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Ready for action: Developing classroom teams to prepare students for the business world

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Abstract

The ability to work in teams is one of the most highly valued professional skills. Preparing students to operate effectively in workplace teams, therefore, is naturally a priority for business and management faculty. Managing course-based teams, however, can be a challenging and complicated process for many instructors. This article offers instructors practical solutions to those challenges. After a brief review of relevant literature on workplace and course-based teams, the authors provide the results of a survey of 207 current undergraduate business students conducted in the fall of 2015 in which the authors sought to determine: (1) the factors that influence students' best and worst team experiences, and (2) undergraduate students' overall impressions of teamwork. Based on these results, the authors developed two successful—though very different—strategies for managing the classroom group process, which were implemented in business communication courses in the spring of 2016.

Keywords: Teamwork, Course-Based Teams, Workplace Teams, Management Strategies

Although it seems obvious that most people will work in teams in their professional lives, Ken Blanchard Companies' annual survey of nearly 1,000 human resource and organization leaders found that over half of respondents "spend up to 30% of their day in a team setting" (2006, p. 1) and just over a third spend half the day working in teams. With this in mind, it's no surprise that the National Association of Colleges and Employers' annual Job Outlook Survey (2011, 2015) has found that the ability to work in teams has been one of the top two most desired skills by employers for the past five years.

The importance of teams in the workplace creates a similar emphasis on teamwork in schools and colleges of business. In the 2016 update to their accreditation guidelines for bachelor degree programs in business, the Association to Advance Collegiate Schools of Business (2016) includes teamwork as an essential general skill and includes group behaviors in organizations as an important knowledge area. This emphasis by the accrediting body has resulted in pedagogical programming in courses of business focused on developing vital teamwork skillsets.

Course-based teams can, however, present a range of complications for professors, from assignment development and assessment to facilitating student commitment and engagement. Research within the business disciplines and related disciplines offers insight into professor and student attitudes toward team

projects, as well as strategies for developing and assessing course-based teams. The management of course-based teams is addressed, but with less breadth. Recent research, including this study, suggests that instructors need and want more effective strategies for the management of course-based teams (Sashittal, Jassawalla, & Markulis, 2011; Marks & O'Connor, 2014).

To address this need among instructors, we first offer a brief review of relevant literature on workplace and course-based teams. Then we provide the results of a survey of 207 current undergraduate business students conducted in the spring of 2015 by the authors in which we sought to determine: (1) the factors that influence students' best and worst team experiences, and (2) undergraduate students' overall impressions of teamwork. Based on these results, we developed two successful—though very different—strategies for managing the classroom group process, which we implemented in business communication courses in the spring of 2016 and which we present in the final section of this article.

Workplace Teams

Understanding how effective teams function in the workplace is important for preparing business students for success in the workplace. While there is a great deal of research on effective teams, of particular interest to this study are findings regarding the maintenance processes of such teams and strategies for improving team cohesion. One consistent finding is that effective teams have clear, shared understandings of the team's goals and work processes. In their study on the actual effects of successful self-managing workplace teams, Kuipers and Stoker (2009) argue that teams develop a shared understanding through a process they call *internal relations*: the team's management of the ways in which they will work together on the assigned task (p. 408). Kuipers and Stoker found that high internal relations scores correspond with low instances of long-term absenteeism, which presumably leads to increased productivity (p. 413). Additionally, Butchibabu, Sparano-Huiban, Sonenberg, and Shah (2016) found that top-performing teams use more implicit coordination during their teamwork, particularly with medium- and high-complexity tasks, than lower-performing teams. *Implicit coordination* refers to actions that team members take to pre-emptively provide content or information to other members. Studies like Kuipers and Stoker's (2009), and Butchibabu et al.'s (2016) show the positive impact of establishing a shared mindset and approach when working in a team. These findings, which emphasize a shared mental model concerning the task, have been supported by not only team studies (Wesner, 2015; Wesner, 2016), but broader organizational studies of group performance (Weick, 1976, 1988, 1993).

Much of the recent research on team-building strategies focus on ways to develop a shared understanding that leads to increased effectiveness for workplace teams. Recommendations often begin with activities that establish a foundation for the team, such as defining objectives; creating agreed-upon outcome statements; establishing members' strengths, weaknesses, habits, and roles; having team conversations about biases and expectations; and so on (Keavney, 2016; Necşoi, 2015; Peterson, Rauch, & Lee, 2013; Toegel & Barsoux, 2016; Warrick, 2014). These kinds of activities assist team members in ensuring they are working toward the same goal and also finding the best ways to work with one another. The foundational nature of these activities suggests that they occur toward the beginning of a team's work together or work on a new project. However, some literature suggests the importance of engaging in such activities later in a team's life-cycle. Raes, Kyndt, Decuyper, Van den Bossche, and Dochy (2015) found that teams engage in more learning—specifically co-construction and constructive conflict—at later stages of team development, suggesting that activities such as discussing biases and expectations are equally helpful at later stages of teamwork. Similarly, Gersick's (1988) finding that teams establish new agendas and processes in the second phase of teamwork points to the importance of discussing those foundational objectives throughout the project's timeline.

