

Enhancing Students' Perceptions of Collaborative Projects With Pre-Group Instruction Methods

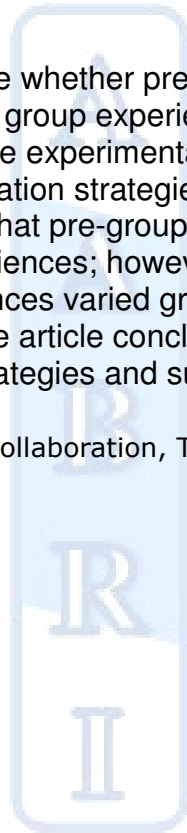
Lisa Gueldenzoph Snyder
North Carolina A&T State University
gueldenzoph@att.net

Kimberly R. McNeil
North Carolina A&T State University
krmcneil@ncat.edu

Abstract

This study sought to determine whether pre-group instruction about effective collaboration would promote positive group experiences and to assess students' perceptions about group projects. The experimental group received instruction about group dynamics, effective communication strategies, and personality styles; the control group did not. The findings suggest that pre-group instruction positively impacts students' perceptions of group experiences; however, students' perceptions of group projects as positive learning experiences varied greatly. No patterns emerged among students' demographic variables. The article concludes with several teaching resources to support pre-group instructional strategies and suggestions for future research.

Keywords: Project-Based Learning, Collaboration, Teamwork



Introduction

Collaborative skill is often a prerequisite to employment; therefore, learning to work well with others should not be an on-the-job experience. Because many organizations use team-based work groups in their day-to-day operations, employers seek to hire college graduates who already possess effective teamwork skills (Blowers, 2003; Ettington & Camp, 2002). Consequently, to be competitive in today's collaborative world of work, students must develop effective teamwork skills prior to entering the workforce.

To assess students' skills during employment interviews, recruiters often ask candidates to explain examples of their effective work-team experiences by explaining scenarios, tasks, actions, and results (known as the STAR method). To provide evidence of their collaborative skills, some students reflect on internship experiences while many others recall class-based group project experiences. If students adequately describe effective collaborative scenarios in which they were assigned tasks and completed actions that supported positive results, they will pass the STAR assessment. However, given their lack of enthusiasm for group projects, they may need to be creative to apply their classroom experiences to this model.

Many business courses integrate team projects to provide students with an opportunity to practice collaborative skills; however, students do not always perceive collaborative work as positive or successful. Ettington and Camp (2002) demonstrated that in most cases, students have undeveloped group process skills and that faculty should help actively rather than passively observe students' struggles. Likewise, Livingston and Lynch (2000) expressed that the degree of faculty guidance will play a role in determining whether the students find value in team-based learning (Payne, Monk-Turner, Smith, & Sumter, 2006). To encourage positive collaborative classroom experiences, instructors should embrace team learning methods that support effective group work. Students' perceptions are strongly tied to their direct experiences, and they find value in content and experiences that are meaningful and make sense to them. From an instructional perspective, the method of student preparation for a collaborative experience can have a notable positive impact on students' perceptions of collaboration.

Purpose of the Study

This research began as an exploration of course-based collaborative work in an effort to both assess students' perceptions of group work as well as determine best practices for assigning group projects. Based on the researchers' anecdotal experiences with course-based group work, students did not seem to value collaborative work either as a learning experience or as an opportunity to develop vital workplace skills.

The study is based on the premise that it is important for students to develop an understanding of the benefits of collaborative work as well as the advantages of teaming skills prior to participating in a group project. Students' involvement with collaborative learning experiences, or group work as it is more commonly referred to in the literature, improves their communication skills, enhances their critical thinking skills, allows for reciprocal learning, and teaches students to work well with others (Payne, et

al., 2006). Therefore, the purpose of this study was to determine if providing students with pre-group instruction impacted students' perceptions of collaborative projects.

Research suggests that students with prior group experience have more success collaborating with peers than students with no team experience (Oitzinger & Kallgren, 2004). This success is evident regardless of where the student acquires the experience (e.g., classroom projects or team sports) and whether the experience was actually positive. Additionally, when collaborative skills are effectively developed, students achieve better academic and social performance. Students are able to improve upon their existing skills by participating in pre-instructional activities specifically designed to enhance group dynamics, effective communication strategies, and personality styles. These skill areas provide the foundation necessary for students to purposefully identify the significance of collaborative activities and understand why they are relevant to their future development and progress. Therefore, this study assessed the effect of participation in pre-group instruction in group dynamics, effective communication strategies, and personality styles on students' perceptions of teamwork. In other words, does instruction about teamwork prior to a team activity change students' perceptions of teamwork?

