review peer evaluations for any outlying group behavior and adjust an individual's grade accordingly (and subjectively). For example, a team may identify an individual as having missed several meetings or having failed to meet an internal group deadline. The instructor then uses his or her discretion to lower the individual's grade as the instructor's experience deems appropriate. Speck (2002) discusses this method as his preferred choice. Because research consistently shows that the ability to assess individual effort is a strong deterrent to social loafing, we advocate any method that factors in an individual component.

Within the group, members will find it easy to evaluate the quality of a group member's performance over the completion of the project. For the instructor, it may be more difficult. The group typically turns in one end product to be graded, and the instructor will not know which student was responsible for each section of the project. One strategy the instructor can employ is to require each group member to turn in a one-page summary evaluating his or her own performance in the group, and explaining what his or her contribution was to the success of the group. Additionally, the instructor can require each group member to assign a percent to other group members, representing the individual's view of relative contributions. Such peer evaluation has been shown to be an effective motivator of team motivation (Koppenhaver and Shrader 2003). See Figure 5 for an example of a peer evaluation.

Guideline 8: The instructor should calculate a student's grade based on a mixed-incentive grading scheme.

Level of environmental stress. Environmental stress may stem from the criticality of the work performed or time pressure (Jex 2002). Students completing real-world projects where the end-user intends to actually use the students' work can feel enormous pressure regarding the quality of their work (Bryant 2001). In this context, the instructor must be sure to coach the teams appropriately. Unfortunately, many instructors assign a group project and then seem to have a philosophy of "Go forth and team build!" with no further intervention or coaching. Feichtner and Davis (1992) note that students feel particular frustration when instructors shirk responsibility for helping groups (Colbeck et al. 2000).

Hackman and Wageman (2005) propose a theory of team coaching for either team leaders or fellow group members that can be applied to our discussion. In our context, we propose that the instructor should assume the role of team coach. The timing of the intervention is critical. At the beginning of the project, the coach's responsibility is to help a group "have a good launch" (Hackman and Wageman 2005, 275). The coach should establish clear objectives for what the team is to accomplish and clear standards by which the team's performance will be evaluated, including deadlines and penalties for late assignments. The coach should also discuss other interpersonal and task issues that will reduce team members' uncertainty and prepare them for work.

As part of explaining the deliverables in a project, the instructor should devote significant time to the discussion of conflict. While conflict is uncomfortable for most people, it can be managed productively so the issue is resolved and the team is able to move on. Instructors should convey the importance of critiquing the merit of an idea, as opposed to criticizing a person. Comments such as "That is a stupid idea" will lead a team member to feel personally attacked. A better response, which critiques the merit of an idea, is: "The concern I have about this approach is that it does not address one important aspect of the

FIGURE 5
Group Project Peer Evaluation

Your Name _____

Group # _____

Instructions: Evaluate each group member's (including your own) contribution on each of the group projects. For example, if everyone contributed equally, you would put 25% for each person in the contribution percent space. Be honest in your evaluations. Include any written comments I need to know in assigning grades. Evaluations are confidential. However, in the event a student's grade is lowered on the project as a result of peer evaluations, I will share the group's feelings with the student whose grade was lowered.

1. _____ Contribution _____ %

2. _____ Contribution _____ %

3. _____ Contribution _____ %

4. _____ Contribution _____ %

Total 100%

Comments: _____

problem" (Wysocki 2002, 126). It is helpful to the students if the instructor is clear at the outset as to his or her policy on mediating conflict. The instructor can choose to intervene and mediate the conflict at the request of the team, or the instructor can have a policy of no intervention. Under intervention and mediation, an instructor may allow the team to request mediation at any time during the project. McConnell and Sasse (1999, 50) advocate

a general rule of never meeting with only a part of the team, as "issues are rarely one-sided." The advantage of a policy of intervention and mediation is that it provides timely guidance to an otherwise frustrated team as to how to effectively address a problem.