Further, research indicates that team composition has a significant impact on overall performance. Teams that come together as a cohesive whole are believed to function largely due to the skillsets that are brought to the team and whether those skillsets fill in the voids of other team members. When this is the case, team members develop individual identities within the cohesive whole, with each team member knowing their role in furthering the team's ultimate end. Further, research indicates that as teams continue to interact, train, and perform, they develop a group understanding of their identity. That identity proves crucial to the overall performance of the team and has particular value during times of team constraint and stress. In these times of difficulty, the team members may be tempted to abandon the project altogether, yet if the shared identity proves strong enough, teams have been found to be extremely resilient (Weick, 1993, 1998; Wesner, 2015, 2016).

Overall, research on workplace teams shows that team members work through a series of stages or phases as they develop shared understandings, expectations, and processes. Scholars and practitioners strongly recommend team-building strategies—particularly those that support creating a shared mindset—to facilitate a team's progression through these stages. These strategies are important aspects of effective team management.

Course-Based Teams

While the classroom does not correlate directly to the workplace, business courses are still spaces for students to begin understanding and practicing effective teamwork strategies. However, it is also important to consider how established professional practices that have proven effective in the business world might be adapted for the classroom, which ideally emphasizes the development of knowledge and skills rather than simple task accomplishment.

Scholarly journals across the business disciplines offer a range of sample assignments that can be used in different courses. However, research on instructor attitudes and motivations toward course-based team projects reveal concerns regarding effective and efficient strategies for managing teams, strategies for ensuring student learning, and instructors' own qualifications to prepare students for teamwork (Sashittal, Jassawalla, & Markulis, 2011; Chapman et al., 2010). To address these concerns, some strategies have been recommended for the set-up and management of course-based teams. For the most part, this scholarship highlights four key areas of consideration:—how to prepare students for teamwork, how to form teams, formal structures for managing teams, and assessment of teamwork.

Preparing Students for Teamwork Success

Much like the emphasis on team building activities in workplace team literature, research on course-based teams found that when using course-based teams, instructors should provide instruction about the development and practices of effective teams (Feichtner & Davis, 1985/2016; Amato & Amato, 2005; Scarfino & Roever, 2009; Snyder, 2009; Hansen, 2006; McAlister, 2006; Sashittal, Jassawalla, & Markulis, 2011; Buckenmyer, 2000; Marks & O'Connor, 2014). In one of the earliest surveys of student perceptions of teams, Feichtner and Davis (1985/2016) found that students generally had better team experiences in Organizational Behavior, Business Communication, and Speech Communication courses—courses that typically included content regarding effective communication for both team and individual communication. Students should also be engaged in the reflection of their own preferences and strategies for working with others who may have different teamwork and communication preferences. Scholars promote a variety of self-assessment tools to facilitate such instruction, including the Myers-Briggs Personality Assessment (Amato & Amato, 2005), Hermann's "whole brain model" (Scarfino & Roever, 2009), and others.

Moreover, much like team building activities in the workplace, this kind of team skills development should be on-going through the team project—not just at the beginning of the team's life-cycle. Although most students have experience working with teams, most of them have not had the instruction and support to improve their teamwork skills. Recommended activities for course-based teams include guided team meetings with the instructor and interim reports on team progress and processes (Snyder, 2009; Hansen, 2006; McAlister, 2006; Sashittal, Jassawalla, & Markulis, 2011).

Recent research specifically investigating the effectiveness of explicit instruction on effective team behavior argues that such instruction improves student team experience as well as student learning (Snyder, 2009; Hansen, 2006; Buckenmyer, 2000). Moreover, Marks and O'Connor (2014) found that 52% of students desire this kind of instruction prior to working in teams.

Forming Student Teams

While workplace teams are typically formed based on the needs of the project and available personnel, instructors typically do not have student populations that allow for such ideal team formations. Therefore, team creation is understandably a concern of instructors. Most of the research addressing *how* to form teams rely on Fiechtner and Davis' 1985 study, which found that students prefer to be grouped by the instructor. Fiechtner and Davis found that 40% of negative team experiences were with teams formed by students, while 22% of positive experiences were with student-formed groups (1985/2016, p. 15). Additionally, Muller (1989) argued that student preference was not an important criterion for forming effective teams. More recent studies also support instructor-formed teams because they give students the advantage of group stability and diversity, all while more closely replicating workplace team formation (Koppenhaver & Shrader, 2003; Hernandez, 2002; Buckenmyer, 2000; Hansen, 2006).

When instructors are creating teams, scholars recommend various methods. Aligning with the idea of preparing students for teamwork by helping them understand their preferences, some scholars suggest grouping diverse and complementary students together based on the results of personality tests (Scarfino & Roever, 2009; Amato & Amato, 2005). Others recommend collecting information from students about their majors, abilities, interests, and other assets (Roebuck, 1998; Krause, 2009). On the other hand, in McAlister's (2006) courses, students' work with clients, and the student groups are formed based on affinity for particular clients and student availability. In sum, while business scholars generally recommend that instructors should form groups, the pedagogical recommendations for doing so suggest that information and preferences provided by the students should be incorporated into the instructor's decision-making process.

