Team Building and Problem-Based Learning in the Leadership Classroom: Findings from a Two-Year Study

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Abstract

Leader educators know that demands on leaders of organizations are increasing, requiring different strategies of leading, for example, working in diverse and global environments, using shared decision-making, and developing effective work teams. To educate future leaders in a postmodern era, instructors must attempt nontraditional teaching methods that combine theories and practices of team leadership. With a focus on team leadership, I conducted a classroom study to investigate how to design classroom teams and experiences that would help future leaders lead teams. Three discoveries were made from this study: (a) the importance of the instructor guiding students through the processes of teaming and leading teams as well as providing the content knowledge imbedded in the course, (b) the role shifts of the instructor and students throughout the semester, (c) and the use of problem-based learning as a promising pedagogical tool in the instruction of future leaders in global, diverse, team-based settings.

Introduction

A leader has four responsibilities:
to know the self, to know the followers,
to know the task, and to know the situation.
---Chinese philosopher (paraphrased)

Organizations have undergone a paradigm shift in the way employees perform their daily tasks. Increasing demands and expectations of leaders of schools, the military, health care agencies, and business, for example, require strategies of leading, decision making and problem solving that embrace a global understanding and focus, a diverse work environment, and a team approach to work. Robbins and Finley (1995) suggest that in the organizational world teams do not work because of a variety of factors, including confused goals, unresolved roles, lack of trust, unwillingness to change, the wrong tools, and bad leadership, among other reasons. My contention is that a key factor at the root of our inability to effectively lead 21st century organizational teams perhaps may be that

we rarely truly learn to live and work as teams within the classroom and training environments that purport to develop leaders of teams. It is hoped that once future leaders learn and practice positive teaming skills in the leader classroom that they will transfer that knowledge to lead teams in diverse organizations.

Purpose

With a focus on team leadership, the purpose of this study was to investigate how to design classroom teams and experiences that would help future leaders learn to effectively lead teams. This analysis is based on qualitative participant research conducted in graduate classroom on both students and this instructor. Findings are discussed in four areas from the both students' and instructor's perspectives, based on the responsibilities of the leader noted in the epigraph. The components discussed will include findings about how to teach for understanding of: the self (students and instructor), the followers (as members of teams), and the tasks (problem solving, leading teams, presenting information), and the situation (contexts of leading, learning and teaching).

Theoretical Framework

When teaching others the knowledge and skills of leadership, an instructor has two key decisions to make. One must decide on the content of the course, based on goals and objectives, and the teaching methods to accomplish those goals. The theoretical frameworks that grounded this study are based in research on how to lead teams and the pedagogical approach of problem-based learning, an instructional strategy that has a "problem" as a starting point for learning, one that the students might face as future professionals (Bridges, 1992). Problem-based learning can be a strategy to give leaders authentic experiences either in the real world of organizations or through case practica. The authentic experiences were in the area of developing and understanding teamwork and the leading of teams.

Teaming

Simply defined, teams are "people doing something together" (Robbins & Finley, 1995, p. 10). Katzenback and Smith (1993) add, "A team includes a small number of people with complementary skills who are committed to a common purpose, performance goals, and approach for which they hold themselves mutually accountable" (p.45), and maintain that since these are the basics of a real team, if any components are missing, the team should work toward getting these key elements right. Donnellon (1996) notes a cohesive, real team compared to "a team in name only" possesses several dimensions. A real team identifies itself as a team, is truly interdependent, exhibits a low need for power, is close socially, and uses both confronting and collaborating processes when managing conflict. She contrasts the key dimensions above with a nominal team that is a functional group, is independent, exhibits high power differentiation, is socially distant, and utilizes conflict management tactics of force, accommodation and avoidance.

From an organizational perspective, an aspect to developing effective teams involves effective communication (Barbour, 1998, 2005; Barbour & Harrell, 2005; Barbour, Tipping, & Bliss, 1994; Bennis, 1989; Kotter, 1998; Senge, 1990; Senge, et al., 1994; Wheatley, 1992; Zaleznick, 1998).

