



# Reframing metaphors in business and education teams

Metaphors in business and education

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289

## Abstract

**Purpose** – The purpose of this paper is to conduct an action-research study of metaphors and metaphoric fragments composed by graduate students in 17 teams in two business (MBA) and three educational administration courses taught by the same instructor and action-researcher.

**Design/methodology/approach** – The methodology of the paper was action-research conducted directly by the instructor and indirectly by the business and education graduate students who participated in the study. Participants (74) were aspiring leaders in business and educational leadership programs at a private university in New York. The instructor and action-researcher utilized participants' metaphors or metaphoric fragments (i.e. glimpses of a metaphor) as an instructional technique to compare and further understand the team process in both disciplines.

**Findings** – The findings in the paper indicated that an analysis of metaphors or metaphoric fragments enabled the instructor to develop a multiple perspective of various team stages and revise an action-plan (or syllabus) that would expand the use of metaphors as a diagnostic tool for team development.

**Originality/value** – The originality of the paper is that it is cross-disciplinary, and compares metaphors from aspiring leaders within the disciplines of business and education. The value of the study is that it may influence the development of other action-research team studies on the university level.

**Keywords** Action research, Education, Master of business administration, Leadership, Metaphors

**Paper type** Research paper

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## Introduction and background

According to Ivie (2003), “metaphors represent the quintessence of thought” (p. ix); “they have the ability to shape the pattern of our ideas and the character of our lives” (p. 1). Ivie maintains that developing a metaphor is “simply the way our mental processes work” (p. 3). Lakoff and Johnson (1980) claim that most thought is metaphorical and is “pervasive in everyday life, not just in language, but in thought and action” (p. 3). According to Ivie (2003), “the language of education abounds with metaphors” (p. 4). For example, he states “many educational psychologists like to think of the human brain as analogous to the computer. Teaching is largely a matter of controlling “input”; learning can be gauged by measuring “output” (pp. 2-3). Ivie goes on to assert that students are usually asked:

What is your metaphor for life? Life is often spoken of as if it were a game. The object of any game is to win ... The gamesmanship metaphor is often used in the world of business. A successful corporation requires teamwork ... Sometimes the gamesmanship metaphor is applied to personal relationships, which usually results in conflict and turmoil. Who wants to be married to someone who always has to win? A more pleasant metaphor is to think of life as a dance. The important thing is to flow with the music. People waltz into and out of our lives. Each partner teaches us a new step to follow in life's dance (p. 4).



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Currently, disciplines in higher education are undergoing change as they are called upon to adapt and re-engineer pedagogically. Two such disciplines are business management and educational leadership. Some researchers have tracked the acceptance of change processes in organizational development through the use of metaphors (Keizer and Post, 1996). Ogawa and Kim (2005) offer a five-tiered model that outlines the relationship of business and education by focusing on the metaphors of outputs and inputs; the relationship of business and education is both harmonious and competitive as human, material and wealth resources are shared, consumed and redistributed in society.

Cherry and Spiegel (2006) recommend using metaphors as a common reference for school leaders so they can effectively guide school change. Beavis and Thomas (1996) state that “the images conveyed by metaphors become storehouses of expectations” (p. 99); the researchers examined key metaphors that were associated with values and behaviors that contextualized school identity. Grady *et al.* (1996) extensively field tested a questionnaire that focused on teachers’ metaphors in regard to school identification. Metaphors ran the gamut from family, forum and orchestra to shopping mall, beehive and traffic jam. The researchers contended that with these metaphors as a reference, educational administrators might precipitate change at their schools. Recently, Cerit (2006) quantitatively analyzed the perceptions of students, teachers and administrators in regard to primary schools, and stated that in his study, “participants preferred positive metaphors” (p. 697), such as family and team rather than prison, factory, office or shopping center.

Morgan (1997) utilized metaphor as a tool to shake-up assumptions in organizations so that change could evolve more readily. Senge (2006) and Senge *et al.* (2000, 1999, 1994) suggested that business and school stakeholders rigorously examine their mental models (i.e. beliefs, assumptions and values) so as to expedite change by forming a “learning community”, which in itself is a metaphor. Sergiovanni (1994) stated that certain metaphors have shaped the field of educational administration. He argued that in order to change schools, one had to change the root metaphor from one of “organizations,” which presumed hierarchy and self-interest to that of “communities,” which presumed networks of families and friendships.

Cherry and Spiegel (2006) identified archetypes of educational leaders through metaphor, i.e. the touchstone leader (decisive change agent), the advocate (equitable and fair leader) and parent (caring leader). Ivie (2003) claimed that:

... administrators are prone to use factory metaphors when speaking of their schools ... How are things down at the plant? (p. 2).

Bolman and Deal (1997) illustrated how adopting metaphors and applying them to a school could reframe the school as a factory, jungle, family or theater. Arnett (1999) compared educational administrators to builders and renovators because they try to instill “ethical values, ideas and beliefs to the next generation of students, faculty and alumni” (p. 80). Senge (1990) compared the leader of a learning organization to a designer, steward and teacher. Senge (2006) expanded on these metaphorical roles and explained that the designer unassumingly builds the foundation for learning; the teacher is the medium for creating the learning vision; and the steward serves those who are led.

IVIE (2003) states that the use of metaphors “add color and richness to language” (p. 1). For example, Weick (1996) metaphorically wrote that school administrators take the heat, put out brush fires, face explosive situations, yet “they still have a burning passion for teaching kids and a fire in their belly to build fires under their colleagues so they too are willing to walk through fire on behalf of the kids” (p. 565). Weick recommended that school administrators set up effective systems of management based on the multi-level applications of wildland fire fighting (i.e. strategy, relationships, communication, escape routes and safety zones).

For several decades, educational scholars have metaphorically dialogued that school organizations resembled either “loosely coupled,” or “tightly coupled” systems depending upon the amount of decentralization versus centralization that was evident. In a loosely coupled organization, independence and autonomy were evident; in a tightly coupled system, there was bureaucracy and the absence of shared decision-making. Rowan (2002) comments on this dialogue and recommends that it extend beyond educational scholars in an effort to widen organizational analysis so as to untangle the “tangled” couplings that affect schools. Fennell (1994) advised that a simultaneous loose-tightly coupled school system with multiple linkages was more advantageous for change because linkages would be in place for both direct communication and wider networking among participants. She metaphorically commented that linkages and couplings might be viewed as dynamic patterns that simultaneously impact a change process in a school.