Research Questions

To determine if students' perceptions of group work were influenced by their participation in pre-group instruction, this study focused on two student groups: (1) those who received pre-group instruction and (2) those who did not. Both groups completed collaborative assignments. Based on the review of literature, pre-group instruction should help students further understand the underlying dynamics of the collaborative experience as well as the content of the project itself. The researchers hypothesized that students who received pre-group instruction would perceive their collaborative experiences as more positive because of a deeper appreciation or sense of value for the group process. Therefore, the following research questions were addressed:

1. Do students who receive pre-group instruction perceive group experiences more positively than those who do not?
2. Do students' perceptions of group experiences change after participating in a group project?
3. Do students perceive group projects as positive learning experiences?
4. Are students' demographic variables (i.e., major, rank, and gender) related to perceptions of group work?

Review of Literature

The goal for most colleges and universities is to prepare students for the workforce. To fulfill this task, these schools attempt to provide their students with the skills sets required to become viable candidates for positions in their chosen careers. In basic terms, schools have a product (students), and to satisfy their customers (employers seeking applicants), schools must ensure that students are properly equipped with the tools necessary to facilitate their successful transition into the

workforce. The research indicates that collaborative skills are a critical requirement for most employees and that pre-group instruction can prepare students for more effective group dynamics.

Collaborative Skills

Many characteristics are included in the skill sets that employers want. Given the increasingly important role of teams in business, the ability to work successfully in collaborative settings is an attribute that employers significantly value. Research indicates that employers consistently cite collaboration as a critical skill for potential employees (Luca & Tarricone, 2001). Therefore, colleges and universities must foster positive and effective team experiences. Although many business courses require group projects, how successful are those projects at enhancing students' collaborative skills? Without additional instruction geared to equip students with group interaction skills, students may not perceive group experiences as positive learning environments and will not be prepared to work effectively in group environments in the workplace.

Pre-Group Instruction

In a study that questioned whether student group work prepares students for "leadership or skilled incompetence" (p. 590), the author suggested "emphasizing the importance of process learning, teaching team development, providing practice in communication skills, coaching individual students, and providing graded feedback for process quality" (Holmer, 2001, p. 605). These five elements create an integrated process of collaborative development that prepares students for teamwork, allows them to practice the collaborative skills required to perform well, and assesses both the individual and group effectiveness. Although most faculty are well equipped to support students' practice as well as provide feedback, their awareness of the need for preparation, or pre-group instruction, may not be as evident.

Several studies support the need to train students about collaborative practices before they participate in team projects. For example, Ettington and Camp (2002) surveyed students' perceptions of group work, and based on their findings suggested several principles that need to be applied to ensure collaborative projects adequately prepare students for real-world teamwork. These principles include "motivation, practice/feedback, follow-up similarities between learning situation and applied context, and generalization" (p. 356). A similar study, also based on student survey research but in a workshop setting (McGraw & Tidwell, 2001), supports providing group process training prior to a collaborative experience to lay the foundation for effective team experiences. They suggested integrating both a comprehensive orientation to the group experience and project goals as well as reflection activities after the project is completed. Too often, course-based group work focuses only on the group work and spends little, if any, time on orientation or reflection.

Group Dynamics

Group dynamics play a critical role in the development of a team. Within a class, some students work well together while other groups are dysfunctional. What variables contribute to these differences? Fairfield and London (2003) suggested the dynamics of team-based learning are analogous to musicians of an orchestra. Working well together (e.g., creating music), requires knowing the “melody, harmony, dynamics, tempo and rhythm” (p. 654) of the work. When the wrong notes are played or the rhythm is out of sync, the music suffers. Similarly, when students do not play their assigned part in a group project, the work suffers. When student work suffers, students engender negativity toward group experiences for varying reasons. In a study investigating students’ perceptions of group work, students cited interpersonal communication as the most significant factor affecting their group dynamics (Payne, et al., 2006).