It is worthwhile to note that some studies do support student-formed teams. Marks and O'Connor's study found that students across their the disciplines "showed some interest in being able to select their own groups" (2014, p. 157) rather than teams being formed by instructors. Additionally, Bacon, Stewart, and Silver (1999) found that students "best" team experiences—where "best" is defined by the students—were in student-formed teams.

Managing Course-Based Teams

The research shows that student teams are more effective when they manage their teams with formal structures and tools, such as team charters, task schedules, and implementation plans. Specifically, Mathieu and Rapp (2009) found that student teams who develop high-quality charters *and* task work strategies see greater productivity throughout the project. Although students may be resistant to this

detailed set-up of their teams, Aaron, McDowell, and Herdman's (2014) survey found that students agree that such tools improve the quality of teamwork.

Team charters explicitly establish the ways in which the team will work together. Thus, the charter includes basic information, such as team members' names, the team name, contact information and preferences, members' availability, regularly scheduled meeting times and places, conflict management strategies, and so on (Wolfe, 2010; Buckenmyer, 2000). Happily for instructors of courses not focused on teamwork and communication skills, Aaron, McDowell, and Herdman (2014) found that the quality of teamwork is roughly the same whether students are provided detailed instruction about the use of charters or just provided a template to assist in completing a charter.

Task schedules or implementation plans detail the tasks necessary to complete the project and the team member(s) who will complete each task, including a deadline for each task (Wolfe, 2010; McAlister, 2006; Krause, 2009). Wolfe (2010) recommended that each task should be rated for difficulty so as to ensure "fairer" distribution of workload. Students should be made aware that such plans will likely change, but establishing a plan ensures the team has a better understanding of the project.

Assessing Teamwork and Projects

Much like the formation of teams, assessing teamwork and projects is heavily discussed in the literature. The primary concern is whether members of a team should be given a single grade or individual grades. The typically recommended method is a hybrid in which students are assessed based on a combination of collective and individual work, as well as peer evaluation (Brandyberry & Bakke, 2006; Hansen, 2006; McAlister, 2006; Fiechtner & Davis, 1985/2016; Marks & O'Connor, 2014; Roebuck, 1998).

Team charters and task work schedules, which identify each team member's responsibilities, can be used to identify and assess each student's contribution to the team. Team charters can include the team members' initial agreements about the team and individual goals, while task schedules should be "living" documents that are regularly updated to reflect the contributions of each team member. Using these two documents, instructors could assess the effectiveness with which the team and each member achieved their goals, and the instructor could use the task schedule to identify the contributions of each team member. Individual grades could also be informed through a culminating self-assessment and peer evaluations.

When considering the process of implementing such peer evaluations, scholars found that peer evaluation was more effective when it was completed privately rather than in agreement with the group (Lejk & Wyvill, 2001) and that the evaluations are of a higher quality when incorporated into the grade (Brandyberry & Bakke, 2006). Keyton and Beck (2008) suggested the use of an evaluation framework that guides peer evaluation and focuses peer assessment of team members' leadership, decision-making, and conflict management skills. The collective grade can be assessed on the team's final product.

Interestingly, Bacon, Stewart, and Silver (1999, p. 483) found that when using end-of-project peer evaluation, students were more likely to avoid addressing negative behaviors and instead simply give a poor evaluation to under-performing teammates. Surveys of student preferences show support instead for the option of "firing" a team member or a combination of peer evaluation and the "firing" option (Marks & O'Connor, 2014; Strong & Anderson, 1990).

Concerns about Course-Based Teams

Despite the research supporting the effective use of teams in business courses, concerns persist from both faculty and students. Perhaps the most common concern from both instructors and students is that some

students will not put in equal effort and thereby earn a "free ride" (Brandyberry & Bakke, 2006; Williams, Beard, & Rymer, 1991; Karau & Williams, 1993). To avoid this "social loafing," most scholars, and even students, recommend the incorporation of peer evaluation or the option to remove an unproductive team member (Brandyberry & Bakke, 2006; Hansen, 2006; Marks & O'Connor, 2014). Team charters and task schedules are also helpful in encouraging all team members to contribute to the project.

Interestingly, while the existing research finds that students often attribute negative team experiences to "social loafers," in general, students are more optimistic about group projects than faculty (Chapman et al., 2010). In Chapman et al.'s (2010) survey of student and faculty beliefs about team projects in which survey takers rated their agreement with provided statements about team projects on a Likert scale, faculty most strongly agreed that students are worried about their grades for team projects. Students, in contrast, most often agreed with the survey statement that groups had few arguments. In fact, Chapman et al.'s (2010) results from student responses to their survey showed that students most often disagreed that they were concerned about their grade on the team project and that they were concerned about having to do the work of other teammates. Additionally, in teams with highly conscientious members, Schippers (2014) found that social loafing does not significantly affect team performance.