Problem-Based Learning

Problem-based learning (Barrows, 1988; Barrows & Tamblyn, 1980; Bridges, 1992) is a pedagogical approach that uses typical problems of practice as the context for an in-depth investigation of either field-based authentic real world problems or extensive case studies that involve core content. Bridges (1992) and Bridges and Hallinger (1995) note that problem-based learning has as a starting point a problem that students are likely to face as future professionals. The problem should come first, and then the content. This contention supported is by Knowles (1978) who holds that adult learners have a problem-centered focus on learning, want to be self-directed and are time-oriented to the present. Additionally, Bridges and Hallinger (1995) note students, individually and collectively, assume a major responsibility for their own instruction and learning; most of the learning occurs within the context of small groups rather than lectures. Finally, the product of the project should be an "authentic" product, that is, simulates some aspect of organizational leadership.

Methods

This instructor observed and collected data with four different groups of graduate students over two years and involved approximately 100 students who were in a masters degree leadership preparation program. Data were collected from one particular leadership course, on problem solving that included processes of decision-making, dealing with conflict, staff development, conducting meetings, and leading effective teams.

Student Materials

Throughout each semester, I used four prepared learning modules that were placed within a problem-based learning (P-BL) perspective. I developed one module, *Self Inventories and Value System*. I used a second module developed by Hallinger (1993) titled *Unison School*. To help the students develop meeting and group skills, I used the book *How to Make Meetings Work* by Doyle and Straus (1976) as the third module and shared team building strategies and techniques from research on leading teams. The fourth module was a project wherein the students, in teams, developed and wrote case studies that were analyzed and discussed by fellow classmates.

Data Collection

Methods of collecting data were grounded in naturalistic, autobiographical inquiry (Geertz, 1988; Goetz & LeCompte, 1984) and reflective inquiry (Osterman & Kottkamp, 1993; Schon, 1987). Using anthropological methods of data collection including observation and document analysis, the data for this study were collected from several sources: written evaluations and reflections from students and instructor; analyses of surveys and evaluations on team leaders and team climate; observations from this instructor, two student "diarists" and a non-participant observer; and from documents presented as final products. Data were analyzed and findings were developed based on recurring patterns and themes using methods of triangulating data, noted by LeCompte and Preissle (1993).

Findings

After analyzing the data, I discovered a need for students and instructor to change both the traditional modes of learning and methods of teaching in order for teaming and problem-based learning to be effective. Additionally, I discovered pedagogical and leader knowledge uniquely important to each problem-based learning module. Although the situations/contexts were different for each learning module, group processes (roles and dynamics), module-dependent tasks (for example, personal growth, staff development, or long-range planning), and final product (for example, autobiography, portfolio, presentation, or case study) were important variables to each P-BL experience. Findings are discussed below in three areas: leadership skills, the learning triad of module-student-instructor roles in the learning-leader classroom, and factors that seem to lead to team success. First, however, I will discuss findings within the overarching frame of the course: the course timeline.

Course Timeline

The course was divided into three sections. Figure 1 shows an overview of the entire semester's course. Four strands in the middle of the table (reflection, meetings, teamwork and leadership) were strands that ran all 16 weeks.

I discovered that over the course of two years, the locus of learning within the timeline shifted from instructor-centered to the pattern noted in Figure 1. The first few weeks of the semester were devoted to course orientation and introduction of the ideas and process of problem-based learning according to Bridges (1992) and Bridges and Hallinger (1995). The focus was on the self, on conducting meetings, and how to make meetings effective according to Doyle and Straus (1976), and on team skills needed for building successful teams (Tuckman, 1965; Harvey & Drolet, 1994). The instructor provided information and drove most of the focus, while the students took secondary roles as participants, although their participation was more passive as they completed instructor-driven exercises.