In another study addressing student perceptions and group dynamics (Anderson, 2005), students’ perceptions of effective collaborative experiences were found to be directly related to the team’s cohesion and independence (i.e., whether they were able to function without the instructor’s support). Anderson’s conclusions suggested that instructors should carefully consider several factors when structuring student teams. These factors include “team heterogeneity, opportunistic practices, and hypothesis-driven thinking” (p. 85). These variables are exemplified in personality types. More research is needed on students’ perceptions of group experiences to better understand this teaming phenomenon to determine best practices for preparing students for effective team projects.

Methodology

This quasi-experimental study sought to determine if pre-group instruction enhanced students’ perceptions of collaborative projects. The following sections describe the study participants, the survey methods, and the survey instrument. The content and methods of the pre-group instruction are also discussed.

Study Participants

The participants of the study were taken from a convenience sample of students enrolled in four business classes within a school of business at a mid-sized regional university in the south during the fall 2007 semester. The four classes represented two sections of consumer behavior and two sections of business communication. Two of the four sections were randomly assigned as the experimental group (n = 53), and the other two sections were designated as the control group (n = 42).

Survey Methods

At the midpoint in the semester – prior to assigning collaborative projects in all four classes – the students completed a survey assessing their perceptions of teamwork and group projects. This initial data collection was labeled as Phase 1. As per the institution’s Institutional Review Board policies, students’ participation in the survey was

voluntary and their completion of the survey instrument constituted their consent. After the Phase 1 data collection, the experimental group received pre-group instruction; the control group did not. During the later part of the semester, all of the students in the study participated in comprehensive team projects that served as significant portions of their final grade. At the conclusion of the team projects, the students in all four classes completed the survey a second time; this data collection was deemed Phase 2. All survey responses were kept both confidential and anonymous. Survey results were aggregated within groups; individual student responses were not tracked from the first to the second data collection phases.

Survey Instrument

The self-designed survey instrument, provided in the Appendix, included 21 items. The first 10 items listed descriptors organized within a differential scale, which was adapted from existing McQuarrie and Munson RRP11 scale (Bearden & Netemeyer, 1999). Students were asked to identify how they felt about participating in group projects using a seven-point scale relating to variables such as importance, relevance, meaning, exciting, appealing, interesting. The inconsistent ranking of positive to negative perceptions on the survey was done intentionally to test the consistency of individual student responses. Six items used a Likert-scale format to indicate students' levels of agreement about statements relating to their overall group project experiences. These items included statements such as *group projects are helpful to my learning and grades; I don't like group projects, but I know I need to do them; and overall, I consider group projects a good experience.* The final five items requested demographic information, such as major, rank, gender, ethnicity, and number of students assigned to the project group. The instrument was pilot tested for validity and reliability with a small convenience sample of students who were not included in the survey participants.

Pre-Group Instruction

Prior to the beginning of the course projects, the students in the experimental group (n = 58) received instruction on group dynamics, effective communication, and the impact of personality styles in collaborative environments. The "pre-group instruction" treatment was designed based on the best practices outlined in the review of literature and supplemental materials. The students in the control group did not receive the pre-group instruction. At the end of the semester, all of the students completed the same survey assessing their perceptions of group work to ascertain the effects of the pre-group instruction.

Group dynamics

The first class session began with a review of the stages of group development: forming, storming, norming, and performing. This traditional four-stage model is presented in all sections of the business communication course, which all business students are required to successfully complete. Building upon the students' knowledge of group development, the class discussion continued with an activity requiring students to define the word "group" and challenging students to combine their individual

definitions by debating, negotiating, and determining a “best” definition. In randomly assigned teams of four, students discussed why group experiences are important in learning environments and then applied their reasoning to workplace collaboration. In both sections of the experimental group, students identified the managerial skills necessary to successfully lead a group as well as the interpersonal skills required to be an effective team member. Students listed the pros and cons of their prior group experiences. Although most students agreed that group experiences can provide effective learning experiences, they did not like working in groups due to the typical negative aspects, such as one student doing the majority of the work. However, students agreed that effective communication strategies could provide better group dynamics.

Effective communication strategies

At the conclusion of the first class session, students were assigned a homework activity to assess their communication experiences during prior group activities. The questions were taken from the Oxford Centre for Staff and Learning Development at Oxford Brookes University (2007):

- Were members expressing their ideas clearly?
- Were they evidently listening to each other?
- Did they make connections to or build on each others' contributions?
- Did they check for understanding or ask for clarification when they were not sure of what somebody else meant?
- Was there good eye contact [among] the group?
- Were feelings as well as thoughts communicated?

