Emerging Team Leader Dynamics in Contingent Situations: A Doctoral-Level Simulation

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The literature on how a team leader emerges during the initial stages of a team formation presents a divergent landscape of possibilities. Most of the approaches focus on attributes, personality types, the influence of social tendencies, or relational capabilities. Yet these different theories and models suggest that many questions remain on this topic. The purpose of this paper is to illustrate the value of a simulation as an experiential basis for a classroom discussion on emerging team leader dynamics. Simulations have proven valuable in business education by providing an engaging student-centered environment that bring together theoretical learning and real life situations. This paper describes the outcomes of a manufacturing simulation among doctoral students intended to stimulate a discussion on leader-team dynamics, and acted as a source of research topics.

The inclusion of simulations in the classroom—if properly designed and adapted to the course content—have demonstrated to be a valuable learning tool across business courses and disciplines. Here the literature shows that simulations in the business classroom have proven invaluable for capstone courses (Walter, Coalter, & Rasheed, 1997) in appreciating the complexities of international business (Klein & Fleck, 2000), in providing experiences for practicing corporate global strategies (Doyle & Brown, 2000), in testing responses to business ethics situations (LeClair, Ferrell, Montuori, & Willems, 1999), and in enhancing business communication skills (Saunders, 1997). Simulations can also provide basic entrepreneurial experiences (Neck & Greene, 2011), serve as a test of management abilities (Adobor, & Daneshfar, 2006), and also serve as a basis for leadership skills training (Raybourn, Deagle, Mendini, & Heneghan, 2005), to mention a few. In effect, an extensive search of the literature shows there is a long history demonstrating the value of simulations in the business classroom (Chin, Dukes, & Gamson, 2009).

Among the recognized benefits of leadership simulations as an educational technique are their ability to engage students more deeply into course concepts by means of a learner-centered environment (Knobloch, 2005), the opportunity they provide to associate theoretical learning with real life situations (Adobor & Daneshfar, 2006), and the use they have as a tool to enhance cognitive value of theoretical models (Anderson & Lawton, 2009). Further benefits of simulations include the ability of testing and assessing learning outcomes (Thomas, et al., 2004). Yet despite these benefits, the literature also cautions that when using simulations, a clear link to course content and learning objectives should be established (Wedig, 2010). Otherwise, there is a risk that either the lure of latest technologies or the excitement of a simulation could overcome or detract from attaining educational outcomes. The literature also cautions simulation designers and users about the dangers of biases in simulation development (Goosen, Jensen, & Wells, 2001) and warns about the typical high costs involved in purchasing simulations (Glazier, 2011).

The pedagogical value of using simulations in the classroom is also well documented in the literature. Compared to traditional approaches such as the use of textbooks and case studies, students view simulations as a more effective learning tool (Farrell, 2005). As a pedagogical tool, simulations encourage creative thinking and constructive learning (McMahon & Miller, 2013). Correctly designed, simulations and games are considered effective pedagogical techniques when dealing with complex and controversial topics (McDaniel & Telep, 2009) or as a showground for refining skills (Pettinge, Cojanu, & Walters, 2011). When applied to capstone courses, simulations offer an integrative perspective of students’ acquired knowledge (Stephen, Parente, & Brown, 2002). Most notably, simulation-based pedagogies increase student-to-instructor engagement (Auman, 2011), as well as student-to-student interactions (Cynthia & Kafai, 2008). Basically, there is sufficient evidence in the literature to consider the use of simulations in the classroom as a powerful, versatile, and effective pedagogical approach (Ellington, Fowlie, & Gordon, 2013).

Regarding the value of simulations to develop leadership skills, the literature shows abundant research across many disciplines. Leadership simulations are plentiful in the fields of education (Aldrich, 2009; Gorton, Alston, & Snowden, 2006; Halverson, 2005; Vogel, et al., 2006), in the military setting (Raybourn, et al., 2005; Shaffer, Halverson, Squire, & Gee, 2005; Smith, 2010), and in healthcare (Cant & Cooper, 2010; Kyrkebo, Brattebo, & Smith-Strøm, 2006; McGaghie, Issenberg, Petrusa, & Scalese, 2010). Within the
business disciplines there are simulations for project leadership (Lustig, 1996), investment leadership (Richard, Holton, Elwood, & Katsioloudes, 2014), leadership styles (Jacobsen & House, 2001), leadership motivation within the team setting (Solow & Leenawong, 2003) and in the leveraging of technology to develop leadership capacity (Antes & Schuelke, 2011). Simulations associated with leadership models include transformational leadership (Dvir, Eden Avolio, & Shamir, 2002), collaborative leadership models (Dentico, 1999), leadership and emotional intelligence (George, 2000), ethical leadership (Allen, 2008), creative leadership (Leijnen & Gabora, 2010) and crisis leadership (Baran & Adelman, 2010; Hunsaker, 2007). There has also been a recent interest in studying the dynamics of leadership in the virtual environment (Gurley & Wilson, 2011; Hambley, O’Neill, & Kline, 2007). Again, the value of using simulations for leadership development in business—as well as in other disciplines—is well documented in the literature.