Despite the theoretical and practical scholarly discussion on course-based teams, a need seems to persist for strategies that instructors can use to effectively manage student teams. In their survey of instructors, Sashittal, Jassawalla, and Markulis (2011) found that one reason instructors did not provide significant team-building instruction was that they did not feel qualified to provide it. Given this, it is not surprising that in Marks and O'Connor's (2014) survey of students, they found that only 32% agreed that professors effectively managed group work, with the same percentage disagreeing.

Scholarship provides some strategies for addressing these concerns, but a need persists for effective strategies that instructors can use to manage course-based teams. In particular, professors desire research-based strategies that fit with their course content and with their teaching styles. To address this need, the authors first conducted a survey of undergraduate and graduate students in business to determine which factors influence positive and negative team experiences and to gather their overall attitudes toward classroom teamwork. The authors used the results of this survey to inform the implementation of two distinct yet equally effective strategies for managing course-based teams.

Methodology and Data Analysis

To begin the process of creating evidence-based strategies for managing classroom teams, in the fall of 2015, we conducted a quantitative survey data of 207 undergraduate and graduate students in a school of business at a southern university. The effort centered on determining what factors prove most effective in bringing about positive teamwork experiences in the classroom. The survey itself consisted of categorical and Likert-style data collection designed to determine: (1) the characteristics surrounding the best and worst experiences of subjects with respect to team projects, and (2) the overall impressions of teamwork held by undergraduates. As we considered the nominal level questions in the questionnaire (see Appendix A), we determined that it was beneficial to inquire about the "best" and "worst" experiences that subjects had encountered during group projects. To do so, we designed a series of questions that were asked twice: once as the respondent considered his/her best experience, and again as the respondent considered his/her worst experience. This allowed for independent reflection by the subject based on the best vs. worst criterion. In contrast, the Likert-style items were designed to address teamwork experiences more generally and allowed independent comparison to responses derived from reflection on both good and bad experiences.

The participants represented a spectrum of specialty areas and degrees of professional experience, but to be included in the survey, subjects needed to have participated in one or more course-based team projects. All collected surveys were drawn from live classrooms with no information collected via online formats. Surveys were drawn primarily from business communication courses and represent a convenience sampling technique. This type of sampling, though lacking randomness, was effective for this study due to the large percentage of students within these classes who had worked in team projects throughout their time at university.

Data were independently coded and entered into the Statistical Package for Social Science (SPSS) for data analysis. Data underwent frequency analysis, analysis of variance, and linear regression to determine what factors proved most important to team success.

Results

To begin, we sought to determine why people who enjoyed working in groups felt that way. Interestingly, there was no correlation between the number of group experiences and group enjoyment. A simple linear regression revealed: (F(1,205) = 0.718, p > .001). R^2 for the model was 0.003, and the adjusted R^2 was -0.001. Thus, it appears that exposure to group projects alone has little to do with overall satisfaction with the group project process.

Next, we considered if the project evaluation processes used by professors in reviewing assignments had an impact on the overall satisfaction of students when reflecting on group projects. Options for evaluation included group grade only, group and individual grades, and individual grade only. A one-way ANOVA indicated no significant differences in preference for evaluation practices instituted by professors when grading group projects (F = 1.131, df = 2/201, p > .05, eta^2 = .977). This finding indicates that when students considered their best group experience, the method of evaluation that professors chose had no significant impact on the students' overall group experience.

As one might expect, when individuals reflected on their worst team experiences, how evaluations were administered by professors also showed no significant impact on overall satisfaction of group members when reflecting on group projects—with a one-way ANOVA indicating the following results: F = 1.131, df = 2/201, p > .05, eta^2 = 0.011. Thus, it appears that the evaluation method of professors has little, if anything, to do with overall perceptions of positivity in group work.

We also examined if the method with which work was assigned (role chosen by a group member, a role assigned by a professor, a professor-driven contact, or a situation in which a few eager members of the team simply took over and did all the work) had a significant impact on overall group work satisfaction. A one-way ANOVA indicated no significant difference (F = 0.652, df = 3/199, p > .05, eta^2 = 0.010). Thus, it appears that work division plays no significant role in enhancing overall satisfaction with the team processes.

However, when the use of a contract between participants was considered by respondents who indicated that they enjoyed working on team projects, a significant difference was noted. A one-way ANOVA found a significant difference between groups that opted to use a contract to stipulate group roles and responsibilities at the outset of group work and those groups that did not (F = 2.999, df = 2/203, eta^2 = .03). This indicates a significant impact on the overall satisfaction of group members when contracts are used. This finding gives some weight to the idea of establishing a preliminary set of responsibilities for team members and then formalizing those responsibilities in a document to which all members are held accountable.

Further, when respondents were asked to consider the communication platform that was primarily used by the group (face-to-face in class, face-to-face outside of class, text message, or email), a one-way ANOVA revealed a significant difference between groups based on the communication platform that was chosen (F =11.792, df = 3/4, eta^2 = .90). This indicates a significant impact on group experience when the communication platform was considered. Sixty-two and a half percent of respondents indicated that face-to-face communication outside the classroom was a key to overall satisfaction, and 75% of students reported a preference for face-to-face communication over other methods.