The "no intervention" policy is based on the assumption that it can be productive for teams to struggle through conflict without help from the instructor. Katzenbach and Smith (1999, 164) believe that "real teams thrive on obstacles. However, it is important for [an instructor] to recognize that a team may be stuck beyond its collective capability and in this case, the [instructor] must intervene."[7]

At the midpoint of the project, the coach should initiate a second intervention relating to strategy for completing the project. Hackman and Wageman (2005) discuss team readiness and make the case that the team must have had time to interact and perform some work together before they are ready to discuss strategy. In our context, this translates to a meeting of the instructor with the team to discuss progress the team is or is not making. Through this action, the instructor demonstrates that the team is not completely on its own—a comforting thought to groups that may be experiencing serious dysfunction. If the instructor's class is too large to meet one-on-one with each team, we have found the tool shown in Figure 6 to be effective in coaching the team at the project midpoint. Individual teams can request a meeting with the instructor when necessary.

Finally, the endpoint of the project provides an educational opportunity to coach the team to think about what has been learned through the process. "Absent coaching interventions, team members are not likely to take initiatives after the work has been completed to capture and internalize the lessons that could be learned from their experiences" (Hackman and Wageman 2005, 278). This debriefing can be done formally, as a team assignment, or informally, where the instructor requests each person in the class to write a short essay on what he or she learned from the team-building project. In particular, students should be encouraged to reflect on reasons why the team succeeded or failed to meet its objectives. Debriefing on the team process helps students see the entire process and discover for themselves ways in which they grew emotionally, professionally, and technically through the project.

Guideline 9: The instructor should assume the role of team coach, providing specific guidance at the beginning, midpoint, and end of the project.

Process Stage

During the process stage, the team seeks to interact efficiently and effectively. The primary obstacle at this stage involves interpersonal conflict, which all teams experience as a natural outgrowth of working closely together over an extended period of time. Conflict stems from many of the issues encountered during the input stage. For example, the larger the team, the more personalities and schedules that must be accommodated. The stronger the personalities involved, the more conflict is likely to be experienced. The process stage involves resolving conflict and overcoming obstacles to success.

Conflict can be both positive and negative. Conflict can be positive in the sense that it highlights alternative decision paths and actions and avoids groupthink (Greenberg 1996). Groupthink occurs when the group has developed a high level of cohesiveness and does not want to damage the cohesive spirit of the group (Greenberg 1996). Thus, groupthink can lead to less-than-optimal decision paths simply in the interest of avoiding conflict.

[7] Katzenbach and Smith (2001) use the word "manager." We have replaced this word with "instructor" for our discussion.

Conflict can be bad when it causes the team to lose focus on completing the task effectively and efficiently, or causes the team to degenerate into dysfunctional behavior. Lencioni (2005) explains how dysfunctional behavior can adversely affect a team and lead to conflict.

Dysfunctions during Process

Lencioni (2005) asserts that there are five dysfunctions of a team that lead to conflict: (1) absence of trust, (2) fear of conflict, (3) lack of commitment, (4) avoidance of accountability, and (5) inattention to results. Table 1 describes each of these dysfunctions. For each of the dysfunctions, Lencioni describes team-building exercises to avoid these five pitfalls.

To build trust. Lencioni (2005) identifies building trust as one of the main objectives of team building. He defines "trust" in terms of vulnerability—that is, being open and empathetic toward team members. To establish trust, Lencioni (2005, 19) advocates an exercise of sharing personal histories during the first team meeting. The exercise consists of three questions that each team member answers verbally at the first team meeting: (1) Where did you grow up? (2) How many kids were there in your family? (3) What was the most difficult or important challenge of your childhood? Sharing this information does not