Despite the significant amount of leadership simulations available in the market, it was quite evident that simulations directed at providing an experiential basis for emerging team leadership in early team formation was lacking. In other words, simulations offering experiential insights into the process by which a leaderless team in the preliminary stages of formation assess and recognize the exercise of a member’s influence in organizing the team efforts towards the completion of a goal were difficult to locate. This potential gap in the literature was sufficiently acute to prompt an interest in designing and testing a simulation dedicated to this objective.

On the specific topic of emerging leader dynamics in teams, the literature tends to lean quite heavily on attributes that guide the selection process. For example, Smith and Foti (1998) observed that dominance, intelligence, and general self-efficacy are major factors, while Kickul & Neuman (2000) demonstrated that extroversion, openness to experience, and cognitive ability were predictive of emergent leadership behaviors. In similar fashion, Norton, Ueltschy, Murfield, and Baucus (2014) argue that competence, fluid intelligence, willingness to serve, credibility, and goal attainment are the most prevalent characteristics that affect the emergence process. Other research—beyond just listing attributes—suggests emerging leadership is centered upon personality tendencies (Brunell, et al., 2008). A meta-analysis of gender and emerging leader dynamics shows that social role tendencies are a factor in deciding for a team leader (Eagly & Karau, 1991). Zhang, Waldman, and Wang (2012) hypothesize that the team member capable of envisioning and communicating a vision of how to accomplish the task tends to emerge as the leader, while Bergman, Small, Bergman, and Bowling (2014) noted that teams expected a social-oriented leadership in the early stages of a project, with a shift towards task orientation effectiveness further along a project. In another study, Markulis, Jassawalla, & Sashittal (2006) found that emerging leaders are less effective than team leaders who are designated or are rotated to accommodate for different types of team dynamics. Yet there is also evidence that teams in which leaders emerged outperformed those without emergent leaders (DeSouza & Klein, 1995). Surprisingly, communications skills alone showed to be insufficient as a factor in selecting the emerging leader (Riggio, Riggio, Salinas, & Cole, 2003). In essence, research characterizing the dynamics of emerging team leadership to date focuses on attributes, personality types, the influence of social tendencies, and relational capabilities. Yet despite these approaches and models, many questions remain on this topic (Bligh, Pearce, & Kohles, 2006).

The purpose of this paper is to illustrate the value of a simulation in providing an experiential environment for a team development and leadership course at doctorate level. The emphasis of the simulation was to provide a classroom situation for the emergence of a leadership role that would be analyzed against the various models in the literature, serve as classroom device for a discussion on leader-team dynamics, and act as a source of research topics.

**Methodology**

The doctoral-level course selected for this study was on Team Development and Leadership, in which the objectives focused on a variety of concepts and practices associated with developing and leading an effective team. Different approaches to organizing, motivating, and achieving high performance are addressed, along with barriers to effective team efforts. Students identified current challenges and issues confronting leadership and applied positive team management strategies in a range of organizational settings. Of relevance to the course and this study were the dynamics associated with the emergence of the leadership function in an impromptu team.

The classroom simulation consisted of designing and implementing a production line capable of manufacturing at least 200 units per hour. The simulation involved seven doctoral students, four males and three females, most of whom with more than half of the required coursework. The objective of the simulation was to analyze the dynamics by which the leader emerged and performed in a team setting. Materials and tools for the simulation were provided with no instructions other than the need to produce the highest possible output with minimal number of defects. An instruction sheet listed the final specifications and expected quality attributes for each unit produced. The students were allowed fifteen minutes to organize for a five minute pilot run, then a fifteen minute review of the pilot run results with an opportunity to suggest process improvements. The pilot run produced 10 units in five minutes, but with four
The students completed a five-minute production run with the instructor performing the quality inspection of each final unit produced. For the formal run, the students produced ten units with only one defective. The segments of the production run were videotaped in time lapse mode as a way to document the interactions and facilitate the analysis and discussion of the simulation results.

The post-production discussion was quite animated and was directed at how the leader had emerged and performed. None of the students had manufacturing experience, but one of the students with military experience took the initiative to structure the production line, assign responsibilities, and provide real-time feedback on performance. The class was asked why they followed this leader's instructions since he was not appointed by agreement within the team. Some of the answers were, “He gave us a clear coherent picture of what to do…” Another student said, “He took the initiative and had energy in doing so…” A third student observed, “We all had ideas on how to design the production line, but he managed to keep us on task…” Overall, their observations were summarized thusly: the leader (a) takes initiatives that are credible and convincing to all, (b) recognizes individual contributions forms and sustains unity of efforts, and (c) constructively directs and adapts.