Simple linear regression analysis was performed between the dependent variable (I enjoy working in group projects in my courses) and independent variable (I always seem to end up doing all the work on group projects). Assumptions were tested by examination that normal probability plots of residuals and scatter diagrams of residuals versus predicted residuals. No violations of normality, linearity, or homoscedasticity of residuals were detected. No outliers were revealed in subsequent box plots. Simple linear regression analysis revealed that the model significantly predicted enjoyment from participation in group projects during coursework (F(1,200) = 38.727, p < .001) when R^2 for the model was .162, and adjusted R^2 was .158. Looking at the direct relationship more closely, we noted that the perception that one person was likely to do all of the work on a group project positively impacted the perception of group projects in general. This seems to validate the findings of Chapman et al., who reported similar findings in their 2010 study.

It was also interesting that there was a high degree of correlation between individuals who reported that they enjoyed working in group projects and their perception that group projects were essential to their learning progress. A simple linear regression was performed indicating (F(1,205) = 154.7, p < .001) when R^2 for the model was .0.430, and adjusted R^2 was .427. This correlation seems to indicate that people enjoying group work do so in large part due to their perception that group projects have a positive impact on their ability to learn and understand information presented in courses.

Finally, those who enjoyed group projects reported that they believe that those same group projects enhanced their presentation abilities by making those presentations easier to accomplish. A simple linear regression revealed: (F(1,202) = 37.12, p < .001). R^2 for the model was .0.155, and adjusted R^2 was .151. Notably, beyond the aforementioned enhancements to learning, respondents believed that performing in a group actually enhanced their presentation abilities when required as part of their group project score.

Discussion

The common organizational model around teams and team performance necessitates that schools of business expend significant efforts in preparing their students for teamwork in the workplace. With this in mind, this study set out to determine what factors influence students' impressions of teamwork in the classroom and to determine if students' perceptions had evolved over time in comparison with the work of other scholars. This study seems to indicate that such an evolution has taken place.

In conjunction with existing studies (Sashittal, Jassawalla, & Markulis, 2011; Marks & O'Connor, 2014), this study finds that the importance of proper team management in the classroom cannot be overstated. In particular, students in our study seemed to indicate a preference for formality in teamwork structure by indicating a strong correlation between the use of contracts or charters to establish team roles and how teams would be structured and managed. While this does not necessarily indicate a preference for "heavy-handed management" by professors in the classroom, it does seem to indicate that an established structure for group work and group management is preferred.

Further, when we review the existing scholarship concerning the importance of shared mental modeling of the team project (Butchibabu et al., 2016; Kuipers & Stoker, 2009; Weick, 1976, 1988, 1993; Wesner 2015, 2016), this study's findings concerning the preference for contract or charters detailing group roles seem to reify the need for group members to achieve common understanding. The use of a contract agreement between group members, and input from those same members, may help to clarify this common understanding of the overall goal of the group and how the goal is to be achieved. Further, and drawing on Wesner (2015, 2016), contracts which detail each individual member's role also provide the team with a common understanding of each member's area of expertise and responsibility.

As detailed earlier in the review of the literature, most modern research concerning course-based teams focuses on four areas of management: preparing students for teamwork, team formation methods, formal structures for team management, and assessment of teamwork projects. While our research did not directly address the concept of preparing students for teamwork, it is interesting to note that as Feichtner and Davis (1985/2016) might well have predicted, certain elements of the theory surrounding effective communication in teams did filter through to our results. For example, respondents clearly indicated a preference for face-to-face communication in order to facilitate their group work. This type of "rich" communication is often highly touted for its effectiveness in classroom discussions concerning communication in teams. Again, our research did not attempt to assess the effectiveness of student preparation for teamwork; still, the findings concerning communication medium preference are interesting.

The idea of team formation was assessed by our research directly, and our findings seem to indicate the possibility that teams, as we know them, have evolved somewhat in their perceptions on this concept since the groundbreaking work of Fiechtner and Davis (1985). While their study clearly indicated a preference for being grouped by the instructor, our findings indicated that students no longer had a preference for how they were assigned to teams.

When we considered how teams were to be managed, we again found a strong preference for structure in the team process. Here students appeared to indicate a preference for teams that were governed by structure and contracts that outlined their roles. These findings may be based on the idea that clearer roles produce less ambiguity concerning what is to be done and who is to do it. Further, contracts contribute to a structure of accountability in which if a student fails to perform their particular role, their failure can quickly be identified and corrected. Finally, a structure that provides accountability also allows for individual penalties to be assessed based on individual student failures, thus, giving the group more confidence in the assessment of their own portion of the work.

As noted earlier, previous research has indicated that a hybrid approach of individual and group assessment is generally considered the most effective form of assessment (Brandyberry & Bakke, 2006; Hansen, 2006; McAlister, 2006; Fiechtner & Davis, 1985/2016; Marks & O'Connor, 2014; Roebuck, 1998). However, our survey again found that some evolution in this position may be taking place. Students in this study indicated no clear preference for how the assessment of group projects would take place. It is not clear why this evolution has taken place, and further study may be needed to make a clear determination as to the origin of this evolution in perception.

