

## Cooperative Learning in a Competitive Environment: Classroom Applications

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Many university level programs are obligated to prepare students for professional employment while simultaneously providing the academic rigor consistent with university level study. These programs include but are not limited to: commercial recreation, sport management, therapeutic recreation, marketing, accounting, and law. Consequently, an education in any of these areas has to not only foster student learning, but also enhance opportunities for students' professional development. Professional studies classrooms provide exceptional opportunities to facilitate team-like cooperation in a competitive business-like environment. Instructors can utilize these unique instructional opportunities in order to maximize student learning and professional development, preparing them both to cooperate and compete by structuring learning activities that require them to cooperate in teams that compete against one another. This paper presents a rationale for using cooperation and competition in higher education classrooms and then provides an example of the application of these techniques in a capstone commercial recreation class.

Many university level programs are obligated to prepare students for professional employment while simultaneously providing the academic rigor consistent with university level study. These include but are not limited to commercial recreation, sport management, therapeutic recreation, marketing, accounting, and law. Consequently, an education in any of these areas has to not only foster student learning, but also enhance opportunities for students' professional development. Employers report that 80% of all employees in America work in groups identified as teams (Caroselli, 1998). Therefore, it is critical that professional studies students develop the requisite skills to succeed in a team-oriented environment within the competitive environment of commercial industry.

Professional studies classrooms provide exceptional opportunities to facilitate team-like cooperation in a competitive business-like environment. Instructors can utilize these unique instructional opportunities in order to maximize student learning and professional development, preparing them both to cooperate and compete by structuring learning activities that require them to cooperate in teams that compete against one another. While neither cooperation nor competition is inherently good or bad in supporting the learning process, how instructors employ these strategies in order to enhance student learning determines their value in preparing well-educated soon-to-be professionals (Ediger, 1996). A properly balanced approach combining cooperation and competition in fostering student learning best serves students as they are able to achieve academic success both in concert with others on their team and on an individual basis within the team (Ediger, 1996). Therefore, by employing both competition and cooperation, instructors can enhance learning opportunities for students pursuing professional careers.

Competition has been defined as "a social process that occurs when rewards are given to people on the basis of how their performances compare with the performances of others doing the same task or participating in the same event" (Coakley, 1994, p. 78). Each of three forms of competition – direct, indirect, and cooperative – hold both positive and negative components (Graham, 1976). Cooperation also includes potentially positive and negative aspects. Cooperation has been defined as "a social process through which performance is evaluated and rewarded in terms of the collective achievements of a group of people working together to reach a particular goal" (Coakley, 1994, p. 79).

Both competition and cooperation potentially impact student performance. For example, Triplett (1898) found that cyclists performed tasks faster when racing with or against others than when they functioned alone, indicating that the effects of competition on performance were favorable. Lam, Yim, Law, & Cheung (2004) found that competition had a positive impact on performance goals and learning motivation in the classroom. Dettmer (2004) posited that "learning by losing" was a valuable process for students preparing for professions where working under pressure was necessary. However, Deutsch (1949) suggested that cooperation embodies positive interdependence, competition reflects negative interdependence, and found that college students solved more problems in a cooperative environment than students in a competitive environment.

### *Cooperative Learning Environments*

Cooperative learning in college is based on the theories of cognitive development, behavioral learning, and social interdependence (Morgan, 2003). Cognitive

development is an outcome of cooperative learning, wherein constructivist knowledge development and transformation result from collaborative attempts to discover, comprehend, and decipher (Piaget, 1965; Vygotsky, 1978). Behavioral learning theory suggests that students will commit to participation in team efforts if they are rewarded for that participation, and are likely not to commit if no rewards are evident (Morgan, 2003). Therefore, both individual and team rewards should be evident in cooperative learning environments, wherein rewards for participation in team productivity are purposeful (Johnson, Johnson, & Smith, 1998). Evidence suggests that cooperative learning yields increased efforts among students, more positive interpersonal relationships, and improved mental health when compared to purely individualistic learning (Johnson, Johnson, & Holubec, 1994).

