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Shared Leadership Lessons: Adapting LEGO® SERIOUS PLAY® In Higher Education

Mary Anne Peabody,

Elizabeth F. Turesky,

University of Southern Maine, United States of America

Abstract:
The adaptation of LEGO® SERIOUS PLAY® can be used as an innovative facilitated teaching methodology to aid in the leadership development of graduate students. Through a four-step kinesthetic experience, students developed awareness of key elements of shared leadership through metaphoric storytelling. Results of the adaptive Lego exercise indicated affirmative participant outcomes that included: the realization of visual clarity when using metaphoric three- dimensional building to understand course concepts, the ability to experience group dynamics and communication skills in real-time, and the recognition that meaning-making through storytelling can be an emotive experience. The results of this study indicate that using the kinesthetic brick modelling methodology for leadership practice is a promising higher education andragogical option.

Keywords*:* Shared Leadership, Leadership Education, Experiential Learning, LEGO® SERIOUS PLAY®

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1. Introduction

Building shared leadership capacity in college students is at the heart of personalized, engaging, and relevant learning. Today's students need to be prepared for a workplace in which teamwork, collaboration, and effective communication are the norm. Much of the world's work is accomplished through teams and so, efficiency, productivity, and problem solving all depend on group-level processes (Forsyth, 2014). Inherent in leadership with teams is the ability to recognize the important role emotions play across any group process (Turesky and Peabody, 2018). As leadership educators, it is our responsibility to prepare our students psychologically, socially, and intellectually by creating supportive learning environments that enhance knowledge acquisition. How we develop safe environments, curricula, and andragogical practices to cultivate and develop leadership potential often involves experiential and social constructionist practices.

By its very nature, experiential learning typically involves kinesthetic (bodily or hands-on) experiences, and when coupled with social constructivist teaching methodology can deepen student learning (Barton and Ryan, 2014; Mobley and Fisher, 2014; Moon, 2004). Constructivist theory views learning as an active process, in which participants construct new knowledge based on their current and past knowledge and experiences (Phillips, 1995). The participants in the learning process reflect on prior knowledge and construct their own views of the world through experiences occurring in their physical and social environments (Kolb, 1984).

Social constructivism implies that knowledge is constructed through interactions with others (Bruning, Schraw and Ronning, 1999; McKinley, 2015). The primary goals of social constructivism in a classroom are to provide experiences that expose students to varied perspectives, thereby enhancing a respect for diversity; to stimulate multiple ways for students to consider, understand, and attempt to resolve problems; and to encourage ownership and self- awareness in the learning process (Schweitzer and Stephenson, 2008; Willey and Burke, 2011).

Integrating social constructivism and experiential learning into the andragogical practices of leadership educators involves a myriad of specific classroom techniques and strategies. The literature on signature andragogical practices of leadership educators in higher education reveals that most faculty use a variety of teaching techniques including: simulations, writing assignments, journaling, blogging, portfolio development, experiential activities, and classroom discussions (Allen and Hartmann, 2009; Jenkins, 2013). Several leadership educators believe combining experiential learning, classroom discussion, and reflective writing together offers students learning experiences with significant social, psychological, and intellectual dimensions (Allen and Hartman, 2009; Fink, 2003; Jenkins, 2013).

This paper introduces the use of LEGO® SERIOUS PLAY® (LSP) facilitation as a means to teach social, psychological, and intellectual leadership principles through experiential learning connected to the coursework materials. LSP is a methodology that uses Lego bricks as a medium for communication, expression, problem solving, and leadership development (The LEGO Group, 2010). With LSP gaining popularity

across higher education (James and Brookfield, 2014; Nerantzi, Moraveju and Johnson, 2015), this current study utilized an adaptation of LSP to understand the experiences of graduate students in a leadership course offered in a public University setting. With a focus on shared leadership (Pearce and Barkus, 2004), students gained knowledge by using the Lego bricks to visualize ideas, and to explain those ideas through metaphor and story.