Finally, existing literature indicates that both students and faculty are concerned that social loafing may pose a significant issue during team processes with one or more students doing little to no work while getting a "free ride" from more dedicated students (Brandyberry & Bakke, 2006; Williams, Beard, & Rymer, 1991; Karau & Williams, 1993). Again, this study noted some evolution in this position, with students reporting that they actually enjoyed team processes more when they felt that they would be

doing a disproportionate amount of the work themselves. This evolution may be attributable to the idea of students controlling their own grade by doing more of the work than they would if work assignments were proportional. While this is somewhat speculative, the evolution toward increased workload correlating with group process satisfaction seems to indicate that students may be willing to accept higher workloads in order to facilitate team processes.

Models of Group Process

As we considered the findings of our study pertaining to the need for increased structure in the classroom, two authors set out to develop and test structures that proved effective in facilitating classroom group process. Interestingly, both authors developed structures that were quite different from each other, yet proved effective in bringing about positive results within their classrooms. As indicated, the management strategies may be categorized based on their level of professor interaction with the process, and, in this case, we have categorized them as having indirect or direct interaction with the student groups. Summaries of each of the developed structures are presented below.

Indirect Interaction Management Strategy

An indirect interaction management strategy involves limited interactions between the instructor and the student teams and occurs only at the beginning of the team process, and then on an as-needed basis thereafter. This strategy has proven effective in almost any teamwork situation and is based almost entirely on principles applied in the business community. This not only functions to enhance the team processes of students but also acquaints each student with management practices that they will likely face in the workplace. This strategy may also be effective for instructors who prefer to be more "hands-off" and allows teams to self-manage while still providing the resources needed for success that were identified in the research and our survey.

The indirect method of team management was developed by Author 1 previous to this study; modifications were made in the spring of 2016 based on the results of the survey. This method has been used successfully in subsequent years to manage course-based team projects, including those with written and presentation components. The student teams have averaged seven team members with as few as four and as many as nine. This system uses a management hierarchy designed to facilitate team processes and address any problems that the team cannot resolve independently.

Before teams are created, students are engaged in two lectures on interpersonal and team communication. Teams are then selected, either by the professor or the students themselves. Once teams are established, the teams are charged with electing a team leader. The professor explains that the team leader will serve as a liaison between the team and upper management (the professor). While this method does not use a team charter, the clear hierarchical organization provides an equivalent degree of structure—the main characteristic students prefer, as confirmed in our study. Additional formality and structure are added by the group's initial, detailed agreement on the internal processes for decision-making and conflict resolution.

As problems emerge during the life of the team, the team leader is encouraged to resolve issues within the team itself, without bringing upper management into the conflict if possible. The method of resolution is left to the team leader and the team members to resolve. While most teams strive for consensus on issues, some teams have opted for pure democratic management styles with a majority of votes needed to secure decisions. While consensus is preferred by Author 1, little, if any, difference in eventual team performance was noted. What is important is that the team, led by the team leader, establishes how

decisions will be made and conflicts resolved. Once that decision is made, the team must make every effort to use that method throughout the project and the life of the team.

At the outset of the team formation process, all team members are informed by the professor that in the event that major problems manifest within the team, that the team leader will be charged with bringing those problems to upper management. This is done with any problems that the team leader feels unable to address or with issues that the team is unable to manage via voting, consensus, etc. All team members are informed that, should a problem be presented to upper management by the team leader, upper management will then make a final binding decision on the issue at hand. The decision of upper management may not be challenged, questioned, appealed, or overturned. The process of escalation to upper management serves two purposes: 1. it allows a mechanism for resolving complex problems that the group feels unable to handle, and 2. as most teams like the idea of autonomy, team members demonstrate high levels of determination toward solving their own problems internally.

To encourage interaction within the team and allow for limited interaction with upper management as necessary, at least three class meetings have time set aside during which the teams meet briefly, interact with upper management, and work on their project. These meetings also reflect the preference, confirmed in our survey, of students to meet face-to-face with their teams. Upper management must keep interactions with each team brief, providing only the team-requested details and assistance. Inquiries by upper management can be made concerning team progress at this time, but every effort should be made to keep interactions pleasant and brief.

These scheduled team meetings can be an effective way to compel teams to identify performance issues within the team and keep processes moving forward effectively. The class meeting time can be used to discuss and make a plan to resolve any issues that are identified, which serves to ensure that team processes continue to advance. These team meetings normally last about thirty minutes each and include about five minutes of interaction between the professor and the team.

One concern of the direct interaction management strategy is how much control the process gives to the team, and how little direct oversight of the process the professor has. However, as reported in course evaluations, students seem to value the autonomy of decision making, allowing them to self-manage, develop team conflict management and process management strategies, and eventually determine what strategies are effective.

The indirect management strategy proved successful in the semester during which this study took place, as well as in subsequent semesters. From the time this study was initiated to the present day, only three issues have ever been raised to the level of upper management. All three issues were resolved quickly and allowed the teams to continue to function admirably. Overall, on individual team evaluations as well as course evaluations, team members reported high levels of satisfaction with their team processes, the final project itself, and their final grade.