Greenlee (2006) stated that instructors of teacher candidates have extensively utilized metaphors in reflective exercises as teaching tools in order to check the understanding of teacher candidates in regard to their future roles in the classroom, but that utilizing metaphors in the education of administrative candidates was not as widespread. Greenlee (2006) own study (2006) used metaphor as a tool for self-reflexivity in order to explore the relationship of theory to practice in the education of aspiring administrators. Greenlee recommended instructors directly apply metaphoric usage as a pedagogical tool in the education of school leaders.

Cleary and Packard (1992) suggest that metaphors can be utilized as interventions to generate creativity and imagination. Unfortunately, as adults advance in education, creative abilities seem to diminish. At the age of five, children possess a natural creativity, but as they progress through school, they are asked to put their creativity on the backburner so that orderliness, conformity and equity are emphasized in the classroom (Couger, 1995). Because of the demand today for adaptation, creativity and flexibility in accepting changes at the workplace, Couger further suggested that creative thinking might be stimulated by having adult students compile metaphors about an experience. He claimed that engaging in metaphoric thinking gives adults “the ability to bridge between disciplines, to borrow ideas from one context and use them in another” (p. 370). Beavis and Thomas (1996) state that:

... metaphors are linguistic devices that enable one to transfer images from one entity to another (p. 99).

The advantage of applying metaphor as a teaching tool is to “clarify meaning in the midst of complexity” (Provenzo *et al.*, 1989, p. 551). For example, Mumby (1986) examined metaphors in regard to deciphering teachers’ roles. Koro-Ljungberg (2001) asserted that metaphoric thinking aids students in formulating multiple meanings

regarding a human experience. Moreover, Kemp (1999) proposed that metaphoric thinking can help students evaluate an experience as it evolves. According to Kemp, the use of metaphor can enable faculty to assess learning groups within their academic discipline.

In an effort to enhance creativity, diversity and problem-solving, teams are used in organizational settings (Thompson, 2000). We even see evidence of team popularity reflected on television shows in the media such as, "Survivor, The Amazing Race and The Apprentice". When the team process works, the experience is "electric" (Leavitt and Lipman-Blumen, 1995). Team members feel a sense of elation, satisfaction and camaraderie that is a testament to the extraordinary energy of teams. Metaphorically, they become "hot groups" as they are propelled beyond the capability of each individual team member (Leavitt and Lipman-Blumen, 1995).

Pearce and Conger (2003) state that the team is the fastest growing organizational unit; they advise researchers to conduct future investigations of leadership from the perspective that leadership is a shared process. They note that in the past, leadership studies have focused primarily on the individual in relationship to followers rather than multiple individuals sharing leadership. When the team is examined, there are many complex variables that may affect, influence or moderate the team and its output (DeMeuse and Liebowitz, 1981; Kline, 1999; Salas *et al.*, 1999). For example, Wageman (1997) concluded that team design (i.e. clear direction, task interdependence, performance goals, diverse skills, team size, etc.) and coaching were the critical ingredients for team success.

There is a close connection between the disciplines of business and education as concepts applied in business are also applied in education. But when teams are utilized, there seems to be a difference in a business team versus an educational team. According to Katzenbach and Smith (2003), the business team model emphasizes the task or performance primarily, while the educational team model emphasizes the development of values, such as cooperation and teamwork. Moreover, even though educators advocate and value collaborative and cooperative ventures (Danielson, 2002; Friend and Cook, 2000; Fullan, 2001; Noddings, 1992), there is evidence that they may be avoiding them in practice (Leonard and Leonard, 2006).

Team tension seems to be at the core of any problem concerning an individual's self-identity and identification with the team (Kling, 2000). Underlying mixed messages perpetuate team tensions; there is a gap in what is communicated and what is practiced. Lipnack and Stamps (1997) claim that individuals continuously grapple between "me" and "we" when working in teams. Thompson (2000) states:

... the choice between individual and group interests is a team dilemma (p. 135).

This dilemma seems inherently part of the team process and seems to influence any change or shift toward or away from the team unit. Katzenbach and Smith (2003) maintain that:

... a team is a small number of people with complimentary skills who are committed to a common purpose, performance goals, and approach for which they hold themselves mutually accountable (p. 45).

The researchers claim that teams and groups are different. Within a group "members interact primarily to share information, best practices, or perspectives and to make

decisions to help each individual perform within his or her area of responsibility” (p. 91). There is no “common purpose, incremental performance goals, or joint work-products that call for either a team approach or mutual accountability” (p. 91). They contend that when people initially interact, they constitute a “group,” but as the group members evolve into a “team,” they pass through a continuum of various team stages, which are characterized as:

- working group;
- pseudo-team;
- potential team;
- real team; and
- high performance team (p. 84).

These stages may be likened to metaphors because they are comparable to analogies or “symbolic and suggestive tools for thinking” (Ivie, 2003, p. 5).

There are additional researchers who posit that teams evolve through team stages. They recommend that team change should be viewed as a process that evolves over time (Buzaglo and Wheelan, 1999; Kasl and Marsick, 1997; Rushmer, 1997; Tompkins, 1994). Tuckman (1965) suggested a developmental sequence in teams of forming, storming, norming and performing. Kasl and Marsick (1997) constructed a model of team learning; they investigated four teams at the workplace. Their modes or stages of learning consisted of:

- Fragmented (where individuals learn separately and not as a holistic group).
- Pooled (where members begin to share information, but the focus is still individualistic).
- Synergistic (where knowledge is mutually created and meaning is shared).
- Continuous (where the synergistic phase is habitual).

Although Kasl and Marsick’s model is similar to Tuckman’s, in their model, there is reframing or perspective integration at the synergistic stage, where assumptions are challenged and changed through reflection.

Buzaglo and Wheelan (1999) developed a group inventory and detailed the process of small group development in their study of three groups in a semi-governmental organization. They specifically investigated the concepts of trust and commitment. The researchers discovered five stages of development, which included:

- (1) The beginning stage of avoidance of conflict and designation of a leader.
- (2) Formulation stage of developing trust, decision-making and role assumption.
- (3) Structured stage of clarifying goals and solidifying positive relationships among individuals.
- (4) Intense productivity and effectiveness stage.
- (5) Termination and review stage.

Wheelan (1999) later simplified the stages to four. They are the stages of dependency and inclusion; counterdependency and fight; trust and structure and lastly, work and productivity.