At the beginning of the second class session of the pre-group instruction, students shared their answers to these questions in randomly selected small groups (three to four students per group). The student groups found similarities among negative group experiences with regard to lack of communication. The whole-class discussion chronicled students' perspectives of good and bad group communication skills and determined strategies for improving group communication, such as providing positive feedback, ensuring all members of a group participate, and delivering constructive criticism that focuses on the product, not the person. However, even after applying these strategies, all groups indicated that individual students' attitudes or personalities can be the most negative aspect of group interaction.

Personality styles

The last half of the second class session of the pre-group instruction focused on personality styles and their impact on collaborative projects. Rather than using the Myers Briggs indicators, which include 16 variations of personality attributes, students received instruction on Tracom's Social Style Model (2006), which is based on two dimensions of human behavior: assertiveness and responsiveness. For example, students who are less assertive will *ask* their group members if they think they should proceed a certain way, while students who are more assertive will *tell* their group how they should proceed. Similarly, responsiveness is based on control of emotions. Students who *control* their feelings are less responsive; students whose emotions are

obvious are more responsive. The four quadrants of this model determine the four foundational personality styles:

- Analytical (less assertive, less responsive)
- Driving (more assertive, less responsive)
- Expressive (more assertive, more responsive), and
- Amiable (less assertive, and more responsive).

Students determined their own personality style and discussed the communication strategies that would work best among the various combinations of styles. In groups that included similar styles, such as Analytical and Amiable types who are typically both less assertive, students discussed methods for ensuring the group's collegial success. At the conclusion of the experimental group's pre-group instruction, their team assignments for the collaborative group projects were randomly assigned. Students shared their personality styles, participated in ice-breaking "forming" activities, and identified strategies to ensure their effective communication throughout their group project.

The combination of activities related to group dynamics, effective communication strategies, and personality styles served as the pre-group instruction content that was provided to the experimental group after the Phase 1 data collection, but prior to the assigned collaborative team projects that all four classes completed and the second data collection (Phase 2).

Findings

After the collaborative group projects were submitted and the students conducted their group presentations, both the experimental and control groups completed the survey for a second time (Phase 2). The data from the survey collection (prior to the pre-group instruction and collaborative project) was compared to the data from the second survey collection. The findings are addressed within the four research questions of this study:

1. Do students who receive pre-instruction perceive group experiences more positively than those who do not?

Yes, students who learn about, discuss, and apply concepts of group dynamics, effective communication styles, and personality styles prior to engaging in a group experience do perceive the collaborative activity more positively than students who do not receive this instruction. An analysis of variance (ANOVA) was used to compare means and determine statistical significance. Table 1 demonstrates the change in mean responses to the differential indicators that assess students' feelings about group work. The experimental group's responses were consistently higher than the control group's responses for each item. The item with the greatest significance at the $p > .05$ level was the students' perceptions of the collaborative activity mattering to them with the control group's ($n = 42$) mean at 4.6 and the experimental group's ($n = 53$) mean at 5.9 (standard deviation = 0.919).

Table 1. Control vs. Experimental Group Perceptions of Differential Items

Group Projects (Are)...	Control (n = 42)	Experimental (n = 53)	SD
Important	4.5	5.2	0.495
Relevant	4.4	5.1	0.495
Means A Lot To Me	4.3	4.5	0.141
Exciting	4.8	4.9	0.071
Neat	4.3	5.2	0.636
Matters To Me	4.6	5.9	0.919
Fun	4.2	4.4	0.141
Appealing	4.5	4.9	0.283
Boring	4.1	4.4	0.212
Of Concern To Me	4.4	4.8	0.283

2. Do students' perceptions of group experiences change after participating in a group project?

No, the mean scores of students' perceptions of group experiences are similar when comparing their responses before a group activity to their responses at the conclusion of the activity. Table 2 outlines the mean responses for all groups before and after the project. Again, analysis of variance was used to compare the means and standard deviations.