Direct Interaction Management Strategy

A direct interaction management strategy involves more interaction between the instructor and the student teams, often in the form of guidance or direction from the instructor. Direct interaction management of course-based teams can be an effective strategy when the course content directly relates to the principles and skills involved in teamwork. For example, this strategy can be effective in business communication, management, human resources, and other similar courses. Given that research encourages instructors using course-based teams to provide guidance on effective teamwork practices, this strategy may also be used in courses with content less directly related to teamwork skills and

knowledge (Feichtner & Davis, 1985/2016, Snyder, 2009; Hansen, 2006; McAlister, 2006; Sashittal, Jassawalla, & Markulis, 2011). This strategy may also be effective for instructors who prefer to be more "hands-on," or more informed about their teams' progress.

Although there are many variations of this strategy, one tested system for using the direction interaction management strategy, used in a business communication course, is provided. In this study, this system was used to manage an 8-10 week team project for which the product is an 8-10 page researched report. The student teams have approximately five members. The system is summarized below.

Before teams are created, students are engaged in two lectures on interpersonal and team communication. On the day that teams are formed, students bring to class a printed one-page team personality and preferences description. Students use their one-page summaries to learn about as many of their classmates as possible. During the "meet and greet" time, the instructor circulates to ensure that students are learning about as many other students as possible. After an amount of time determined by the instructor, students can begin to form into teams based on the instructor's criteria for the teams. Once the students believe they have formed an effective team, they seek approval from the instructor by convincing her or him that they will be an effective team~~,~~ based on the lecture content and their individual and collective personalities, preferences, strengths, weaknesses, and availability. This process takes approximately 30-40 minutes, but it could be adjusted to require less in-class time.

Once approved, teams complete a team charter and task schedule that is submitted usually within a week of team approval. The inclusion of this facet reflects the preference, indicated in our study, for enhanced structure in course-based teams in general, and for team charters in particular. A team charter template is provided to the students, which includes common charter sections, such as team and individual goals, roles and responsibilities, potential concerns and planned solutions, and a conflict resolution plan. The task schedule provides a breakdown of all the small tasks needed to achieve the final goal and produce the final product. The breakdown of tasks is determined by the students with some guidance from the instructor. In addition to naming the building-block tasks, the task schedule also includes for each "small task" the team-assigned due date, the responsible team member(s), the value or difficulty of the task (generally on a scale of 1-5), and the status of the task. An updated version of the task schedule is due with the final product. To ensure that the foundational documents are taken seriously by the students, a small percentage of the final grade is earned through the robust completion of these documents.

These documents provide a foundation for the teamwork process, and the students are able to have a sense of ownership over the team process they have established in the documents. Because of this, in the occasions when teams have had conflicts, the students generally claim that the fault is their own for not being clearer in the charter, or for not enforcing or following the guidelines they established.

In addition to the use of charters and task schedules, students are provided at least three class meetings during which the teams meet briefly with the professor for a progress update and spend the rest of the class meeting working on their team project. Again, these meetings reflect students' preference, noted in our survey results, for face-to-face interaction with team members. Progress updates include a brief description of the progress made on the expected product as well as an update on the team's efficiency. Regarding team efficiency, students know that they will be asked to discuss their strengths as a team, as well as their weaknesses and a plan for addressing those weaknesses. Teams are required to identify a "weakness," even if it is not especially problematic to team efficiency so that the students are also considering and developing strong teamwork and communication practices throughout the course. All progress updates following the first must also include an update on the effectiveness of their improvement plan.

These progress updates are effective in compelling teams to actually inform their teammates that there is an issue, and the class meeting time can be used to discuss and make a plan to resolve that issue. While most teams report that their "weakness" is finding time to work together, teams have also identified communication concerns(such as delayed or lack of responses from teammates, unclear expectations, unproductive use of meeting time, etc.)that members were reluctant to point out to their teams. The team progress meetings typically take 5-10 minutes of "hands-on" time from the professor, and most of that time is used asking guiding questions and offering some strategies or guidance.

One concern of the direct interaction management strategy is the amount of time it can require of the professor. However, because the teamwork and communication strategies are related to course content, the time investment is directly related to achieving course goals. Additionally, most of the invested time is in the set-up of the teams, which has led to less need to intervene or resolve conflicts later in the semester. Most of the time required in this system is invested during class meetings that are already assigned as in-class work days for the teams. In lieu of in-class work time, one-page update memos could be submitted by each team, which likely would require a substantial amount of time from the professor to review and respond. Overall, using this strategy, Author 2 finds it effective in keeping students aware of their development of teamwork tools and strategies in addition to the topic and content of the project.

Conclusion

Teamwork is a reality of the modern workplace, and business professors recognize the need to prepare students to flourish in the team environment. They are often unsure, however, how to best manage groups in the classroom to ensure that students acquire the teamwork skills they need. After reviewing relevant research on workplace and course-based teams, we surveyed more than 200 current undergraduate business students to determine which characteristics influence their best and worst team experiences and to gather their overall impressions of classroom teamwork. Based on the results of this survey, we developed two successful strategies that instructors can use to manage the course-based team process. Although distinct from one another, these strategies provide two viable options for instructors who desire to prepare their students for the reality of workplace teamwork. The direct and indirect strategies also demonstrate two of many options that are available to instructors who desire to prepare their students for the reality of workplace teamwork while also supporting their students' teamwork skill development.