TABLE 1
The Five Dysfunctions of a Team

Dysfunction	Healthy Behavior
1. Absence of Trust	Members of great teams trust one another on a fundamental, emotional level, and they are comfortable being vulnerable with each other about their weaknesses, mistakes, fears, and behaviors. They get to a point where they can be completely open with one another, without filters.
2. Fear of Conflict	Teams that trust one another are not afraid to engage in passionate dialogue around issues and decisions that are key to the organization's success. They do not hesitate to disagree with, challenge, and question one another, all in the spirit of finding the best answers, discovering the truth, and making great decisions.
3. Lack of Commitment	Teams that engage in unfiltered conflict are able to achieve genuine buy-in around important decisions, even when various members of the team initially disagree. That's because they ensure that all opinions and ideas are put on the table and considered, giving confidence to team members that no stone has been left unturned.
4. Avoidance of Accountability	Teams that commit to decisions and standards of performance do not hesitate to hold one another accountable for adhering to those decisions and standards. What is more, they don't rely on the team leader as the primary source of accountability; they go directly to their peers.
5. Inattention to Results	Teams that trust one another, engage in conflict, commit to decisions, and hold one another accountable are very likely to set aside their individual needs and agendas and focus almost exclusively on what is best for the team. They do not give in to temptation to place their departments, career aspirations, or ego-driven status ahead of the collective results that define team success.

Source: Lencioni (2005, 7).

automatically ensure that trust is established; rather it is the beginning of building trust within the team, which must continue to nurture that trust.

To use conflict constructively. Lencioni (2005) describes a similar exercise for mastering conflict. As part of the trust exercise described above, team members describe how they feel about conflict, much of which will stem from their family and cultural backgrounds. A team member also describes how he or she typically deals with conflict. This exercise both increases trust in the team and identifies the collective team outlook on conflict. Additionally, the team can include a provision in their team contract that will describe acceptable and unacceptable behavior regarding conflict.

To achieve commitment. Achieving commitment is also essential to effective team building. Lencioni (2005, 51) defines commitment from individuals who do not naturally agree as "the ability to defy a lack of consensus." Commitment here means the team is able to discuss alternatives, disagree, and ultimately still commit to the final decision, even if it does not represent his or her individual preference. It is important in this context to ensure that the team has clarity on what it has agreed to. To do so, a commitment clarification exercise can be used at the end of a meeting, whereby the team leader (or team member if there is no formal leader) calls the following question: "What exactly have we decided here today?" (Lencioni 2005, 54). This exercise allows the team to identify and clarify what the team has agreed to. The exercise also prevents later confusion about future tasks.

To promote accountability. We previously identified mutual accountability as a necessary component of a successful team. Lencioni (2005, 61) defines accountability as "the willingness of team members to remind one another when they are not living up to the performance standards of the group." Lencioni (2005, 65) provides a simple tool for promoting mutual accountability. The exercise should be used after the team has established a foundation of trust, and has worked together at least two months. Each team member writes down answers to the following two questions about all team members except themselves: (1) "What is the single most important behavioral characteristic or quality demonstrated by this person that contributes to the strength of our team?" (2) "What is the single most important behavioral characteristic or quality demonstrated by this person that can sometimes derail the team?" The team leader stands first and each team member answers the two questions. Each team member also offers constructive feedback to the leader. The leader is then allowed a response, which is generally an acknowledgement of the comments made. The exercise continues with the next team member. After the exercise is over, team members immediately email their responses to the team leader. At a designated time in the future, the team members review the initial comments and must discuss whether they have improved areas where the team identified improvement was needed. Thus, the team members are accountable for their behaviors and showing improvement where needed.

A second accountability exercise is shown in Figure 6. We designed this exercise for students after their team has had time to work together and has received some interim evaluation by the instructor. The exercise is particularly effective in that each individual must evaluate him- or herself individually and then share that evaluation with team members. This reflection provides an opportunity for team members to point out any unacceptable behavior in a team member and facilitates honest communication within the team.

To focus on results. Last, successful teams must focus on results. Lencioni (2005) describes a team "scoreboard" as a tool for helping a team to focus on the metrics the team will use to define success. For a team project, a team can identify (1) what grade they want to receive on the project, and (2) the timeline and milestones for completing the

FIGURE 6
Group Team-Building Assignment

Step 1: Each group must have a mandatory group meeting in the next week. Prior to your mandatory group meeting, complete the following questions regarding your *individual* participation in your group process.