Tompkins (1994) presented grounded theory on team learning in her doctoral dissertation. According to Tompkins:

... management journals publish an increasing number of articles on organizational learning, but few of them are based on empirical data ... few studies examine how organizational learning occurs (pp. 2-3).

Tompkins proposed that learning was cyclical; she analyzed data from the top management of a defense-industry firm and six of the firms' work teams. She stated that her results showed that "although teams move through stages of collective learning, they may cycle back into previous stages. In other words, collective learning does not necessarily occur in a linear fashion" (p. 5). Tompkins identified four stages of collective learning, namely:

- (1) Collaborative climate stage (team members learn to handle conflict and access each other's strengths and weaknesses).
- (2) Collective understanding stage (team members collectively agree on visions and/or processes).
- (3) Collective competency stage (team members increase their knowledge and skills).
- (4) Continuous improvement stage (team members continually improve their ability to coordinate their actions).

Because of the close link between work and school, team-based models researched at both sites provide multiple perspectives for researchers because many of the same variables are examined. Kline (1999) claimed to have found cooperativeness "positively related to work process effectiveness" (p. 64). For example, Kline and MacLeod (1997) measured cooperativeness at the worksite. The researchers gave a trait survey to 75 members of 13 work teams from various organizations and found that cooperation was positively correlated to work process effectiveness. Janz and Wetherbe (1997) applied the educational cooperative learning model to the worksite in regard to 231 information systems professionals working on 27 developmental projects. The researchers concluded that there would be high levels of process change if cooperative learning and cultural readiness were linked. Cohen and Bailey (1997) in a meta-analysis investigated 54 studies of worksite teams that employed the constructs of performance, attitude and behavior. They concluded that outcomes were dependent on the type of team studied and group cohesiveness was positively related to performance and outcome.

In spite of the voluminous research that has been conducted by academicians, business and education faculties have been criticized for not providing their students with a useful knowledge base (Levine, 2005; Nowak *et al.*, 1996). Moreover, Levine suggested that educational leadership students forego a degree in educational administration and pursue a business degree. Levine's advice has caused heated debate and re-evaluation of the educational leadership knowledge base (Creighton *et al.*, 2005).

At a private university in New York, faculty conceived of an educational leadership degree program that integrates business and education concepts and courses in its knowledge base. Group and team interaction are emphasized. For example, within an educational leadership course, students actively work in a team unit and develop a problem-solving initiative. Upon graduation from the program, educational leadership candidates are certified by New York State (NYS) to lead and manage schools or



departments within the titles of principal, headmaster, assistant principal, director or department chairperson at the childhood or adolescent grade levels. Currently, national and state governing bodies advocate that educational administrative candidates gain experience working with various school stakeholders, such as parents or community representatives in partnerships or groups in order to accelerate change and reform in schools. In addition, national accreditation agencies in the field of business also advocate the utilization of team units in the MBA classroom.

To meet this requirement, one of the courses in the leadership program applies a teambuilding model developed by the instructor that integrates the work of business and educational theorists, i.e. Katzenbach and Smith (2003) business team model with Senge (1990) systems team learning framework in conjunction with Johnston (1996, 1998) interactive learning model ®. Reflective practice exercises suggested by Johnston (1996, 1998) and Osterman and Kottkamp (2004) are included in the model (Marcellino, 2006a, b). Several academicians (Greenlee, 2006; Ivie, 2003; Osterman and Kottkamp, 2004) have advised applying the use of metaphor as a tool to further reflexivity and understanding. In this study, the instructor utilized metaphor as an instructional technique to further reflexivity and understanding about teams.

### **Purpose**

The purpose of this action-research study was to conduct a comparison of metaphors and metaphoric fragments composed by graduate students in 17 teams in two business and three educational administration courses taught by the same instructor and action-researcher. Participants ( $n = 74$ ) were aspiring leaders in business (MBA) and educational leadership programs at a private university in New York.

### **Problem**

Currently, there has been widespread advice rendered to university instructors (i.e. business and education) that aspiring leaders should be engaging in team units. Team development seems to be regarded as the panacea that might solve on-going problems in either discipline. When teams work well, they have been shown to go beyond the combined scope of each individual on the team, thereby, improving problem situations (Senge, 2006). But, even though teams have been studied in university classrooms and laboratories since the 1930s, there is still no unified team development model (Kline, 1999).

According to Kline (1999):

... there are so many theories about team performance, there are so many variables involved, and there are so many different ways to measure those variables that we are a long way from having a comprehensive theory of team performance (p. 140).

Without a unified theoretical team development model, there is ambiguity when teams are utilized (DeMeuse and Liebowitz, 1981; Kline, 1999). The result is confusion regarding team development among academicians, instructors, practitioners and students. Simply labeling the group and calling it a "team" does not realistically shape the team or provide clarity for students. Beavis and Thomas (1996) state:

By using the metaphor of a factory, for example, one expects that others expect efficiency, uniformity, competition and conveyor-belt type processes ... Metaphors, therefore, are

involved in the material stabilization of expectations. Their images offer contexts of meaning to make clear to all in the system what is expected (p. 99).

But when the metaphor of a “team” is applied, no such clarity exists regarding what is expected when individuals interact in team units. Because there is a lack of a unified model of team development (Kline, 1999), and there are mixed messages in society regarding team units (Katzenbach and Smith, 2003), confusion persists. The team is praised, but it is still the individual that is evaluated. Varying expectations permeate the team unit and affect team members’ assumptions, beliefs and values concerning teams and team members (Kling, 2000). Therefore, problems may result when adults are placed in teams in university settings as well as in worksite settings. These have been documented as alienation or withdrawal of members, stalemate, heightened emotionalism and lack of identification to the team (Marcellino, 2006a; Pacanowsky, 1995).

Bolman and Deal (1997) state that:

... many classic team problems arise from ill-fitting structures (p. 96).

In order to increase team skills, it is recommended that instructors or facilitators lay the proper structural foundation and coach members in order to render support to teams (Bolton, 1999; Wageman, 1997). An instructor needs to establish trust with team members so that permission is granted to facilitate interaction and discussion. Because the instructor is an “outside” facilitator and not a member of the team, trust is sometimes difficult to achieve within a limited time frame. Trusting relationships take time to develop and in a fast-paced ever-changing environment, time may be a limited commodity in the classroom or at the worksite.