Table 2. Perceptions of Differential Items After Completion of Project

Group Projects (Are)...	Before Project (n = 95)	After Project (n = 92)	SD
Important	5.0	4.4	0.424
Relevant	4.8	4.6	0.141
Means A Lot To Me	4.1	4.3	0.141
Exciting	4.2	4.6	0.283
Neat	4.5	4.3	0.141
Matters To Me	4.7	4.5	0.141
Fun	4.6	4.4	0.141
Appealing	4.5	4.4	0.071
Boring	4.5	4.5	0.000
Of Concern To Me	4.7	4.5	0.141

3. Do students perceive group projects as positive learning experiences?

Yes and no. Table 3 demonstrates that the students' most favorable responses both before and after the group activity indicated that students consider group projects a good experience (mean = 3.6) and that they perceive group projects as helpful to their learning and their grades (mean = 3.5). An analysis of variance indicated that both mean responses were consistent during both data collections. However, the item that changed the most (although not statistically significant at $SD = .0283$) was students' perception that they always like group projects rather than working alone. In this case the students' mean score before the group activity was 2.8, and dropped to 2.4 after the group activity.

Table 3. Students' Responses to Likert-Scale Items

Likert-Scale Items	Pre-Group Activity (n = 93)	Post-Group Activity (n = 92)	SD
Group projects are helpful to my learning and my grades.	3.5	3.5	0.000
Group projects are not valuable to my education.	2.2	2.3	0.071
I don't like group projects, but I know I need to do them.	3.1	3.3	0.141
I always like group projects rather than working alone.	2.8	2.4	0.283
My general opinion of groups is unfavorable.	2.7	2.8	0.071
Overall, I consider group projects a good experience.	3.6	3.6	0.000

4. Are demographic variables (i.e., major, rank, and gender) related to perceptions of group work?

No. Statistically, no significant differences exist among demographic variables with reference to students perceptions of group work. However, the data represent several interesting findings. The variables are addressed separately.

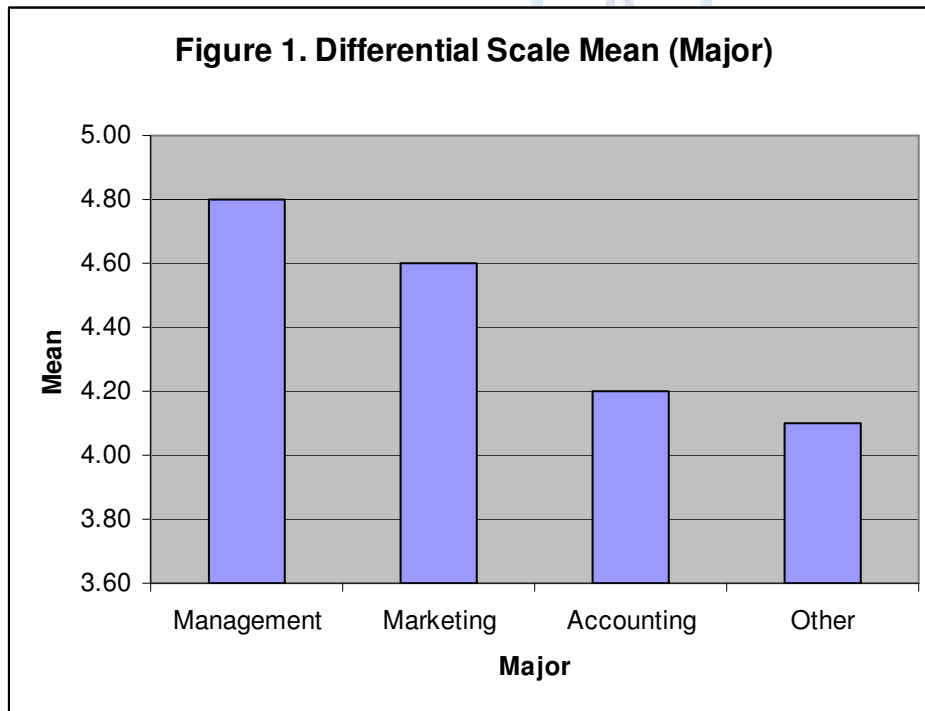
Major

In Table 4, the predominant majors are listed with their mean responses to the 10 differential scale variables itemized in Table 2. Mean responses across these items were determined, identified by major, and compared to the overall mean (4.6). Although the standard deviation does not represent statistically significant differences, the "Other Major" category suggests a less favorable perception of group work than the "Management," "Marketing," or "Accounting" majors. This difference is visually depicted in Figure 1.

Table 4. Student Responses to Differential Scale Items by Major

Major	% (n)	Mean	SD
Management	35 % (n = 32)	4.8	0.141
Marketing	33 % (n = 30)	4.6	0.000
Accounting	12 % (n = 11)	4.2	0.283
Other Major*	20 % (n = 19)	4.1	0.354

*Note: This category includes Business Administration, Business Education, Economics, MIS, and Finance majors with no more than five (5) students representing an individual major.