Over time, during the second five to seven weeks of the course, students honed their meeting skills and began to work more seriously on their teamwork skills as they worked on the second problem-based learning module, *Unison School*. My instructor's focus began to shift as I began to guide, and the students became more active participants. In the final five weeks or so, I took a lesser role as an active observer and the students worked in teams to develop their own real-problem cases and drove the last weeks of their learning.

Figure 1. Semester Timeline and Focus of Course at Various Stages
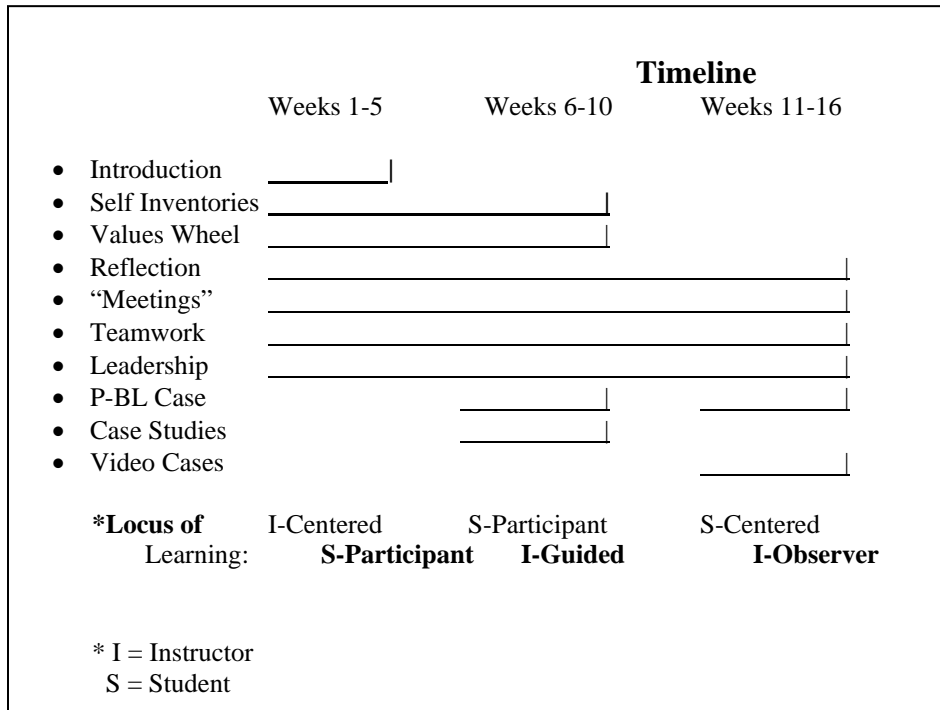
Findings: Leadership Skills

There were four sets of leadership skills that effective groups in each of the classes sorted out over time. First, students learned about and worked out the group process issues. Additionally, roles of team leader, facilitator, recorder and group member were important to learn and practice. Second, in the modules utilized, students studied and reflected upon their value systems and their strengths and weaknesses as future leaders. As they reflected upon the self, I discovered that they began to reflect upon the issues of teamwork and the different roles within team-based problem solving. Third, with opportunities to practice different team roles, students learned from those experiences the cycles of team building. Finally, in each P-BL learning module students reflected upon the role of team leader and discovered the role varied as the tasks and situations varied.

This researcher also discovered several variables uniquely important to "instructors of future leaders" who utilize P-BL modules. An instructor must be

able to understand, model, and lead group processes, which includes the roles all team members will play and the dynamic of team members within those roles. Additionally, the role and tasks of the instructor were different in each module set, so an instructor has to possess a variety of skills depending on the capabilities and needs of students. An instructor utilizing problem-based learning must understand team-specific (module-dependent) tasks that students are expected to master such as reflective aspects of personal growth, staff development or, perhaps, long-range planning. Finally, the end product (for example, autobiography, portfolio, presentation, or case study) is an important variable to each problem-based learning experience and must have appropriate scoring guide and evaluation tool built in to each experience.