Metaphorically, borrowing from Weick (1996), when teams are utilized in the classroom setting, the instructor needs to put out the “smoke” of team tensions before a volatile fire or situation develops that may lead to team disunity or fragmentation of the team output. Furthermore, if students become disappointed or get “burned” by a team experience, they might develop a reluctance to implement team units at their schools or worksites. Therefore, to further understanding, the application of metaphors or metaphoric thinking might be utilized as an instructional tool to alleviate team tensions (i.e. smoke) and prevent the exacerbation of team problems (i.e. fires). Borrowing another metaphor, this time from Senge (2006), if the instructor, like the leader, is considered the designer of the learning situation, then the over-arching problem for an instructor is how to design the team process so that adults learn positively and develop their teambuilding skills.

### **Theoretical framework**

The instructor’s team model combined the concepts of several business and educational administration scholars (Katzenbach and Smith, 2003; Johnston, 1996, 1998; Johnston and Dainton, 1997a, b; Senge, 1990; Osterman and Kottkamp, 2004). The model emphasized task delivery and performance (Katzenbach and Smith, 2003) in combination with Senge (1990) values-based model that focuses on each team member’s personal mastery, reflective examination of mental models, developing a shared vision and fostering team learning. Katzenbach and Smith’s model explores a team continuum through various evolutionary levels from “working group” to “high performance team” (p. 84). This continuum also served as a metaphoric benchmark for the teams (Marcellino, 2006a).



Teams were set up utilizing Johnston and Dainton's (1997a, b) reflective Learning Connections Inventory (LCI) ©. The LCI provided the tool that enabled the instructor to design diverse working groups based on students' learning patterns (Marcellino, 2005). Johnston's (1996, 1998) learning precepts, based on respect, cooperation and teamwork, are aligned with Senge's precepts. Both theorists conceptualize a systemic approach that emphasizes individual and shared accountability. The instructor felt the work of these academicians was compatible and applicable to teams in a business or education class setting and students in both disciplines were introduced to the work of these scholars.

Open communication is the key to facilitating dialogue that leads to team learning (Senge, 1990). Unfortunately, students may be reluctant to engage in discussions with team members when team tensions or problems exist. Therefore, reflective exercises were applied based on the work of Johnston (1996, 1998) and Osterman and Kottkamp (2004). Osterman and Kottkamp ask their students to apply metaphors to the development of educational leadership platforms or vision statements; the academicians suggest that reflective practice may also be applied in work-group settings. Following-up on this idea, the instructor asked students to apply metaphors to their groups or teams. Many questions are asked as action-research evolves. Two specific questions asked for this study were:

- (1) How can the application of metaphors facilitate understanding of the evolving team process?
- (2) How do business and education students compare when applying metaphoric thinking to team units?

### Research design

Most team studies are quantitatively-based. Overall, empirical researchers have adopted a positivist approach to team-based research whether in the classroom or at the worksite. Studies are concerned with input and output variables. What goes into the "box" will affect what comes out of the box. But when this model is applied to team research, it seems limiting because it seldom delves deeply into the beliefs, assumptions and values of individual members within team units. Intentionally limiting variables does not seem to provide a broad analysis of what is happening to all members of the team.

Rushmer (1997) suggested that the problem with team-based research was its approach. She asserted that the team itself should be viewed as the unit of change and that change should be examined throughout a study, not just at the beginning and the end. Rushmer advised utilizing qualitative measures when working with team units. Qualitative methods provide a rich source of detailed data that are grounded in the human experience (Miles and Huberman, 1994). According to Bogdan and Biklen (1998), action-research builds on a qualitative approach.

Bogdan and Biklen state:

... the qualitative research tradition produces an interpretation of reality that is useful in understanding the human condition (p. 25).

Miles and Huberman note that:

... good qualitative data are more likely to lead to serendipitous findings and to new integrations; they help researchers to get beyond initial conceptions and to generate or revise conceptual frameworks (p. 1).

The instructor chose to engage in qualitative research because to borrow a metaphor, rather than take a quantitative snapshot of the pre and post results of variables in the study, an on-going video of various methods and iterations were logged for a deeper and broader analysis.

According to Mills (2003), instructors who engage in action-research try to improve their own teaching as they engage in discussions with their students and try to develop an understanding of what is evolving in their classrooms. Mills (2003) action-research model served as the basic methodology for the study. Action-research is an iterative process as the instructor applies it to each course that is taught (Marcellino, 2004, 2005, 2006a). The instructor, in the exploration of metaphors, served as the lens or instrument of research. While the use of metaphors was utilized to precipitate reflexivity in regard to the students, a second objective was to increase the instructor's understanding of the team process that developed in the classroom so that teaching could be improved for succeeding classes. The end result of action-research might be the revision of the instructor's action-plan (or syllabus) or the refinement of instructional techniques (Mills, 2003).

#### *Teams and participants*

There were 74 participants divided into 17 teams. There were seven business teams with 33 adults participating and ten educational teams with 41 adults participating. There were 19 participants (four teams) in the first business course, 14 participants (three teams) in the second business course; 17 participants (four teams) in the first educational leadership course, 11 participants (three teams) in the second educational leadership course and 13 participants (three teams) in the final educational leadership course. There were 52 females and 22 males participating. The females (17) and males (16) were almost evenly divided in the business classes. In the education classes, there were more females (35) participating than males (six). In an effort to add more males to the study, a third education class was explored. Within the teams, 25 students were categorized as diverse or minority students, such as Asian, African, Caribbean or Hispanic Americans with the largest diverse grouping categorized as African-American. There were seven students categorized as foreign nationals.

#### *Team context*

The setting was a private university in New York. Students in two disciplines were introduced to the work of cross-disciplinary management, leadership, team and systems theorists, including Deming (1994), Drucker (1999), Johnston (1996, 1998), Katzenbach and Smith (2003) and Senge (1990). Team members were asked to investigate corporations or schools and develop policy initiatives. Team members chose their topics and presented these in technological presentations (which were also peer evaluated) and policy papers (which were instructor evaluated). Topping (1998) maintains that:

Peer assessment is of adequate reliability and validity in a wide variety of applications (p. 249).

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### *Team construction and instrumentation*

Teams were constructed utilizing the research tested inventory, the Learning Connections Inventory (LCI) © developed by Johnston and Dainton (1997a, b). Validated nationally and internationally, the inventory has test-retest reliability as well as content, construct, and predictive validity (Johnston and Dainton, 1997b). The LCI is a self-report instrument with a Likert scale rating of:

- Never ever.
- Almost never.
- Sometimes.
- Almost always.
- Always.

There are 28 questions and three open-ended questions. Scores range from 7 to 35 in each of four categorical areas.