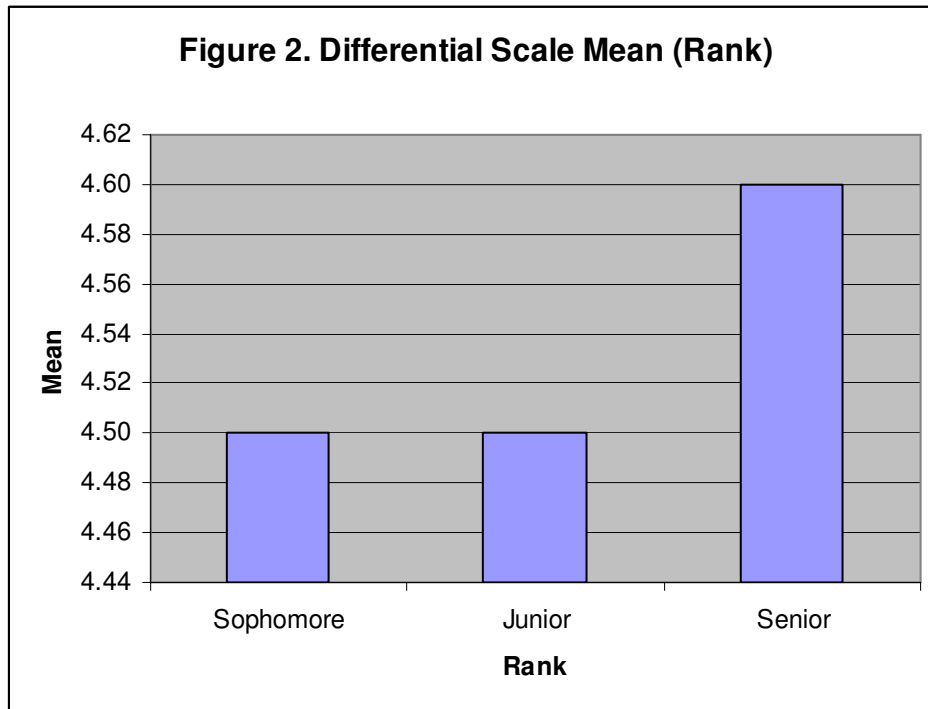


Rank

The same procedures were used to assess differences among rank. As the data in Table 5 indicate, students at all three levels (senior, junior, and sophomore) represent means consistent with the overall mean (4.6). The similarities are visually displayed in Figure 2. Although seniors report a higher mean response, the difference was not statistically significant.

Table 5. Student Responses to Differential Scale Items by Rank

Rank	% (n)	Mean	SD
Sophomore	9 % (n = 8)	4.5	0.071
Junior	38 % (n = 35)	4.5	0.071
Senior	53 % (n = 49)	4.6	0.000