Findings: Learning Triad

In addition to focusing on leadership skills, I also analyzed the role of the instructor who is teaching future leaders. After analyzing the data, this researcher discovered a "learning triad" that seems to take place in the university leader classroom (Figure 2). I discovered that the P-BL module is the bottom piece of a triangle (the conduit) that includes learning and teaching characteristics and responsibilities of both the students (developing leaders) and the instructor (knowing leader), the other two sides of the triangle.

Knowing the Self

We have Socrates to thank for the view that "the unexamined life is not worth living." The data collected seemed to indicate that problem-based learning can be effective only insofar as students have taken time to examine who they are and what skills and abilities they posses that would cause them to believe they can lead others.

Figure 2. Learning Triad

	Student	P-BL Module	Instructor
	Developing Leader	*Conduit*	*Knowing Leader*
Self	Values	Values Inventory	Values
	Traits	Self-Inventories	Traits
	Characteristics	"	Characteristics
Tasks	Meetings	Making Meetings Work	Instructs
	Teamwork	"Unison School"	Coaches
	Staff Dev.	"	Counsels
	Strategic Planning	"	
	Presentation		Assesses
Situation(s)	"In-Class"	Module	Designs
		Meetings' Teams	Models
		Case Study Teams	
	"Real Life"	Individual Cases	
		Video Simulations	
Followers	Classmates	Teams	Counsels
	"Case People"	"	Assesses
	"Real People"	"	

The first few weeks of this course are devoted to a reflective analysis and interpretation of a set of self-inventories and an analysis of one's value system. The inventories begin slowly and easily with a simple left-brain/right-brain hemispheric analysis and progress to a variation of the Myers-Briggs Inventory. Since I wanted to model growth in reflection, I began with fairly easy inventories that progress in depth and interpretation. The students are given analysis and interpretative information for the entire set so they can self-score, analyze and interpret the results relative to their future careers. The students are instructed to write a brief analysis and reflection of the results of their inventories, including a discussion of key personally held values. In class we use this instructor's own findings and discuss the results of my inventory-set to model reflection and application of findings. Using my own findings provides some levity to the task and helps build trust. We also link class discussions to their leadership philosophies and how their deeply held values will effect their organizational decisions. In their reflections, most students placed a high value on the importance of the inventory set. They learned aspects about themselves they did not realize, but most often their results gave substance to what they already knew, that they did, indeed, possess important leadership abilities. Most of the students indicted they would keep and reflect upon the inventories, and that they enjoyed this module.

Knowing the Task

The tasks are duties, responsibilities, or sets of acts one performs in his or her role, for example, as a manager or leader. Tasks can be those of a real-world leader, for instance hiring or firing staff, strategic planning, staff alignment, and decision-making or tasks in the university classroom such as leading small teams, conducting meetings, making presentations, being good group members, or creating a portfolio. Teams were more effective when the instructor provided information about tasks of leadership and shared knowledge about effective task-success in the leadership classroom. Our classroom future leaders, for example, needed to have information about presentation skills, how to be a good group member, how to facilitate and lead teams, how to conduct effective meetings, and so on, to have success in the classroom and to, hopefully, transfer that success to the real world of leadership. Additionally, they needed to understand, for example, effective hiring practices, strategic planning, and collaborative decision-making, tasks of real-world leadership.

Knowing the Situation

The situation is the condition in which a leader is placed. This could be an environment, an event, an action, or a role. The environment can be culturally diverse, homogeneic, chaotic, in need of change, and so on. The situation can be geographically new to the leader, involve an urban setting, or be in a familiar organization. The case study or problem from which the P-BL modules or projects are developed provides the context and situations from which the leaders must make decisions. In the *Unison School* case used in this particular course, the future leader is presented with a situation (context) that includes a veteran faculty in a low-achieving school. I discovered students had varying experiences with contextual information contained in the cases, often interpreted case material inappropriately, showed a variety of biases, and often relied on experiences in making case decisions, rather than consult the readings offered for theoretical, researched-based grounding for their eventual decisions.