The choice of Johnston's learning pattern theory within the instructor's framework was based on its adaptability to individual and group needs and differences (Marcellino, 2005).

Johnston's reflective theoretical learning model (1996, 1998) features the interactions of cognition (thinking), conation (doing) and affectation (feeling) capabilities that combine into four diverse learning pattern preferences: Sequence, Precision, Technical Reasoning and Confluence (Let Me Learn web site (n.d.): [www.letmelearn.org](http://www.letmelearn.org); Learning Connections Resources web site (n.d.): [www.LCRinfo.com](http://www.LCRinfo.com)).

According to Johnston (1998), Sequence seeks to "follow step-by-step directions, organize and plan work carefully, and complete the assignment from beginning to end free from interruptions" (p. 24). In Precision, the learner "takes detailed notes, asks questions to find out more information, knows exact answers, and reads and writes in a highly specific manner" (p. 25). Through the Technical Reasoning pattern, "we see the mechanics of operations, the functions of pieces; we construct, we (problem-solve), we make it work, we get it done" (p. 27). Confluence "gives us permission to start before all directions are given; take a risk, fail, and start again; use imaginative ideas and unusual approaches; and improvise" (p. 29).

Diverse teams were intentionally constructed with representatives from each learning pattern so as to enhance creativity and problem-solving. Students were asked to visit Johnston's web sites and were presented with information regarding her theories. The mean scores of each class and each team, as well as each student's score in regard to the four learning patterns, were distributed and shared among all students. Each student's highest learning pattern score indicated a "use first" learning pattern. In some cases, there were students who led by more than one learning pattern and these were considered also. To expedite team identification, the instructor suggested initial team roles based on a student's "use first" learning pattern score. For example, the sequential learner might be the team's initial organizer; the precise learner could be the team's initial information-collector; the technical learner might be the team's initial problem-solver; and the confluent learner could be the team's initial idea-generator.

### *Team activities*

Various reflective exercises were applied that were suggested by Johnston (1996, 1998) and Osterman and Kottkamp (2004). For example, students shared aspects of their

background or autobiographies; management or leadership platforms were exchanged. In the education classes, students were offered suggestions by their peers to improve their platforms. Team contracts were negotiated by team members and in the last four iterations of the study, these contracts were formally signed. Team trust exercises were also utilized to enable students to become comfortable with one another.

In the five iterations, participants were asked by the instructor to describe or apply metaphors (i.e. words or phrases that illustrate an analogous idea, simile or comparison) to the team process that evolved. When only a glimpse or an idea of a metaphor was suggested, rather than a full metaphoric explanation, it was termed a metaphoric fragment. These metaphors served as symbolic representations of what happened on their teams. On a summative questionnaire, students were asked to explain the final team stage that had evolved utilizing Katzenbach and Smith's performance curve (p. 84). In effect, students assessed their groups or teams applying Katzenbach and Smith's "metaphoric" team stages.

#### *Methods, data collection and analysis*

Methods were triangulated to insure trustworthiness and dependability of the data (Mills, 2003). These methods became the data sources and included inventories (for example, the LCI), pre-tested evaluative questionnaires, team members' updates (including e-mail messages), summative reflective essays and (selected) follow-up interviews. Metaphoric thinking was supported by imbedding specific questions about metaphors within the methods utilized. The action-research process was applied in each of the five courses; therefore, the study was cross-sectional and based on repeated measures. In the analysis of data, the structured guidelines recommended by Miles and Huberman (1994) were followed. Categories were created based on the number of participants who mentioned a theme and the uniqueness of the information. Teams were compared and contrasted in the two disciplines.

#### **Results, findings and discussion**

*Question 1:* How can the application of metaphors facilitate understanding of the evolving team process? Findings indicated that there were similarities when teams were compared in both disciplines in regard to the learning pattern scores of the students and the evolving team process. The LCI indicated that the means of the "use-first" scores in each of the four learning patterns of the business and education students were closely aligned. Table I illustrates the "use-first" mean scores of the students' learning patterns in the business classes compared to the education classes.

Students also indicated similarities in metaphoric thinking regardless of the discipline. Initially, students started out differently. For example, as an introductory exercise, students were asked to describe their workplaces in metaphoric terms. Students discussed their beliefs about corporations and schools in an exercise entitled, "What is a business?" or "What is a school?". Schools were often characterized as,

**Table I.**

A comparison of the means of the use-first learning pattern scores of the business and education students

Discipline	Sequential	Precise	Technical reasoning	Confluent
Business classes	26.5	25.69	24.23	24.15
Education classes	26.41	26.18	23.895	24.76

“caring places” or “learning communities,” while business students characterized their corporations as “worksites” or “workplaces.” Aspects of “caring” or “community” did not seem to initially enter into the business students’ descriptions. Education students used these words more readily and seldom characterized their working environments as places to “make a living” or “make money.”

Educational leadership students tended to share more information in their background introductions or autobiographies concerning their personal and professional lives, while business students tended to offer only professional information when relating their background. In addition, the leadership platforms of the education students contained overt value-laden goals, such as “my intention is to create a learning community at my school”. Business students tended to want similar goals, but in regard to identifying values, their leadership or team statements were more indirect, “I must be able to see and or measure performance . . . with all on board”.

The application of metaphors seemed to support creative expression regarding team circumstances. When teams were compared, similarities were noted in regard to the stages of team development in both disciplines. Similar tensions and problems were evident as were team successes regardless of the discipline. Team tensions or problems were not attributed to differences in gender, age, nationality, race or ethnicity of team members. They were traced to external or situational factors as well as internal factors that impacted team members.

While interacting in their teams, several metaphoric themes emerged from the participants that allowed the instructor to distinguish various stages of a team’s development. These team stages were termed:

- (1) developmental stage (where team members initially came together to set their goals and develop their purpose);
- (2) evolving stage (where team members interacted, coordinated, collaborated, directed their project and developed an overall plan of deliverables);
- (3) realization stage (where the team product was finalized); and
- (4) reflective stage (where team members accessed team learning and the team process).

Tuckman (1965), introduced a study on team stages that achieved relative popularity among academicians and practitioners; his model described a four-point linear process of team members forming, norming, storming and performing. But in this study, the norming and storming stages were combined into an ever-evolving stage as students seemed to be pulled toward and away from the team throughout the team experience depending on the team tensions that were surfacing at a given time. In accordance with Tompkins (1994), the process of team learning was not linear or sequential, but seemed more circular as the teams evolved. Team members reported losing their focus or their “energy” throughout the team evolutionary process.