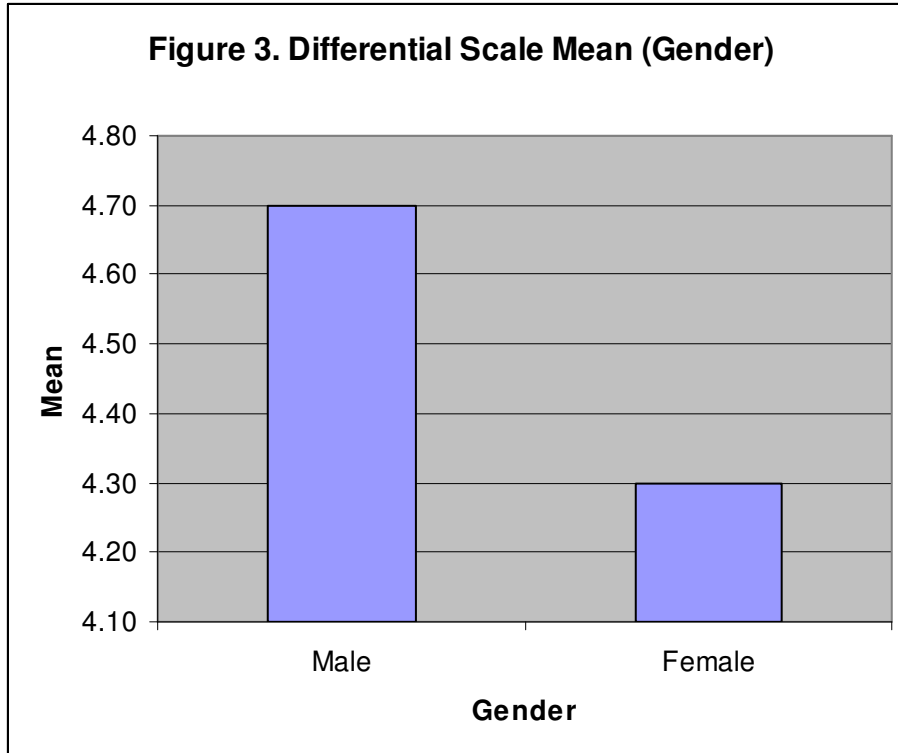


Gender

Finally, students’ perceptions of group work as indicated in their responses to the differential survey items by gender did not reveal any statistically significant findings. However, male students (mean = 4.7) do seem to perceive group work more favorably than female students (mean = 4.3). Table 6 includes the means and comparative standard deviations for male and female students. Figure 3 displays the difference visually.

Table 6. Student Responses to Differential Scale Items by Gender

Gender	% (n)	Mean	SD
Male	58% (n = 54)	4.7	0.071
Female	42% (n = 39)	4.3	0.212



Discussion

Overall, the findings provide insights for instructors interested in improving their students' collaborative experiences. Some of the information elicited from the students' responses clearly parallels the often addressed negative feelings students have about participating in group projects. However, the most significant finding – that group projects matter to students – demonstrates that students' attitudes about group work can change. This finding provides an excellent starting point for instructors who want to encourage positive group experiences in their classrooms and increased collaborative skills for their students. Pre-group instructional methods can encourage students to embrace the idea that collaborative experiences are helpful to their personal and professional development and can set the stage for positive perceptions of group work in general. This findings support the previously described research of Holmer (2001) and Ettington and Camp (2002).

The students who received pre-group instruction valued the collaboration experience more than the control group; therefore, the pre-group instruction had an effect. The question becomes how the pre-group instruction could have been more significant. Potentially, it could have had more of an effect if the instruction was emphasized throughout the semester. If students are exposed to group dynamics, effective communication, and personality styles throughout the semester in the form of mini-projects leading up to a larger, more comprehensive project, they may realize that group work is important and that it can be a positive learning experience.

When preparing for class and exams, students may label as "important and meaningful" only those class experiences in which relatively large amounts of time were

spent. Therefore, more emphasis on collaborative efforts (especially in business courses) is crucial. Mini-projects could include, but are not limited to, group work in class (cases, debates, etc.), short-term out-of-class assignments/projects, and weekly tasks to be handled by groups that work together throughout the semester. In such instances, the mini-projects may be completed with group members who work together for the end-of-semester group projects. Students would then have several instances to experience and manage group dynamics. In essence, more opportunities to engage in collaborative efforts in the classroom could foster those desired corporate skills of interacting efficiently and collaborating effectively with coworkers.

To provide pre-group instruction that both facilitates students' increased collaborative skills as well as enhances students' perceptions of the group experience, instructors are encouraged to establish pre-group instruction methods early in the course and practice group dynamics, effective communication strategies, and issues related to personality styles throughout the course through mini-projects before assessing students' large-scale collaborative work. If necessary, faculty members should seek faculty development opportunities in group project instruction to give students the best chance at success and positive collaborative experiences.

Teaching Resources

As students individually and collectively become better versed in collaborative skills, they should be less likely to prefer to work alone. Their experiences of teamwork as an effective and efficient work process should encourage them perceive collaboration as a necessary skill for their future success. In combination with pre-group instructional practices, an awareness of teaching resources will help instructors integrate positive collaborative experiences in the classrooms. The following resources can help instructors stay abreast of additional collaborative research:

- The Free Management Library offers updated content and learning strategies related to group development, theoretical models, and team building exercises (http://www.managementhelp.org/grp_skill/theory/theory.htm).
- The University of California at Berkeley sponsors the Teaching Guide. Although this resource was originally developed for graduate student instructors, the information provided about facilitating group work in discussion sessions includes examples of many proven instructional strategies (<http://gsi.berkeley.edu/resources/discussion/groupwork.html>).
- Several online sites provide rubrics for collaborative work. Examples include, but are not limited to, San Diego State University's Collaborative Rubric available at <http://edweb.sdsu.edu/triton/tidepoolunit/Rubrics/collrubric.html>, the Louisiana Voices Educator Guide's Rubric for Collaborative Group Fieldwork Research available at http://www.louisianavoices.org/Unit9/edu_unit9w_colab_group_fie.html, and the RubiStar Collaborative Work Skills Rubric available at <http://www.eiu.edu/~readctr/800WebQuests/Clappweb/Group%20Work%20Rubric.htm>. Instructors are encouraged to modify these examples as needed to best fit their assigned collaborative projects, align with their learning objectives, and meet the needs of their students.

