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ON COOPERATIVE AND COMPETITIVE LEARNING IN THE MANAGEMENT CLASSROOM

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ABSTRACT

Many instructors have hailed the benefits of experiential learning in the management classroom. In this article I review these benefits and present a framework that explores how competitive and cooperative learning structures can serve as integrative and motivational tools. When used appropriately, these tools can increase a student's engagement in the learning process. Additionally, I outline how a balanced instructional approach can be created and implemented in the management classroom.

I. INTRODUCTION

Recent innovations in pedagogical techniques have led to the introduction of new instructional methods in the management classroom. These innovations include online simulation games, asynchronous instruction (e.g. email, list serves, electronic bulletin boards, podcasting, etc.), video instruction, and computer-based teaching. Additionally, textbook publishers continue to produce and push textbook add-ons that provide new and unique approaches to delivering management content. As instructors make decisions regarding which tools to adopt, it may be beneficial to review alternative instructional approaches to make sure we are creating the type of learning environment that students need. In this paper I review how instructors can teach to individual students' learning styles using alternative motivational techniques. I argue that this will engage more students in the learning process. Particularly, this paper explores the need to combine competitive and cooperative techniques to engage students with varying learning and motivational needs.

Research in the learning styles literature has recognized the importance of teaching to an individual students preferred learning approach (Kolb & Kolb, 2005a, 2005b). Abstract, concrete, reflective, experiential, and active learning are all terms used to describe alternative pedagogical approaches that fit different learning styles (Johnson & Johnson, 1998; Kolb & Kolb, 2005b). This view argues that students will learn best if the instruction is presented to them through a medium that matches their preferred learning style. This argument has received strong support in the literature

and has been adopted in many classrooms (Johnson & Johnson, 1998; Kolb & Kolb, 2005a, 2005b; McNergney & Others, 1994).

In addition to understanding student learning styles, it is also critical that instructors understand the motivational needs of students. In this article I focus on this second question. How can instructors understand and utilize the motivational needs of students to improve student learning? I exploring this question I review the motivational environment in the classroom and discuss the impact of this environment on student learning. First, I discuss the distinction between concrete instruction and experiential learning (Epstein, 1994). This is an important starting point to delineate instructional types and their impact on student motivation. Second, I discuss the differences between cooperative and competitive learning (Johnson & Johnson, 1998). This discussion points out the need for instructors to be aware of the motivational cognitions of students. Third, I discuss how these two approaches can be combined to help instructors review teaching techniques employed in their classrooms. Finally, I conclude with a general discussion on how student learning will benefit from instructors adopting a motivationally balanced teaching approach.

II. CONCRETE AND EXPERIENTIAL LEARNING

Epstein (1994) suggests that humans have two basic modes for processing information. The first mode relies on the human ability to think logically. When processing information in this mode individuals gather information, sort through details, acquire more information, categorize and prioritize this information and make conscious decisions. This mode is procedural, linear, and often scripted. The information acquired in this mode is received through transmission (Kolb & Kolb, 2005b). The information is literally transmitted from one person to another. In a classroom this mode is often used when students are given material (through a variety of mediums such as lecture or reading) and asked to master the material.

Alternatively, the second information processing mode presented by Epstein (1994) is used when individuals gather information through direct experience. In this mode, individuals acquire information through a process called transformation. As individuals have direct experience, learning is gained when they explore questions they do not yet understand. Their learning comes when they integrate new questions and find answers through direct experience. Information is not transferred from one person to another. It is created within an individual through questioning and finding answers through direct experiences. In a classroom this process is manifest, among other ways, when an instructor teaches students through the case method.

Students experience a case through reading and are then asked to integrate the information and come up with answers. As this integration occurs, students may come

to unique solutions, based on their personal knowledge and experience. They may explore new possibilities as they question and explore the possibilities found within the case. In this mode individual students may not recognize the specific information they are acquiring, but they assimilate knowledge through reflecting thinking and transforming information (Kolb & Kolb, 2005b).

Kolb and Kolb (2005b) have conducted an extensive research program focused on experiential versus concrete learning in the classroom. Kolb and Kolb describe (2005a) an experience the first author had in a management classroom. He was frustrated by some students' appearing unengaged in learning. At the time he was using traditional lecture and reading based instruction (transformation). In order to curb this problem, he attempted to teach through experiential learning (transformation). He found that the students who were previously unengaged were now engaging in the learning process. However, those who had been engaged began to withdraw. He found that experiential and concrete instruction appeal to different student learners.