Continually maintaining a team’s energy to stay committed to the team task requires alignment, motivation and interactive team work (Aranda *et al.*, 1998; Beatty and Barker Scott, 2004; Polzer, 2003; Senge, 2006). Similar to Kasl and Marsick (1997) model, in the instructor’s model, there is a reframing or reflective stage, where learning is assessed and the trust of team members is indicated. This reflective period is also similar to the termination and review stage in Buzaglo and Wheelan (1999) model. The

metaphors proposed by team members are outlined as follows under the team stages designated by the instructor:

- (1) *Developmental stage*:
  - Development of team “energy”.
  - Developing a “pointed” team focus (education students primarily).
- (2) *Evolving stage*:
  - Indications of team identity through “inanimate objects” in metaphors.
  - Interactions of team members as “animate objects” in metaphors.
  - Depictions of various “team tensions” and disappointments.
  - Depictions of collaboration and interaction.
- (3) *Realization stage*:
  - Assessing the final team product or performance.
  - Assessing the team system and fusion of members as metaphor.
  - Assessing problematic interactions as metaphor.
- (4) *Reflective stage*:
  - Alluding to “learning” and the “appreciation of team members”.

Each team member told a different “team story” that added to the instructor’s perspective of team development. Morgan (1986), as cited by Beavis and Thomas (1996), stated:

... a metaphor can only produce a partial view of reality, and any insight gained will perforce be one-sided (p. 99).

In this study, there were multiple perspectives provided metaphorically regarding a team experience. The instructor compared and analyzed metaphors or metaphoric fragments from students in the two disciplines in order to gain a broader understanding. Positive and disappointing team experiences were described.

Analysis of metaphors enabled the instructor to not only develop a perspective of various team stages, but also revise the course syllabus so that metaphors could be expanded and used as a diagnostic tool in assessing teams in succeeding classes. These team stages appeared to be more circular than linear as team members were drawn toward and away from their teams (Tompkins, 1994). Overall, team members were reluctant to discuss their problems; they only willingly did so if the team product was affected adversely. Diagnosis of teams is warranted so that instructional coaching may be applied to maintain a team’s energy and support team unity.

*Question 2:* How do business and education students compare when applying metaphoric thinking to team units? The metaphoric fragments of business and education students are described at the various team stages. In the developmental stage especially, students need to initiate or focus the team’s energy toward its purpose and goals.

*Developmental stage theme: a team’s energy as metaphor*

The following metaphors illustrate that a team’s energy is an aspect of team development; it was described metaphorically by students in both disciplines.



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According to Aranda *et al.* (1998), a team's energy needs to be maintained for optimum completion of a team task or project. But in several cases, a team lost momentum and energy as tensions exacerbated and developed into problems.

Education students stated:

At the beginning, we were like chaotic *pieces of energy* (confluent female).

Our team was like the *energizer bunny*; we kept going and going and going (sequential female).

We seemed to do well initially and then *lost energy* and went our separate ways (precise female).

Business students stated:

It took us awhile to get moving with the *same energy* (technical male).

We met each week after class. These meetings sustained our momentum and *energized* us (sequential male).

We were fine for the presentation, *very energetic* and then we lost interest (sequential female).

#### *Developmental stage theme: team focus as metaphor*

It may have been because of their orientation toward cooperative educational models and multiple learning theories, but education students especially seemed to need more time to focus on a common team goal when applying the Katzenbach and Smith (2003) business model. Some education teams seemed to flounder initially and needed instructional coaching to maintain a common purpose or shared vision. This did not seem to be as important a consideration for the business students who seemed to focus more readily on outcomes as a product of their discipline. The following metaphors illustrate the "pointed" focus that was emphasized on two education teams in regard to maintaining their team's purpose or plan:

Our team was analogous to a *torpedo*. It took awhile to stay the course. But once we were programmed for our mission, we did not stray from our plan. Rather, we stayed with the target and remained focused to see [it] to its completion (technical female).

Our team was like a *pencil*; we kept on sharpening our efforts as we worked and erased any misconceptions along the way (sequential male).

#### *Evolving stage theme: team identity in inanimate metaphors*

It takes effort on the part of all members to get the dynamics of the team's energy moving in a unified direction so that team members identify with their teams, move as one and share leadership of their teams (Pearce and Conger, 2003; Senge, 2006). To illustrate, the following metaphors described the work involved in getting all team members to move in unison toward developing common goals. It was noted that many of the metaphors described inanimate objects or machinery. This similarity or commonality to link the team process to inanimate objects or mechanistic systems was noted in both the education and business classes. But even though inanimate objects were chosen, aspects of interaction and collaboration were imbedded in their depictions.

Education students stated:

*We moved so fast . . . we were like a train.* No matter what happened, you could not stop the train (technical/confluent female).

We functioned like a *well-oiled machine* because each part (person) stepped up and assumed responsibility when needed (technical female).

We were all parts of a *camera*. When everyone was not focused and the timing was off, the picture was unclear and fuzzy. When all the parts of the camera were focused and working most effectively, the picture came out clear and memorable (precise female).

Business students stated:

We started out real fast with the feeling that we knew where we were going (*the train*) then slowed as we realized that we had to get clearer instructions with respect to directions. We also went through a few tunnels (which) represent the down times when we struggled to put things together, as if we were working in the dark. In the end, we cleared all the tunnels, understood the directions received and took the *train* safely to its final destination (confluent male).

Each team member *stepped up to the plate* [baseball] and assumed responsibility (technical male).

We built our *bridges*. It takes flexibility, Communication and drive to make a team work. If any of these links fail, the team must identify them, go back rebuild and move on. It's like building a bridge from one island to another. The last island holds your goals. To get there, all bridges must be built and functional to achieve or realize the goals on the last island (precise/technical male).

*Evolving stage theme: team member interaction in animate metaphors*

The intricacies of the team process are explained as reliance is transferred from the individual to the supportive interactions of team members working in unified formations (Buzaglo and Wheelan, 1999; Kasl and Marsick, 1997). It is this stage of team development where members interact, coordinate, collaborate and begin to trust one another. The following metaphors describe team members as synchronized and animate beings rather than inanimate or mechanistic objects:

Education students stated:

We were like a *football team*; we depended on each member of the team to make a significant contribution to the overall effort. It was a long, difficult drive down field, but through perseverance and fortitude, we got the job done (precise male).