Parrenas and Parrenas (1993) suggested that cooperative learning facilitates higher student achievement. Properly applied cooperative strategies will also contribute to student socialization within the culture of professional industry, better preparing them for the expectations of the professional world (Caroselli, 1998). Student teams can employ cooperative learning techniques such as group brainstorming, which in one study generated double the number of ideas when compared to individual brainstorming (Osborn, 1957). Working in teams in the classroom will encourage flexibility and adaptability and promote inclusive interpersonal relationships, thus aiding in the transition from college student to professional in an increasingly diverse commercial industry (Kohn 1992). Democratized participation in teams will also enhance opportunities for leadership among future managers. Manzer and Bialik (1997) concluded that team learning allowed for the coverage of more course content in a shorter time, with students displaying increased class attendance and a greater orientation to course goals.

Certainly, successful cooperative learning experiences in the classroom require as much care in their development and implementation as do traditional individualistic and competitive experiences. Cooperative and collaborative learning experiences require that instructors attend to the formation of the group, the composition of the group, the dynamics of the group, the assessment of student work, and the design of group tasks (Ventimiglia, 1994). Individuals diverse in backgrounds, goals, skill sets, and interests will be required to collaborate with each other in activities directed toward group outcomes. For example, in planning, implementing, and controlling a strategic marketing plan, Shank (2002) noted that effective communication and “interacting well with others within the sports

organization” (p. xx) is essential. Principles for fostering success in a cooperative professional studies classroom include distributing student leadership, grouping heterogeneously, encouraging positive independence, facilitating social skills acquisition, and allowing for group autonomy (Parrenas & Parrenas, 1993).

Kohn (1992) contended that, in cooperative environments, learning doesn’t merely happen to an individual, but through them as well. Indeed, the Chinese philosopher Lao-Tzu’s (~600 B.C.) contended that a leader is best whose followers say, “we did it ourselves.” Therefore, engaging in professional preparation activities in which students invest themselves is advantageous.

Students intending to embark on professional careers must learn how to work collectively to achieve appropriate objectives. Effective professional preparation for managers, marketers and practitioners fosters well adjusted individuals who are able to contribute to the team in order to accomplish shared goals (Baris-Sanders, 1997).

Classroom content taught through cooperative instructional strategies, with heterogeneous teams in an inclusive environment, encourages positive student interactions in pursuit of team goals (Dyson & Grineski, 2001). While realizing the many benefits of cooperation, team learning does allow for appropriate inter-group competition as well. An understanding and careful application of competition in the professional preparation of students may serve the interests of our student populations as well as industry in general. Similarly, when properly employed, cooperation that emphasizes the need for each student’s contributions to achieve collective goals can have very positive impacts on student learning (Dyson & Grineski, 2001). Therefore, an approach that balances cooperation and competition will prove beneficial to students in professional preparation programs. Structuring a problem-based competitive project, wherein cooperative student teams compete against one another, is one way instructors can ensure both cooperative and competitive learning opportunities for students. Johnson & Johnson (1999) recognized the necessity to integrate cooperative learning and competitive individual learning. Wynne (1995) promoted a synthesized cooperation-competition instructional strategy combining positive aspects of both cooperative learning and motivational competition using inter-group competition between collaborative teams. When properly employed in a competitive environment, cooperation emphasizing each individual’s contributions toward collective goals can have very positive impacts on student learning (Dyson & Grineski, 2001).