Future Research

The need to develop students' collaboration skills is increasingly important to ensure their competitiveness in this dynamic, ever-changing business environment that requires effective group work (both in person and via teleconference). To that end, educators must be thoughtful and creative in their approaches to prepare students and in their search for techniques. Given that significance was found with regard to pre-group instruction, the remaining results of the study should be interpreted with the following limitation in mind: The study was based on four classes in one semester at a single institution. Replicating the study with a larger sample and over several semesters would shed additional light on the best practices for preparing students for effective team projects leading to improved collaborative skills.

Another interesting direction for research is a longitudinal study examining freshmen's perceptions prior to participating in collegiate group work and tracking their perceptions throughout their undergraduate experience. Such a study may allow the observance of the effects of pre-instruction prior to students' views becoming jaded from previous group experiences. These students could be surveyed at different times during their college years. Comparison studies are also a possibility as these students could be compared to students who do not receive pre-group instruction.

In conclusion, this study may provide the foundation for more purposive faculty development opportunities relating to pre-group instructional methods that support successful collaborative projects. Faculty are encouraged to gauge their students' current collaborative skills, provide pre-group activities that will support and enhance assigned group work, and monitor students' progress throughout assigned projects. Both faculty and their students will ultimately benefit by being better prepared to support collaborative experiences and participate as effective team members.

References

- Anderson, J. R. (2005). The relationship between student perceptions of team dynamics and simulation game outcomes: An individual-level analysis. *Journal of Education for Business, 81*(2), 85–90.
- Bearden, W. O., & Netemeyer, R. G. (1999). *Handbook of marketing scales*, Thousand Oaks, CA.: SAGE Publications, Inc.
- Blowers, P. (2003). Using student skill assessments to get balanced groups for group projects. *College Teaching, 51*(3), 106–110.
- Ettington, D. R., & Camp, R. R. (2002). Facilitating transfer of skills between group projects and work teams. *Journal of Management Education, 26*(4), 356–379.
- Fairfield, K. D., & London, M. B. (2003). Tuning into the music of groups: A metaphor for team-based learning in management education. *Journal of Management Education, 27*(6), 654–672.
- Free Management Library (2008). *Group dynamics: Basic nature of groups and how they develop*. Retrieved June 15, 2008, from http://www.managementhelp.org/grp_skill/theory/theory.htm
- Holmer, L. L. (2001). Will we teach leadership or skilled incompetence? The challenge of student project teams. *Journal of Management Education, 25*(5), 590–605.

- Livingstone, D., & Lynch, K. (2000). Group project work and student centered active learning. *Studies in Higher Education, 25*(3), 325–345.
- Luca, J., & Tarricone, P. (2001). Does emotional intelligence affect successful teamwork? *Proceedings of the Annual Conference of the Australasian Society for Computers in Learning in Tertiary Education, 18*(December 9–12).
- McGraw, P., & Tidwell, A. (2001). Teaching group process skills to MBA students: A short workshop. *Education + Training, 43*(3), 162–170.
- Oitzinger, J. H., & Kallgren, D. C. (2004). Integrating modern times through student team presentations: A case study on interdisciplinary team teaching and learning. *College Teaching, 52*(2), 64–68.
- Oxford Centre for Staff and Learning Development at Oxford Brookes University, United Kingdom (2007). *Characteristics of a group: Communication*. Retrieved September 10, 2007, http://www.brookes.ac.uk/services/ocsd/2_learnthch/small-group/sgt1.5.html
- Payne, B. K., Monk-Turner, E., Smith, D., & Sumter, M. (2006). Improving group work: Voices of students. *Education, 126*(3), 441–448.
- Tracom (2006). *Social style model*. Retrieved June 30, 2008, http://www.tracomcorp.com/products_services/social_style/model.html