The significance of storytelling in the leadership literature highlights leaders' use of storytelling for a variety of purposes in organizations. Auvinen, Aaltio, and Blomqvist, (2013) found that leaders use stories to inspire, motivate, build trust, influence superiors, solve conflicts and establish clear directions. Storytelling can also help leaders be more strategic when navigating an organization through difficult changes (Boal and Scultz, 2007). Leaders who tell stories can also influence the way people think, create a shared vision, and provide comfort and hope (Bolman and Deal, 2013). Cleverly-Thompson (2018) explored teaching storytelling as a leadership practice to help leadership education students better understand how to develop, recognize, and practice the art of leadership storytelling and to identify leadership situations in which to tell or not tell stories.

In this article, we first present a brief overview of the course objectives for the leadership course, followed by literature on shared leadership and experiential instructional strategies. Next, we describe the LSP method generally, along with details of how we utilized LSP within the course activities. Finally, we conclude with a discussion of the impact on students, implications for LSP leadership development in higher education, and the potential for future studies.

2. Course Goals and Objectives

The goal of the face-to-face course was to expand and deepen students' knowledge about leadership theory and practice, more specifically, shared leadership. During the semester, students investigated theories, research, and application of group dynamics to understand better the interplay of the individual and the group in the context of organizations. Students engaged in a variety of readings, discussions, self assessments, writings, experiential exercises and simulations designed to demystify the connections between theory and practice. Students read and discussed topics such as emotional and social intelligence, problem solving, decision making, creativity, learning systems, communication and conflict management. Students engaged in a variety of activities and inventories aimed at improving self-awareness, self-renewal, insight, empathy, understanding social systems and workplace change and emotions.

Therefore, much of what students were learning about groups came from their participation in a "lab" like environment. The learning outcomes of the course included a critical understanding of a student's simultaneous roles as team leader and participant and competence in both the analysis of group functioning and communication among the participants.

3. Literature Review

3.1. Shared leadership

Since understanding shared leadership was a course objective, students were given multiple opportunities to experience this paradigm. In shared leadership teams, initiative and influence are distributed among individuals instead of centralized in the hands of a single individual who acts in the role of a superior (Pearce and Conger, 2003, p.1). The shift in perception about leadership as shared is important in that formal leaders of cross-functional and virtual teams are highly dependent on the expertise of each team member. Leadership in such settings is not determined by a formal position of authority or dominance but rather by the team's leadership needs in any given moment. In this respect, each member brings a unique perspective, knowledge, and capability so that leadership action is distributed across the team.

The concept of shared leadership has emerged with increased regularity within the leadership literature, including a focus on its practical application (Pearce and Manz, 2005; Pearce and Sims, 2002; Pearce, Yoo and Alavi, 2004; Sivasubramanium et al., 2002). Several studies have demonstrated the positive influence of shared leadership and have argued that it yields higher team-level performance benefits than do traditional hierarchical leadership structures (Avolio et al., 1996; Carson, Tesluk, and Marrone, 2007; Perry, Pearce, and Sims, 1999). Pearce et al., (2004) in a study of virtual teams, also found shared leadership to be a more important predictor, rather than vertical leadership, of self-rated problem solving quality and effectiveness. In a longitudinal study of change management teams, Pearce and Sims (2002) found shared leadership to be a more useful predictor of manager, customer, and team self-ratings of effectiveness than vertical leadership. Study conducted by Hooker and Csikszentmihalyai (2003) in research and development laboratories and research conducted by Shamir and Lapidot (2003) in the military, all suggest that shared leadership enhances team effectiveness. Finally, specific to higher education, Avolio et al. (1996) found that shared leadership significantly improved the self-ratings of student leadership team effectiveness.

3.2. Experiential Learning

David Kolb's conception of experiential learning (1984) has impacted the practices and research of many scholars across multiple fields of study. Kolb's (1984) contributions have provided significant insights into how individuals and organizations learn, change, and grow. Turesky and Wood (2010) reported that Kolb's exploration of the complications surrounding organizational change efforts had included a meaningful analysis of the multifaceted process of human learning. Not surprisingly, then, Kolb's theory of experiential learning provides opportunities for students in leadership programs to explore effective behaviours in handling the myriad tasks that they will face.