### *Problem-Based Learning*

Problem-Based Learning (PBL) is “learning that results from the process of working toward the understanding or resolution of a problem” (Barrows & Tamblyn, 1980, p.18). According to Boud (1985) “the principle idea behind PBL is that the starting point for learning should be a problem, a query, or a puzzle that the learner wishes to solve” (p. 13). Schmidt (1993) identified cognitive effects, such as analysis, activation and elaboration of prior knowledge, structuring knowledge, social construction, contextual learning, and curiosity, in the acquisition of knowledge through PBL. Jonassen et al. (1995, 1999) noted the constructivist learning environment created with PBL, which empowers students and promotes both meaningful and useful learning. Problem-Based Learning (PBL) can be employed in classrooms through instructor-guided team competitions. The use of PBL teams in professional preparation classrooms can enhance intragroup collegial cooperation and collaboration as well as intergroup competition outcomes (Amos & White, 1998). PBL can enhance both team and individual outcomes. In PBL teams, students who may not be at the top of their class based on traditional measures of academic accomplishment have the opportunity to make meaningful contributions to the team, such as organizing tasks, managing conflicts, negotiating agreements, and facilitating interpersonal communication. Beyond the academic benefits of the problem solving process, personal skill development is also enhanced. For example, teamed professional preparation students engaged in PBL might participate in dialogue that entertains differing points of view, wherein they must suspend prejudice. Students may also be required to manage their emotions while working with colleagues, controlling anger or moderating frustration as they resolve conflicts. In order to maximize their professional development, students should be required to collaborate in pursuit of group outcomes through participation on cooperative teams in a competitive environment. Some of the characteristics desired in new hires by employers were presented by Watson (2002) who referenced the Wingate Conference of 1994. The attributes he discussed included 1) high level communication skills, 2) the ability to define problems, gather and evaluate information, develop solutions, 3) the ability to work with others, and 4) the ability to use all these skills to address problems in a complex real-world setting. Tjosvold, Sun & Wan (2005) found that open discussion and a problem solving orientation strengthened interpersonal relationships among group members and fostered exploration, integration and the adoption of alternative ideas. Michaelson, Knight & Fink (2002) suggest that team based learning is

especially appropriate in courses that emphasize problem solving and the application of the course content

### Combining Cooperation and Competition

Cooperation and competition are very different ways of approaching the act of learning which, when combined, provide potential benefits to students (Johnson & Johnson, 1999). The key to maximizing opportunities for student learning in sport management classrooms is the successful development of instructional strategies and practices that foster both competition and cooperation. Longstanding authorities on cooperative learning, Johnson and Johnson (1999), recognized the necessity to integrate cooperative learning with competitive and individualistic learning.

Cooperation-competition is an instructional strategy combining components of cooperative learning with the positive aspects of motivational competition through inter-group competition between collaborative teams of sport management students. Sport management instructors should purposefully group students into heterogeneous or homogeneous teams. The teams compete in pursuit of positive individual and team outcomes in the problem solving process, which can be structured in such a way as to allow for both team and individual grades (Wynne, 1995). “There is considerably more research needed to clarify the conditions under which competitive or individualistic efforts may have more powerful effects than cooperation” (Johnson & Johnson, 1998). The intent of this project was to forward Johnson & Johnson’s (1998) notion that more work is needed to gain insights into the conditions under which competitive and cooperative efforts are effective. Tauer and Harackiewicz (2004) found that by combining cooperative group learning with inter-group competition intrinsic motivation of participants consistently improved. The findings suggest that a combination of cooperation and competition facilitates motivation, enjoyment, and performance of participants. The implications for professional preparation indicate the student benefits of combining cooperative team learning strategies structured in an inter-group competition.

### Experiential Learning

When utilizing Cooperation-Competition in professional preparation classes, the application of team projects and problem-based cases is essential in affording opportunities for students’ experiential learning. The very essence of student learning is grounded in the experiences they are afforded in their respective sport management classes and programs. Learning occurs whenever an experience (or event) is

transformed through either internal reflection on the event or active manipulation of the external world (Kolb, 1984). Employing “real world” cases in sport management content areas affords a valuable team problem solving experience and supports the advantages of the cooperation-competition model (Kinzie, Hrabe, & Larsen, 1998). The purpose in utilizing cooperative team learning strategies in a genuine, competitive, sport-oriented environment is grounded in the benefits of this balanced learning experience. Experiential Learning (EL) is an instructor-facilitated, student-centered venture that plays a role in a comprehensive education (Kraft & Sakofs, 1988; Pike, 2003). Learning occurs through internal reflection on an experience, or through active manipulation of the external world (Kolb, 1984). Experiential Learning can be employed as a traditional practitioner-supervised internship, or as a faculty-supervised meta-discrete practicum or internship (Southall et al., 2003). Either of these experiences can be done independently or as a component of a traditional class.