Kolb and Kolb (2005b) argue that learning is most effective when students are involved in concrete and experiential learning. Applying experiential learning in the management classroom has helped instructors reach more students and allowed more students to experience new learning.

The focus of experiential learning has largely been on the individual level. It has focused on the student's experience with the instructor and the learning environment. An assumption of this theory is that if students are taught, or acquire information, in the method and through the medium they prefer their motivation to learn will increase. This has been supported by research a large a growing body of research (Kayes, Kayes, & Kolb, 2005).

While experiential learning theory has clearly advanced our understanding of individual student needs, it has yet to fully uncover methods that engage students who are not already interested in learning. Material can be presented to them through concrete and experiential learning, but some students may have little interest in learning. Once these students are interested in learning, we can keep them involved through employing methods and mediums detailed in experiential learning. But, how can we engage uninterested students and spark their initial curiosity? One potential avenue is through the use of competitive and cooperative learning. These learning structures have been found to engage a greater number of students in the learning process (Beersma et al., 2003; Hedeem, 2003; James, 1978; Johnson & Johnson, 1998; McNergney & Others, 1994; Nemerow, 1996; Owens & Others, 1997; Sabato, 1989).

III. COOPERATIVE AND COMPETITIVE LEARNING

In defining these two approaches, Beersma et al (2003) states that “when a situation is structured cooperatively, there are positive correlations among team members’ rewards, but when a situation is structured competitively, there are negative correlations among team members’ rewards” (Beersma et al., 2003). Johnson and Johnson (1994) suggest that an effective classroom must have the right mix of cooperative learning and competitive learning (along with individualistic learning). They further define competitive and cooperative activities by suggesting that cooperative learning consists of five elements. First, students must have “positive interdependence” in that each student believes that their fate is in fact linked to the fate of the cooperating students. Second, students must have “promotive interaction” in that they are forced to work together and cannot accomplish the task at hand alone. Third, each student must be held “accountable.” Each student must receive an evaluation that is known to the individual and the group. Fourth, students must be taught “interpersonal and small-group skills.” And fifth, students must work through “group processes” in that the group discusses how well they are doing and what they can do to improve. Cooperative learning encourages students to work with and learn from each other (Johnson & Johnson, 1998).

In the business world, graduates often work on teams of many styles and varieties. These cooperative activities in the management classroom can prepare them for this experience and ground them in the importance of being a team player.

Additionally, students may engage in learning because they enjoy cooperating with others. For those students who are not necessarily interested in the content itself, incorporating cooperative activities may spark their initial engagement and encourage learning.

Alternatively, competitive learning structures place students against each other fighting for results. Johnson and Johnson (1994) identify competitive learning as

Figure 1:
Learning Activities and Characteristics of Students

	Concrete	Experiential
Cooperative	Motivated students who prefer to learn through direct instruction	Motivated students who prefer to learn through direct experience
Competitive	Competitive students who prefer to learn through direct instruction	Competitive students who prefer to learn through direct experience

having the following elements: students must, “recognize their negatively linked fate ... strive for differential benefit... have a short term perspective... develop a relative identity ... (and) recognize the relative causation of winning or losing (Johnson & Johnson, 1998).” In a competitive environment, students judge their abilities to master content, skills, and knowledge relative to their competitors. Competitive learning, like equity theory (Adams, 1965; Blau, 1964; Homans, 1950; Leventhal, 1980) uses relative judgments as a source of motivation.

Similar to a cooperative learning structure, employing competitive learning structures has the potential to engage students who otherwise may remain uninterested and unengaged. When students are pitted against each other their competitive instincts can encourage them to increase their engagement and involved in the learning process. Particularly, students who may not be initially inspired by the content may begin to be interested once they have engaged in the learning process through competitive and cooperative learning structures.

Many instructors encourage students to participate in study groups, share class notes, discuss elements of a case study, and/or work together to solve a business problem. Each of these approaches may encourage cooperative learning. Alternatively, many instructors use competitive approach when they introduce activities such as games and simulations that place student outcomes or student group outcomes against each other.