1. I would rate my contribution to the project so far as:
   ☐ Poor ☐ Fair ☐ Good ☐ Excellent

2. I would rate the contribution of the other members of my group as:
   ☐ Poor ☐ Fair ☐ Good ☐ Excellent

3. Regarding our group's grade on deliverable 1, I am:
   ☐ Satisfied ☐ Not Satisfied

4. I have attended all scheduled group meetings
   ☐ Yes ☐ No

5. I have been on time for all group meetings
   ☐ Yes ☐ No

6. My team members have been able to count on me to do anything that was my responsibility.
   ☐ Yes ☐ No

7. I believe I need to improve in the following ways:
   _____
   _____

Step 2: Bring the form you completed above to the mandatory group meeting. Remember that the mandatory group meeting must be face-to-face and must take place within the next week. At the group meeting, go around the room and take turns sharing your answers to Step 1 above. Then, as a group, answer the following questions.

1. Our group is on the right track for success.

   ☐ Yes ☐ No

2. Our group has agreed that we will work on the following items:
   _____
   _____

Step 3: Write a short (2–3 paragraphs) memo to me summarizing Step 2. Turn this memo in to me the week after your mandatory group meeting.

project. Such a project plan can help the team identify if it is on track and achieving its goals. We note that this is essentially equivalent to the team contract previously discussed.

> **Guideline 10:** The instructor should incorporate team-building exercises that the team will complete at various times during the semester to build trust among team members, to help them master conflict, achieve commitment and mutual accountability, and focus on high-quality results.[8]

Output Stage

The final stage of the McGrath model is *output*, which includes measuring team effectiveness. McGrath models effectiveness as two factors: (1) performance outcomes and (2) other outcomes. We next discuss these two output factors.

Performance Outcomes

According to McGrath (1964), performance outcomes are extrinsic factors, including the quality, speed, and number of errors in the outcome. From an academic standpoint, this translates into:

(1) How professional-looking is the final product? (Quality)
(2) Is the project turned in on time? (Speed)
(3) How accurate is the final product compared with the model solution? (Accuracy)

Professionalism. In a collaborative writing assignment, Speck (2002) notes the difference between first-draft writing and presentation copy. Students, however, may not inherently perceive the difference. It is often up to the instructor to instill professional values in students. In discussing professionalism with students, we encourage students to ask the following question to determine whether their final product is "professional": "Would you be proud to give this product to a client in this form?" The professional accountant provides a high standard of look and feel of the final product. Of course, the final product must also be accurate, but instilling professionalism in students in the performance of team projects is essential to prepare them for the level of professionalism expected in the accounting profession. Peer review by team members is also essential, not only to ensure a quality product, but also to reinforce interdependence and mutual accountability essential to team building.

Timeliness. Quality and timeliness are often interrelated (Speck 2002). When students wait until the last possible minute to complete a project, the quality of the work is likely to suffer. Both issues are also related to work ethic. Instructors have a golden opportunity to impart the values of professionalism and work ethic through the use of student project teams. After all, the chief goal of assigning team-building projects is to assist students in learning what will be expected of them in the accounting profession. Producing quality work and turning in assignments on time are critical professional values. The instructor must do his or her part by establishing clear deadlines for all deliverables of the project.

Accuracy. In grading the accuracy of the project, it is important to establish *a priori* criteria for assigning grades and to make such criteria transparent to the student. This is most effectively done through use of a grading rubric, a scoring guide that establishes criteria and how points will be allocated (Speck 2002). Rubrics clarify expectations, provide

[8] Katzenbach and Smith's (2001) *The Discipline of Teams* contains a wealth of exercises designed to build strong teams.

parameters, and offer guidance both to students and to teachers evaluating students (Burch 1997). Dudley (2001) argues that "assessment calls for the application of a set of standards embodied in a rubric and compares the achievement of students to these standards. This comparison assessment should be accurate, timely, and practical in terms of time and energy required." The particular criteria used and weighting scheme depend on the task. The students may or may not be given the grading rubric ahead of time (Speck 2002). However, Burch (1997) suggests that rubrics should be given to students ahead of time and rubrics should explicitly state the criteria for evaluation. Holcomb and Ruffer (2000) discuss use of a rubric in a term-long statistics project and suggest that instructors discuss the grading rubric in detail when assigning the first project to students. The rubric can include points for professionalism and timeliness, as well as accuracy. A possible grading rubric for a research paper is shown in Figure 7.