When I think back as a child going to the park, the only playground equipment, I could not use without a partner was the *seesaw*. Whenever you get on a seesaw, you sink to the ground no matter how strong you are, how weak you are, how big or how small. On a seesaw, you sink when you are alone. When another person gets on the seesaw, it creates a perfect balance. I think our team created a good balance . . . with our members (technical female).

Business students stated:

We are a *musical band* with only instrumentals . . . we all play a part, but work and sound better when we play together. Everyone is on beat and in sync with everyone else and everyone is playing their hearts out (sequential/precise female).

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It's like life and what you make of it . . . like the *rhythm of life* . . . No one person can do all the footwork or toes get stepped on. Everyone needs to hear the same music, move to the same rhythm. Our team moved to the same *rhythm* (precise female).

*Evolving stage theme: team tensions and disappointment as metaphor*

Not all teams succeed. When teams fail, team members are disappointed. There were two business and three educational leadership teams that succumbed to their team problems. According to Senge (2006), members may work extremely hard, but because of team tensions or non-alignment within the team, energy is wasted. In some cases, if alerted early on, the instructor tried to apply coaching mechanisms to alleviate tensions and render support (Bolton, 1999). The subsequent metaphors portray aspects of disappointment and illustrate the fragility and delicateness of the team experience in regard to interactions and relationship-building.

Education students stated:

Our team was as *strong as a paper chain*. We had the appearance of being strong and linked, but when the pressure was applied, the links proved to be too weak to sustain the pulls and pressures. Toward the end, we were all starting to break apart (technical female).

We were like *oil and water*. Unfortunately, we did not mix (sequential female).

We were like the *board game*, "Sorry" – sorry, but we didn't work out (sequential female).

We were all *divas* (technical female).

We remained separate – our flavors didn't blend (precise female).

[She] routinely sat *outside of the circle* and acted as if she was not part of the team. The three of us came up with a unified vision and plan of action. [She] did not play a part (precise female).

Business students stated:

Our team was like the *glue in a post-it note*. It sort of bonds, but not really . . . and as soon as the bond is broken . . . then the bond will not occur again (sequential female).

Our team became a *dysfunctional family* (technical male).

Being part of this team was like being a member of a *wedding party* for which no plans had yet been made (sequential male).

I felt more like a *mediator* than a team member (precise female).

We were a *diamond in the rough* that had the potential to become a five carat sparkler – but didn't (sequential/precise female).

I would have liked to throttle some of them sometimes . . . unfortunately, I didn't feel they were supportive in providing feedback . . . I felt *hung out to dry* with no one to bring me in (precise female).

*Evolving stage theme: collaboration and the team system as metaphor*

To prevent team problems, Senge (2006) recommends adopting a systems approach to teams. This approach focuses both on the tasks to be performed and communication with the people performing the tasks. Teams that were successful communicated

continuously. The interaction of team members as part of a positive interconnected, unified and collaborative system was described. Systematically, all team members meshed into a whole or unified team. There was a coordinated system of interaction. Students from education and business disciplines commented metaphorically on the systematic unity and wholeness of their teams:

Education students stated:

Our team process was like *baking an apple pie*. Many ingredients are used and although they are used in varying amounts, no one ingredient is more important than the rest and leaving out even one of those ingredients can change the taste of the entire pie (sequential male).

Our team was like a *résumé* – all on the same page. We each had different parts and experiences, but put the information together to represent the whole (technical male).

In *football*, the players on the team all have different jobs and assignments but have to execute properly in order for the play to be successful ... that's what we did (sequential/technical male).

Business students stated:

We were like *contractors building a house*: the architect, roofer, window installer, plumber, electrician and painter; we all worked together and – presto we had a house (sequential female).

It was kind of like the *planet earth* ... and we revolved around it (precise/technical male).

Even with some negative factors, I think it was a good experience to work with others, get their point of view, get others' ideas, and so on. This in itself, I believe is "*thinking outside the box*" (sequential male).

*Realization stage theme: the energy of the final team product as metaphor*

Team members illustrated and alluded to their team's energy as they referred to the completion of their final product. To get all the team members working in the same direction takes continuous and coordinated energy (Senge, 2006). To do this effectively, all team members have to be accountable and responsible for the end product with all team members interacting and contributing toward that final team product (Katzenbach and Smith, 2003).

Education students stated:

Our team members were like *runners in the Big Race*. We always kept the major goal in mind and tried not to deviate too far from our course. We knew what we wanted to accomplish and set small, achievable goals along the way to help us get to the end result (precise female).

The *jockey on a horse* believes that slow and steady wins the race, but then gets nervous or caught up in the competition. Towards the end [*the jockey*] *pushes hard to the finish* and that's what we did (technical female).

Our team was like a *newborn colt*. It stumbles at first and then keeps right on going (confluent female).

Business students stated:

We became the *ant and the grasshopper working together*. We had some delayed starts, and then had the *final rush* for successful completion of the project (precise female).

I also stated that [one team member] would be a weak link . . . [I was wrong . . . She] was the “tortoise” in the book, *The Tortoise and the Hare*. [She] proved to me that *slow and steady really does win the race* (sequential male).

In the beginning [we] didn’t seem to be on the *same page*, but after a few meetings, we seemed to interact better. We still had our personal differences in how things should be done, but we *steadily worked through them . . . and realized our goal* (sequential female).

*Realization stage theme: fusion as metaphor*

The team members who assessed their teams as “real teams” or “high performance teams” (Katzenbach and Smith, 2003) seemed to advance to a broader or deeper level of progress in their stages of team development. This level did not only show evidence of interaction, collaboration and cooperation of team members, but indicated a fusion of team members into a sense of oneness or wholeness.

Education students stated:

We were like a *deck of cards*. You never know what you are going to get, but as you continue to go through the deck, you eventually get four of a kind – and that is what happened to us, we became four of a kind (technical female).

Business students stated:

We were separate individuals, but our talents fused and we became *a team with one soul* (sequential male).

*Realization stage theme: a problematic team experience*

Team tensions did develop on some teams and when the instructor was alerted, the instructor sought to get students to focus and reflect on how changes could be implemented. For example, the instructor would ask students to turn the reflective mirror inward and asked, “what did you do to contribute to the tension on the team?” or “what can you do now to ease the tension on the team?”. Out of the 17 teams, two business and three education teams succumbed to their team problems and did not have positive team closure with all team members interacting. In three cases, if a member withdrew, the other team members compensated for their withdrawal by taking on more responsibilities and in effect, coincidentally becoming more cohesive. One team member metaphorically stated that they were aware of the “missing team member” and this awareness brought them closer as a team.