Once students had presented their observations, the students were asked to search the scholarly literature for models of how leaders emerge in teams. Once the search was conducted, the discussion of the simulation was framed around the discoveries from the literature.

Two articles dominated the post-simulation discussion. An article by Norton and colleagues (2014) suggests that perceptions of competence, fluid intelligence, willingness to serve, credibility, and goal attainment form the basis for the emergence of a team leader. In this case the doctoral students were in agreement with the authors but noted the difficulties of listing attributes for team leader emergence: specifically, the list may not be exhaustive. Although the students agreed that some of these attributes were deciding factors, not all of the attributes were obvious in the emergence of the simulation leader. Other factors, such as the ability to work and communicate a unanimously agreeable solution and being able to relate to team member contributions were more significant yet absent from this model.

The second article came from Berson, Dan, and Yammarino (2006). In this study the authors posit that relational dynamics, particularly by means of attachment styles, represent a significant consideration in the emergence of a team leader under contingent conditions. Here the student observed that relational dynamics were crucial to the emergence of the team leader in the simulation. The discussion revealed that although each individual had a mental representation of how to design the production line, factors such as experiences, competencies, and knowledge of leadership models did not emerge in the early stages until an open, albeit unstructured, dialogue was initiated. Rather than a formal selection process, the leader in this case was a product of an unstructured dialogue. Ultimately, the doctoral students agreed that proficiency in relational dynamics—more than competency, experience, and desire to complete the objective—was a significant factor in setting the stage for the emergence of the team leader. The students noted that without an open initial dialogue, they suspect that even a member with exceptional attributes would not have emerged as leader. Interestingly enough, “professional mentoring” is the dissertation topic of the student that emerged as the team leader, and relational proficiency, as well as attachment styles, are key elements of successful mentoring (Gormley, 2008; Ragins & Verbis, 2007). The simulation offered substantial credibility to the Berson and colleagues (2006) argument that relational dynamics and attachment styles—as a model—played a key role in the team leader emergence.

Discussion and Suggestions

The value of this simulation was that it provided an experiential environment as a primer for a discussion on the emergence of a team leader role under impromptu conditions among highly educated students. The students’ main observations of how a leader emerges were summarized as the following: the leader a) takes initiatives that are credible and convincing to all, b) recognizes individual contributions forms and able to sustain unity of effort, and c) constructively directs and adapts as the team evolves. These experiences were then compared and contrasted against various models of leadership emergence from the literature. Essentially, the simulation provided a practitioners view to some of the challenges of leader emergence, served as common ground for discussion of leader-team dynamics, and acted as a lens to identify further areas of research.

The manufacturing simulation and ensuing discussion on factors that led to an emergent leader brought the topic of relational dynamics to the forefront of research possibilities. Doctoral students noted that a more comprehensive understanding of relational dynamics, although more readily available in the psychology and social sciences disciplines, were rarely addressed in any of their courses to date. Only a few students had been previously exposed to discussing a specific relational model (Rojas, 2015) or to a wider understanding of relational typologies (Clydesdale, 2009; Weymes, 2002). These students noted that the leadership literature is clear on the relational dynamics...
in the cases of transactional and transformational leadership modeling, but questioned if there were other forms of relational modes and the effects of these modes upon leadership dynamics. Without further research it was not clear if the scarcity of relational typology modeling within the leadership discipline was the consequence of assumptions, a subtle reference for the reader to reference this topic in other social disciplines, or as an unintended omission. Curiously enough, the interpersonal dynamics displayed during the simulation correlates quite well with the relational leadership model. In this model, leadership is socially constructed (Uhl-Bien, 2006) and nurtured by means of relational dialogue (Cunliffe & Eriksen, 2011).

Certainly a simulation with only seven doctoral students is insufficient as a platform to derive conclusions comparable to a fully designed research project. Nevertheless, the classroom simulation was effective in facilitating the opportunity to associate theoretical learning with real life situations and in analyzing the dynamics by which the leader emerged and performed in a contingent team setting. More importantly, the simulation was instrumental in exposing these doctoral students to the area of research that characterizes the dynamics of emerging team leadership. In the discussion and by means of the literature, it became evident that many questions remain on this topic (Bligh et al., 2006). Yet despite the limited scope of the simulation, the experience did validate many of the benefits of leadership simulations and especially confirmed the value of adding meaningful simulations to the doctorate level curriculum as a vehicle to stimulate scholarly discussions and discover needed areas of further research.

References


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