Guideline 11: The instructor should use a grading rubric to ensure consistency in grading team projects and should make the rubric available to students at the inception of the project.

Other Outcomes

"Other Outcomes" in the McGrath model include member satisfaction, group cohesiveness, attitude change, and sociometric structures. These metrics are intended to measure individual team member characteristics and attitudes following the completion of the project. In particular, did team members experience a true team-building environment? Were team members mutually accountable? Were they able to work through conflicts productively? Did the individual team members feel that they accomplished something meaningful and purposeful through this project? These metrics provide insight into the level of satisfaction students feel at the end of the project.

Member satisfaction. Some of the teaming instruments we previously discussed measure team satisfaction. Bateman et al. (2002) discuss a tool they developed for team self-assessment of effectiveness. The tool can be administered multiple times during the team's life cycle to assess changes in effectiveness during the project. The tool measures team synergy, performance objectives, skills, use of resources, innovation, and quality. The authors also provide a normative standard, derived from testing the instrument across 37 teams.[9] This tool provides one method for instructors to assess team effectiveness.

A second tool for helping teams periodically measure their own effectiveness is provided by Hoevemeyer (1993). Her Team-Effectiveness Inventory consists of 20 questions. Each team member completes the inventory and scores are transferred to a Team-Effectiveness Scoring Sheet. The scoring sheet consists of five effectiveness areas: (1) team mission, (2) goal achievement, (3) empowerment, (4) open, honest communication, and (5) positive roles and norms. The team then discusses the consensus score and addresses areas of improvement.[10]

Guideline 12: The instructor should provide teams with a tool to measure team satisfaction.

[9] See Bateman et al. (2002) for a copy of the instrument and scores that constitute the normative standard. This instrument and scoring is freely available and fully contained within Bateman et al. (2002).

[10] See Hoevemeyer (1993) for a complete copy of the instrument and team-scoring sheet. This instrument and scoring is freely available and fully contained within Hoevemeyer (1993).

FIGURE 7
Grading Rubric for Research Paper Presentation
100 points

Date of Presentation: _____
Name of Individual: _____Group # _____

Group Factors (30 points)
Professionalism: Introducing themselves, giving an overview of the presentation, conduct during the presentation, transition between individuals speaking, summarizing the presentation. Make sure there are no grammatical errors on slides and that fonts are not too small.

Use of technology	1	2	3	4	5	6
Transitions	1	2	3	4	5	6
Introduction	1	2	3	4	5	6
Conclusion	1	2	3	4	5	6
PowerPoint slides	1	2	3	4	5	6

Score: _____

Comments:
_____
_____
_____

Individual Presentation Style (70 points)
Includes engaging the audience, establishing a rapport with listeners, voice modulation and projection, appropriate use of gestures, use of notes, organization of presentation, appropriateness of material used in presentation.

Modulation	1	2	3	4	5	6	7	8	9	10
Eye contact	1	2	3	4	5	6	7	8	9	10
Projection	1	2	3	4	5	6	7	8	9	10
Use of notes	1	2	3	4	5	6	7	8	9	10
Gestures	1	2	3	4	5	6	7	8	9	10
Rapport	1	2	3	4	5	6	7	8	9	10
Q&A	1	2	3	4	5	6	7	8	9	10

Score: _____
Comments:
_____
_____
Final Score _____

SUMMARY

For many years the accounting profession has promoted the value of team building and has encouraged accounting educators to invest time in helping students develop these skills. Many accounting educators have answered this call by implementing team projects. However, these educators often are not trained in the organizational behavior theories and methods required to provide an effective team-building experience.

This paper provides an introduction to team building for the accounting educator. We clarify the difference in terminology between "groups" and "teams" and explain where accounting student teams fall in the taxonomy. We discuss major theories of team building and assist educators in issues such as how many people to assign to a team, how to facilitate conflict management, and how to provide effective outcome assessment of the team's efforts. Through our recommendation of specific guidelines, accounting educators may enhance student team-building skills. It is our hope that through this paper, accounting educators can develop competency in not just assigning team projects, but promoting the ideals of team building that students will undoubtedly need to succeed in the accounting profession.

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