IV. INSTRUCTIONAL APPROACHES

As instructors prepare their lesson plans and activities, it may be worth identifying which learning structures they use and why they use them. This can be done by creating a 2x2 matrix using concrete and abstract learning on the horizontal axis and cooperative and competitive learning on the vertical axis. Instructors can then identify which of their course activities fit in each box. Interestingly, many teaching techniques can fit in several of the categories depending on how the activity is structured.

V. CONCRETE – COOPERATIVE METHODS

Concrete – cooperative activities are those that rely on planned, skill and content acquisition and positively link student outcomes. Students are required to gather information and make conscious decisions based on the information provided in an environment where they are required or encouraged to help each other in the learning process. In implementing concrete-cooperative teaching in a management classroom, an instructor could divide students into groups and ask them to help each other master the ethical implications of questions in an employee interview. Group members would be encouraged to discuss what questions are legal and those that are

not. They could also be encouraged to critique each other's arguments and evaluate their ethical value. In an effort to link the student's fate to each other, the instructor could require a large number of responses which would encourage student involvement. All students could be required to account for learning specific pre-planned outcomes (concrete) while supporting the learning of others (cooperative).

Concrete-cooperative learning will be particularly attractive for students who enjoy working with others and are encouraged by the support others give them when they learn. Also, students who are motivated to learn and work will likely participate in cooperative activities that are both cooperative and concrete. Alternatively, students who are not motivated may not actively participate and students who prefer to learn alone may not engage in a cooperative environment. Social Loafing may be a particular problem in these type of activities (Dineen, 2005; Kayes et al., 2005).

VI. EXPERIENTIAL – COOPERATIVE METHODS

Experiential-cooperative activities are characterized by student outcomes that are positively liked and individual knowledge that is transformed through participation in new direct experiences. To implement an experiential-cooperative activity, an instructor could assign students and ask them to read a case-study regarding employee discrimination in the workplace. Students could then be required to role play the discrimination case and discuss alternative processes and outcomes. As students read through the details, it is likely that the students will view the company and the details of the situation in a unique light. Additionally, as they recreate the case through role-play, the students will likely reflect on experience they have had and information they have learned (abstract learning). A role-play would require students' outcomes and experiences to be positively interdependent (cooperative learning). As this reflection takes place, students will likely transform information they have learned into better developed and more grounded ideas. Indeed, each student will have a set of life experiences and knowledge that will lead the student to explore a unique learning experience.

This experiential-cooperative approach will be enhanced as students are invited to share their reactions with others and discuss their reaction to the details. Students will learn how and why others react perceive the case the way that they do. Also, students will learn unique content from the experience due to the individual differences between them. Experiential-cooperative methods of instruction are well suited for students who are hand-on learners who like to think abstractly and learn from reflective thinking. Students who enjoy cooperation and group activities will also gain from the interaction and supportive cooperative environment. However, students who think concretely and are inherently competitive may not learn as well in these activities and may be less inclined to participate.

VII. CONCRETE – COMPETITIVE METHODS

Concrete-competitive instruction is characterized by learning activities that focus on concrete and planned learning by students in which their outcomes are placed in a position opposing another student or student group. These activities are characterized by using competition as a motivator to encourage student engagement in the learning process as they master content that is transferred to them. One approach to implement a concrete-competitive activity in the classroom is to require students to master the content in one area of management such as performance appraisal evaluation types. Students could be required to present their mastery to the class in an oral presentation. Several students could be given the same topic and told they are to vie for position in a forced grading distribution. This compels students to master material through concrete instruction and it uses competition as a motivational tool. Concrete-competitive learning is particularly welcome by students who like to learn prepared and scripted information and students who thrive on relative rankings. However, students who prefer to think abstractly, learn through experience, and are motivated to by cooperating with others will likely find concrete-competitive methods of instruction somewhat frustrating and even demeaning (Kohn, 1993; Pfeffer & Fong, 2002).

VIII. EXPERIENTIAL – COMPETITIVE METHODS

Experiential – competitive instruction is characterized by students, whose outcomes are negatively linked, learning through direct experience. Instructors could use this approach by requiring students to interview a manager about the human resource system used by the organization. Students could then be required to prepare paper a competitive paper on the interview. These papers would then be reviewed by fellow students and rated in terms of the quality of the manager and the quality of the paper. Indeed, this would force students to learn experientially through a competitive experience. This experiential interview would lead students to explore territory and have experiences that are direct and new in which they would be motivated by the competition to prepare the best paper in the class. Additionally, this process would facilitate students learning new material through the transformation of knowledge they are applying to a new situation. Learning will not be concrete; there may not be one best way to select a manager and conduct an interview. Indeed, information they have learned and experiences they have had will be transformed into new knowledge with this fresh experience and motivation will be directed through competition. Activities of this type are particularly suited for students who enjoy learning through experience and are motivated by competition.