#### Cooperation and Competition in the Real World

Competition is evident throughout our society, our lives, and our recorded history. It transcends time and place, as well as all manner of people (Graham, 1976). The social institution of sport embodies cultural values wherein winning is viewed as success and conflict is institutionalized through competitive contests (Eitzen & Sage, 2003). The business world and, of course, sport as a microcosm of society, are fundamentally competitive environments (Eitzen & Sage, 2003). However, many businesses are utilizing techniques such as self-managed teams, staff support groups, production departments, and team outcome-based rewards in an attempt to make every employee a contributor (Baris-Sanders, 1997). Task cohesion within a group has been positively correlated with improved performance (Anshell, 2003; Carron, 1984). In the end, it is incumbent on professional preparation programs to facilitate educational opportunities that enable our students to become both good competitors and cooperative teammates (Midura & Glover, 1998). The following application in commercial recreation preparation presents a method intended to enhance the instructor’s ability to achieve this dualistic objective through developing a cooperative learning team that functions within a ‘real world’ competitive business environment.

#### Commercial Recreation Classroom Applications

One specific cooperative-competitive learning activity that can be used in a recreation management

capstone course is a group project wherein students develop and present a grant proposal. The specific parameters of the plan are determined after consultation with a “real world” organization. For example, the organization’s Director of Development could be consulted to determine organizational needs and to establish the specific scope of the grant writing plan. An example of a specific assignment would be for students to develop a grant proposal plan for the purpose of developing a community skate-park. This may include identifying the primary stakeholders (e.g. parents, children, community parks and recreation administrators, and funding sources). Ultimately, the organization’s director, who was consulted in determining the organizational needs, would also be included in the panel evaluating the students’ group presentations of their proposals.

It should be noted that this type of assignment has been effectively employed by the authors in a variety of classes outside of commercial recreation as well, including sport management classes developing organizational structures, research methods classes developing a questionnaire, facilities classes developing risk management plans, and event management classes developing components of a comprehensive event plan. Regardless of the specific course content, we believe that these strategies for implementing a cooperative learning assignment in a competitive situation enhance students’ learning opportunities.

The objectives of these cooperative learning experiences are to not only develop students’ content knowledge, skills, and dispositions, but also their application through working in a competitive team environment. Students are encouraged to pursue established standards of performance, to recognize various measures of success, and to transfer these concepts in this and future professional applications. For example, securing a good grade in a commercial recreation class is an important measure of success for students academically, whereas securing funding through grant writing is a significant measure of success in their professional development as a commercial recreation professional. To maximize the outcomes, the expectations for student performance in any cooperative-competitive exercise should be presented in writing and discussed in-depth with the students prior to their undertaking the project. It is critical that the students understand that they are working together within their group, while at the same time competing against the other groups.

#### *Group Assignments*

In initially organizing a cooperative-competitive classroom assignment, the instructor should randomly assign class members into groups. Randomly assigning

students to groups does not mean haphazardly assigning them. Random assignment in this instance means using scientific random sampling procedures to assign them to groups. Of course, it is also possible to stratify each group to ensure heterogeneity or homogeneity; although the benefits of working with diverse groups are lost with homogeneous grouping. Therefore, random assignment is preferred. Depending on the project parameters, groups larger than about five tend to be problematic for students. Groups require roles to be both integrated and clearly delineated, which becomes more difficult in larger groups. Also, students' schedules often conflict as groups grow in size.

Initially it is common for students to be somewhat resistant to being assigned into groups. However, explaining that employees in organizations rarely get to determine their own work groups and are often put in situations where they have to work with people they don't know and in some instances may not particularly care for, the students come to understand, accept, and benefit from the situation. Also, by utilizing random assignment in multiple projects, or by employing self and peer evaluation of individuals and teams, students are less concerned about getting stuck with an underachiever in their group.

Random assignment of class members into groups is beneficial in a number of ways. Varying group membership leads to greater overall class cohesion. Class members who don't know, or are unfamiliar with each other are eventually required to work together. In many instances students discover talents and abilities in their peers that would have gone unrecognized had they been allowed to organize in their regular comfortable groups.

#### *Awarding the Contract*

In the grant writing example, students are aware of the procedure for awarding of the contract (declaring the winning group) at the initiation of the competitive project. A panel of experts is used to determine the winner of the competitive presentations. This panel can include the instructor of the class, a faculty member not associated with the class, a practitioner from the field (the aforementioned Director of Development), or others with expertise specific to the exercise. The panel is formed of diverse experts to ensure a realistic and objective evaluation of the teams' presentations. While awarding of the contract is determined by the panel, the determination of the grade remains solely the responsibility of the instructor. This ensures a consistent standard of performance for each assignment that is independent of the panel's configuration. The instructor should impress upon students that their appearance and the professionalism of the presentation are essential for success. In addition, it is possible for

both the content and its presentation to be factors taken into consideration in awarding the contract.