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Appendix A – Class Team Projects Survey

The purpose of this survey is to determine students' opinions about team projects in their courses. If you have never worked on a team project in any of your college courses, please do not complete this survey. Your participation is voluntary, with no risk or benefit. Results will be presented at an academic conference and reported in group form only. All responses are anonymous. By completing the survey you are indicating your informed consent to participate in this research.

1. How many times have you worked on a team project in your college courses?
    a. 1-2
    b. 3-4
    c. 5-6
    d. More than 6 times

2. What types of projects were they and how many of each?
    a. ___ Oral presentations
    b. ___ Written reports
    c. ___ The projects involved both oral and written components

3. What role(s) have you taken in your teams?
    _____
    _____

4. Please rank the following *advantages* of working on team projects in a course. (1 = Best reason to work in a team on a project)
    a. ___ Divide the workload
    b. ___ Opportunity to make friends, network with other students
    c. ___ Get new ideas; learn from each other
    d. ___ Learn to get along with different personalities
    e. ___ Solve problems creatively
    f. ___ Learn teamwork skills
    g. ___ Improve communication skills
    h. ___ Other _____

5. Please rank the following *disadvantages* of working on team projects in a course. (1 = Worst part of working in a team on a project)
    a. ___ Unfair distribution of the work
    b. ___ Different work habits among team members
    c. ___ Time constraints
    d. ___ Geographical constraints
    e. ___ Forced to cooperate with people who don't do their share
    f. ___ No leader or poor leader
    g. ___ Communication breakdowns
    h. ___ Personality conflicts
    i. ___ Other _____

The next set of questions refers to the worst team project you experienced in a course.

6. How did your team divide the work?
    a. Each member volunteered to do a part
    b. The professor assigned responsibilities
    c. The team drew up a contract and signed it
    d. One or two members took over and did all the work

7. Did your project team develop a contract?
    a. Yes, and we followed it
    b. Yes, but we didn't follow it
    c. No

8. What platform did your team use for communication? (mark all that apply)
    a. Face-to-face meeting outside of class
    b. Face-to-face meeting during class
    c. Text Message
    d. Instant Message
    e. Email
    f. Google Groups or Hangout
    g. Facebook
    h. Blackboard discussion forum
    i. Group tools on Blackboard
    j. Wiggio
    k. Other _____

9. Was team effectiveness a part of the project's grade?
    a. Yes
    b. No

10. If team effectiveness was a part of the grade, what percent was it?

11. How was the project evaluated?
    a. Group grade only
    b. Group & Individual grades
    c. Individual grade only

12. Was the team project in an online or face-to-face course?
    a. Online
    b. Face-to-face

13. How was the team evaluated?
    a. By the professor
    b. The team members evaluated each other
    c. Both a and b
    d. The team was not evaluated

The next set of questions refers to the best team project you experienced in a course.

14. How did your team divide the work?
    a. Each member volunteered to do a part
    b. The professor assigned responsibilities
    c. The team drew up a contract and signed it
    d. One or two members took over and did all the work

15. Did your project team develop a contract?
    a. Yes, and we followed it
    b. Yes, but we didn't follow it
    c. No

16. What platform did your team use for communication? (mark all that apply)
    a. Face-to-face meeting outside of class
    b. Face-to-face meeting during class
    c. Text Message
    d. Instant Message
    e. Email
    f. Google Groups or Hangout
    g. Facebook
    h. Blackboard discussion forum
    i. Group tools on Blackboard
    j. Wiggio
    k. Other _____

17. Was team effectiveness a part of the project's grade?
    a. Yes
    b. No

18. If team effectiveness was a part of the grade, what percent was it?

19. How was the project evaluated?
    a. Group grade only
    b. Group & Individual grades
    c. Individual grade only

20. Was the team project in an online or face-to-face course?
    a. Online
    b. Face-to-face

21. How was the team evaluated?
    a. By the professor
    b. The team members evaluated each other
    c. Both a and b
    d. The team was not evaluated

Please respond to each of the statements below by checking one of the boxes next to it.

	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
a. I enjoy working on group projects in my courses.					
b. Group projects enhance my ability to learn.					
c. I always seem to end up doing all of the work on group projects.					
d. Working with others on group projects gives me feeling of achievement.					
e. When involved with groups projects I let others do most of the work.					
f. I work best in group projects where I have a defined role.					
g. Working in groups makes presentations in class easier for me.					
h. I do better work when I work by myself.					
i. I consider myself a "team player."					
j. I have the skills to function in a team environment after I graduate.					
k. Professors should be more active in managing group projects.					
l. If given the choice, I prefer to be the group leader.					
m. I dislike performing research for group projects.					
n. I dislike doing the writing portion of group projects/papers.					
o. I like presenting in a group format.					

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