IX. LEARNING STYLES AND MOTIVATION STRUCTURES

Just as some students may prefer to learn through experiential instruction and others prefer concrete instruction, there are students who are highly motivated by cooperative activities and those who need competitive motivation to engage in the learning process. How then can instructors improve their classroom teaching approach through using cooperative, competitive, experiential, and concrete learning in the management classroom?

If instructors will categorize the pedagogical techniques, they currently use within the four categories identified above, it is likely that the instructor could find an instructional method that he or she is not employing. Adding instructional techniques from the categories that are not represented in the current classroom curriculum will engage more students in the learning process in turn will increase learning outcomes.

X. A BALANCED APPROACH

An example of a balanced approach to instructional techniques is shown in figure 2. This example includes the following techniques that all could be used in an introductory management class. First, the instructor could decide to include a concrete-cooperative exercise such as assigning student groups to master the ethical implications of legal questions in employee interviews. Second, instructors could employ experiential-cooperative learning structure when they require students to cooperatively role play a case in employee discrimination. Third, instructors could employ a concrete-competitive structure by asking students to master elements of a performance appraisal system and holding competitive case presentations on a certain topic. This is concrete instruction in which student outcomes are negatively linked. And finally, instructors can employ experiential-competitive structures by asking students to prepare a competitive paper on an interview they had with a manager. This

Figure 2: A Balanced Instructional Approach		
	Concrete	Experiential
Cooperative	A group required to master ethical implications of legal questions in an employee interview	A group review of the human resource practices within a company
Competitive	Competitive class presentations on elements performance appraisal types	Individuals interview a manager and prepare a competitive paper

example of a balanced approach would encourage students of who prefer experiential, concrete, competitive, and cooperative learning approaches to engage in the learning process at least specific points throughout the learning cycle.

XI. SUMMARY AND DISCUSSION

There are many challenges in delivering instruction in the fields of management. Particularly, in cooperative structures, social loafing can be a problem. However, if activities are structured so that the success of the group is dependent on them working interdependently, social loafing should decrease. Linking the fate of students is part of an effective cooperative activity (Johnson & Johnson, 1998). This alone may not eliminate social loafing completely but supplementing this with an individual peer evaluation can help curb the problem.

However, the only way to eliminate social loafing is to have total individual accountability which eliminates positive interdependence which is the basis of cooperative work. I suggest and have found that a balanced approach, as described in this paper, also undermines social loafing in cooperative activities. If cooperative work is the cornerstone of all classroom activities, students will learn how to exploit the social loafing potential. However, if cooperative activities are only a piece of the instruction and they are curbed with processes and policies that discourage social loafing, it is likely that students will be less inclined (and given less time) to exploit social loafing in cooperative learning.

Additionally, some instructors are reluctant to introduce competitive activities in the classroom due to the negative outcomes behavioral rewards (Kohn, 1993; Pfeffer & Fong, 2002). Recognizing that too many rewards, or focusing on winning rather than learning, certainly can be a detriment to a student's learning environment. It can also undermine true learning. It is incumbent on instructors to keep competition in check. Similar to social loafing, if competitive activities are the cornerstone of the classroom, only certain student will benefit, and competition and rewards will thwart learning outcomes. Competitive activities must be balanced with cooperative activities in order to provide the learning environment students need.

In this paper I present the argument that a balanced approach to instruction will serve as a motivating force for many students to engage in the learning process. Recent research has also shown that a hybrid or balanced approach actually increases the mental models that students create (Nadkarni, 2003). When students are presented with a balanced approach to instructional structure, they will be more likely to engage in parts of the learning process, and in turn develop a deeper and richer understanding of the content and experiences to which they are exposed.

While it can seem overwhelming to address each of these challenges within one classroom, by sifting through the motivational structures and teaching techniques we employ, instructors can likely find methods that will appeal to groups of students that are not engaged through traditional instruction. As instructors adopt concrete and experiential teaching techniques and use cooperative and competitive structures to motivate student learning, it is likely that student engagement in and motivation throughout the learning process will increase.

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