#### *Equitable Presentation Circumstances*

To ensure fair and equitable presentation circumstances, it is preferable to have each group present without the other groups present. This eliminates the possibility of a group benefiting from previous groups' presentations. We have found it useful to video tape the presentations and then view each presentation as a class at a later date. This allows students to view and evaluate their individual and team performance during the presentation. Often, few students have had the opportunity to see themselves making a presentation. This also allows less successful groups the opportunity to see what the winning group did in order to be awarded the contract. Allowing all students to reflect on each group's presentation generally takes the mystery out of the panel's decision making process. Students can see where one team fell short, or where another excelled. A brief instructor led summary of the panel's selection rationale is especially useful in conjunction with the video reviews.

#### *Student Reactions and Results*

Students may initially resist participating in cooperative-competitive exercises because they don't like group work or they want to pick their own groups. Students can also be apprehensive about the competitive nature of the exercise and its impact upon their grades. Sharing information on the grading process with students in advance, including an explanation of the competitive nature of traditional grading, fosters an environment wherein students can maintain focus on the task, rather than the consequential grade. Also, the competitive nature of work in the "real world" should be discussed, and is especially effective if it is facilitated by a professional from the field. Instructors who implement cooperative-competitive exercises can also include traditional activities and grades as well. In the end, most students come to genuinely appreciate the applied cooperative-competitive exercise as a valuable learning experience.

In the authors' experience with this type of assignment it is not uncommon for students' academic performance in cooperative-competitive team activities to exceed the initial expectations of the instructor and the panel. However, it is often the appearance and professionalism of the presentation that is the greatest challenge for students to master. Proactive instructor cues regarding appropriate professional dress and behaviors enhance team outcomes. For example, the establishment of time limits is essential. Instructors should then encourage students to carefully plan and

rehearse their presentation within these established time constraints. It is also important to limit the number of days between assigning the project and group presentations. Our experience in using this type of assignment suggests that students will spend inordinate amounts of time on this type of project unless limits are set by the instructor. The number of days students have to work on the project needs to be consistent with the value of the project in influencing their final grade in the course. In time, students come to understand how to efficiently use their preparation time and display professionalism in their presentations. Ultimately, the opportunity afforded students to develop professional skills to complement their content knowledge serves both the individual student and future employers.

#### Conclusions and Implications

It is imperative that professional preparation programs afford students opportunities to maximize their professional development. There are many benefits to engaging students in a cooperative learning group activity organized within a competitive setting. The most significant benefits are to the students whose outcomes often exceed content-driven and application-based objectives. Incorporating cooperative learning in competitive environments can be accomplished across a wide range of curricular content, such as financial planning, event management, and facility management, to name a few. While this specific activity was in an upper level commercial recreation course, the exercise is appropriate for a variety of classes at a variety of diverse institutions. In addition to the course content options, variations in class level, topic preference, and the involvement of outside organizations can enhance the many diverse forms that cooperative learning in a competitive environment can assume in professional preparation.

The assessment of student performances is also an arena wrought with options. An array of activities beyond the awarding of the final contract can be employed. Having students participate in assessing their own and/or others' participation can further foster their active involvement in the learning process. For example, formal appraisal of team and member performance by each of its members is possible. Reflective discussions, journals, and interviews can be employed. As one student stated in an anonymous course evaluation: "the competitive group assignments were a pain to start with but the third time we did one it was fun and we did a really good job (we won!)." Additionally, separate assessments of the actual proposal and the formal presentation might occur. Emphasis on the intensity of competition and level of cooperation are adjustable by the course instructor as well. For example, rewards, awards, and grades might

be de-emphasized, or the level of intra-group or inter-group cooperation might be delineated differently. Instructors can also vary the predetermined objectives. Variety in the rubrics employed in assessing the outcomes serves to customize the cooperative/competitive activity in each instance. A multitude of variations are available to enhance student learning opportunities.

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