Additionally, two students who “withdrew” were able to contribute to the team product, but they were not able to build positive team relationships with the other members.

When there were team problems, the other members became dissatisfied with the team process that evolved and rated their teams as “working groups” or “pseudo teams” rather than “real teams” or “high performance” teams (Katzenbach and Smith, 2003). For example, one male education student commented, “I think we had the potential to be a real team, but we never functioned to our fullest capacity”. Conversely, a female business student stated:

I think we became a true team. I realized it when we were seeing other teams perform our ideas. We would all get so mad and upset . . . You only get that kind of feeling in a real team.

Moreover, in some cases, even on “real teams,” there were team members who were dissatisfied with other members at various times in regard to either their interactions or performance. Very often, these individuals were blamed for contributing to a lack of a team’s sense of wholeness. One female business student stated:

I dreaded being on a team, then enjoyed the project, and now I am so frustrated with some people that I never want to be on a team again . . .

Later on, she commented:

. . . any hard feelings I might have felt toward [my team member], I’ve overcome because he really means well, and he has proven that.

Students explained their disappointment, dissatisfaction or changeability with metaphors. Some students claimed to have been thrown “curve balls,” or experienced “ups and downs,” or “waves” of difficulties. The following metaphors illustrate disappointment, annoyance and even anger:

Education students stated:

[He] was *less than a social-loafer*; he chose to be a non-entity on this team. We gave [him] so many opportunities to *step onto the plate* and he refused them (precise female).

He talked the talk but *did not walk the walk* (precise female).

I felt like I was on *Survivor* because [she] *needed to win* everyone to her side (technical female).

I would not want to *vote off* anyone, but [she] did *absolutely nothing* for our team (precise female).

[He] was a terrible participant and *dragged us all down* (precise female).

Business students stated:

We did not feel she was *pulling her weight* on the team . . . she has the *weak link* on the team (precise male).

[She] is like an *eye irritant*. You can function but you have got stuff in your eye (precise/technical male).

He *hung us out to dry* (technical male).

I do not think that [she] intentionally meant for [another team member] to do her work. But it left a *sour taste in her mouth* (precise male).

Who do you want at the *wheel when you spot an iceberg dead ahead*? As for me, I am happy to take a leadership position but my mindset at the time was, let us see how it works with [her] *steering the ship* . . . wrong move (sequential male)

It was noted that the more precise learners or team members who had higher expectations for their teams, seemed to be more “dissatisfied” with their teams when evaluating their team members or the team experience that had evolved. Many of these precise learners indicated that they expected their teams to be “perfect” and when they were not, they rated their teams lower on the team continuum (Katzenbach and Smith, 2003, p. 84). Conversely, the more confluent learners on a team tended to give their teams higher ratings in spite of team problems, tensions or “waves” of difficulties.



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Confluent learners seemed to be more flexible and comfortable with the trial and error of a team situation.

*Reflective stage theme: learning and appreciation of members as metaphor*

Both business and education students widened their learning by applying metaphoric thinking to team units. Teams that ended positively applied team strategies recommended by the instructor and team theorists (Katzenbach and Smith, 2003; Senge, 1990). More importantly, team members learned to appreciate one another. Several team members in both disciplines summed-up their final team process and the change each experienced with the following statements. Even with the tensions that were evident, students claimed to have learned and widened their team skills.

Education students stated:

*The load was no longer feeling heavy.* The agitation of what we had to do was becoming fun ... we were able to joke and tease each other, while functioning at a higher level ... *we ultimately learned* to share and create, while maintaining our vision (technical female).

*I learned to be accountable* to the team system and not just accountable to myself (sequential female).

Being part of something *larger than myself* was an *exhilarating learning experience* (sequential/precise female).

Business students stated:

I have never experienced a team that worked so well together like ours did ... *I learned team members could be in sync* (precise female).

Although our group had some minor "bumps in the road", overall I was pleased with the outcome. *I actually did learn a lot* in this team experience (sequential female).

My ideas about teams have *shifted 180 degrees* ... *I know* teams are possible and *I know* they can outperform any individual (sequential/precise female).

### Conclusion and recommendations

In this study, MBA and educational leadership students interacted in diverse learning teams within their disciplines. Teams in both disciplines were compared and contrasted. There were some differences noted in how students initially approached the team task. The use of metaphors as an instructional technique helped the instructor devise a multi-stage process of team development. Continual discussion of metaphors with students may indirectly provide an instructor with the means for gaining access to facilitating the teams as well as allow team members to engage in dialogue that advances team performance. The use of metaphors may become not only a pedagogical tool for reflexivity, but also a diagnostic tool enabling the instructor to uncover team tensions or problems, render support, precipitate discussion and thereby, further team unity and identification to the team.

By implementing a metaphoric exercise, a team's energy may be maintained or jumpstarted. The instructor's new action-plan now expands metaphoric exercises and questions at several key stages as the team process evolves. The use of metaphor may also help a team unite as team members engage in discussions about their metaphors

and thereby, learn from one another. If the discussion is widened to class members, teams may learn from other teams, but more research is needed in these areas.

Moreover, the matter of assessment in teams is one that is ripe for further study. Too often students assess their teams on the basis of their acculturation and the expectations they have regarding team development. The differences in the assessments and a student's reaction to the team experience seemed to be traced to a student's learning pattern. But more research is needed in this regard. A follow-up study might explore students' metaphoric statements and compare them directly to their learning patterns. In this study, some students seemed to assess their teams as a result of their learning patterns as well as their preconceptions and expectations regarding teams and team experiences. Another suggested follow-up study might explore the utilization of various instructional techniques in regard to instructors and their representative use-first learning patterns. For example, the instructor and action-researcher who conducted this study was designated as a confluent and precise learner and as such, this learning pattern was displayed throughout this study.

#### **Importance of the study**

This study may help university instructors guide their students in developing their team skills and enhancing their creativity through the application of metaphors. It may also enable instructors to expand their use of metaphoric thinking in university leadership classrooms in order to hasten team unity and enhance team performance. More importantly, this study may further team action-research studies and precipitate conversation among business and education academicians, researchers, practitioners and students.

#### **Limitation of the study**

This exploratory action-research investigation was conducted by one researcher primarily, who was also the instructor. Researcher bias may be a factor. Additionally, the results of this study may be applicable only to its participants.

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