Knowing the Followers

In the classroom, students are presented with two levels of followers. The staff and faculty members are one level of followers with whom the leader will work. They are the "case module people" in the P-BL materials and the "real people" from the cases developed by the students themselves. The university classroom provides the students an opportunity to practice leadership in context at a level removed from "the self." The students also work within teams where some members are leaders and others are followers. How they work as leaders and followers within the teams will aid in their understanding of the leader-follower dynamic as future leaders.

Factors Leading to Team Success

Tuckman (1965) identifies four stages within a team's developmental life: forming, norming, storming, and performing. Subsequent research published with Jensen added a fifth stage, adjourning (Tuckman & Jensen, 1977). I found that the instructor most directly influences the first stage of team development, forming, since we often choose which class members are grouped together. The rest of the stages are team member-involved and member-driven, with the instructor facilitating or guiding the teams as needed. In our leader classroom, I discovered that teams did, in fact, go through all five stages. I also discovered the instructor's role shift through the developmental process to require less instruction and more modeling, counseling or guidance, as teams coalesced.

In this study, I found five factors that seemed to lead to team success and the effective understanding of situations and followers. First, and most importantly, an effective team leader was key to team success in completing and submitting final products. Team members found most success when leaders followed through with their responsibilities for leading and group members actively participated in the projects; thus, understanding of roles and accountability for fulfilling roles were both important for team success. Second, in order to fulfill roles, it was important for leaders and members to honestly assess their strengths and weaknesses, to develop abilities they could, acknowledge their differences and participate fully in their projects. Thus, a leader of teams has to make a concerted effort to place people where they can grow and succeed in order for the team to be successful. Third, a leader of teams is responsible for team members' developing a belief in and an appreciation of genuine differences in others. I discovered that leaders of successful teams set a tone of trust and fairness and modeled that trust and fairness in the norms, roles, and team processes for the members. Fourth, closely related, I noticed that when conflicts about team members or about projects were not resolved that team success suffered. Thus, the team leader must be responsible for leading the resolution of group and/or individual conflict. When teams did not resolve conflict, they most often were not as successful as teams who did resolve conflict. Finally, the team leader has a responsibility to help members so that all personality types can develop their strengths, but not at the detriment of other team members. In order to help the team leader develop, and because students' personal growth and development were important learning criteria for this instructor, I tried to guide the leaders with this responsibility to provide for both personal development for the real world and for success in the leader classroom.

Summary

From my investigation of how to design classroom teams and experiences that would help future leaders learn to effectively lead teams, I made several discoveries: there occurred a shift in the course from instructor-centered to student-centered; four sets of leadership skills emerged from successful teams; and there emerged a learning triad. Additionally, I found the use of problem-based learning modules an effective method to help build teams in the leader classroom, as suggested by the literature; however, the modules should be coupled with a focus on the stages necessary in effective teaming. I found that the student classroom teams did go through the stages of teaming, as noted by Tuckman (1965), and the most effective teams were those who had effective leaders. Students were more effective when the instructor guided them through forming, developing team norms, dealing with conflict, and concluding their projects.

In conclusion, as students transfer their skills to the real world of organizations, they will be more effective team leaders if they practice the following: (a) work through and resolve group and/or individual conflict, (b) lead and keep an eye to active group member participation in the work of the teams, (c) get beyond the self to become selfless in group work, (d) accept team members' strengths, weaknesses and differences, (e) and help to facilitate growth in individual members. As the role of the instructor in the problem-based leader classroom shifts from teacher to observer/facilitator, it is hoped that the instructor assists the future leader in gaining a theoretical grounding and practical understanding of leading in diverse, team-based settings.

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Biography

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