In the classroom experience of LSP, the instructor models skilled facilitation, creating a supportive space for student's expression of feelings as well as the appreciation and application of team member strengths. LSP is an opportunity for students to

externalize ideas, bringing clarity of shared leadership to life, allowing students to observe in themselves and others leadership theory in practice.

3.3. The established Lego Serious Play (LSP) Process

LSP is a thinking and problem-solving methodological approach that was originally developed by the LEGO group for use by leading business managers, organizational thinkers, and psychologists; drawing upon research from each of these groups (Gauntlett, 2007; The LEGO Group, 2010). The LSP model is currently utilized internationally in a variety of contexts, including business, consultancy, higher education, research, and life coaching (Kristiansen and Rasmussen, 2014).

LSP is a process where individuals build metaphoric structures with LEGO bricks, in a relatively brief amount of time and in response to questions or prompts posed by the facilitator (Kristiansen and Rasmussen, 2014). The process includes several rounds of building, storytelling, and reflection that serves as a catalyst to capture thoughts and feelings. Participants follow a process whereby they construct models with a collection of bricks specifically selected by the kit designers to inspire the use of metaphoric story-making representative of realizations, struggles, complex systems, and potential resolutions (James and Brookfield, 2014). The LSP kits include special pieces that allow for "ready-made" metaphors, as well as many nonspecific bricks. When used in the context of University coursework, students also benefit from group process dynamics, including collaborative learning, shared model building, communication skill development, group cohesion, and focused attention in reflection of experiential learning.

3.4. LSP methodology and modifications for higher education

The LSP core method includes a four-step process, a set of several application techniques that increase in complexity dependent on context and goals, and a number of process principles (Kristiansen and Rasmussen, 2014; The LEGO Group, 2010). While a comprehensive explanation of the established methodology is beyond the scope of this article, a brief review of the four-step process applicable to this study is offered to identify where adjustments were made from the original LSP process to accommodate the methodology within the course.

Modifications for use of LSP in higher education are necessary, as the established model of LSP is typically conducted in a workshop format lasting anywhere from 2-3 hours to two days. While characteristically conducted with adult groups of 6 to 12 participants, successful modifications of the methodology have also included LSP use with as few as two individuals (Kristiansen and Rasmussen, 2014) and academic experiences extending over full semesters (Gauntlett, 2007; James and Brookfield, 2014). While LSP adaptations such as the aforementioned are needed for use in a University classroom, the core process of building symbolic or metaphorical representations, in a non-judgmental and playful environment, remains the same.

In the context of this study, the core steps included: (a) a facilitator posed a question; (b) students built a model in response to the posed question; (c) students told their

metaphoric story; and (d) questions and reflections by all participants were shared to crystallize key insights, make connections, and summarize any content (LEGO® SERIOUS PLAY®, 2014).

4. Research Methodology

A phenomenological approach (Creswell, 2003) was used to enable the participants who had experienced an adaptation of the LSP phenomenon to describe their thoughts and feelings about the experience. Reflection papers, as artefacts of the graduate students' deep processing of the course material (McAuliffe, 2011), were examined to understand better how the students made sense of their LSP experience with one another.

In this study, researchers used a constant comparative method and thematic analysis to examine the reflection papers. Thematic analysis is a data-driven approach to coding data into meaningful themes or concepts (Boyatzis, 1998). This approach was selected because it is consistent with a social constructivist paradigm. Next, using a constant comparative process (Morgan, 1993), authors synthesized common themes across student papers.

4.1. Participants

Eleven leadership graduate students (four males and seven females) from a graduate level leadership and organizational studies course at a north-eastern public American university served as participants. In addition to attending graduate school, they all worked full-time. Several were veterans. The purpose of the small sample was to understand the experiences of adult learners as they were immersed in a group process activity, facilitated by two faculty members for a two and half-hour long session during a leadership class.

4.2. Procedures

During the LSP class session, students worked in small groups (from 3-5 participants) already assigned to a community engaged project and through classroom discussions of small and large groups. Therefore, the group members already knew one another both through collaboration on the project and based on in-class discussions held both as a full classroom group and within the smaller groups. Students had previously taken the Clifton Strengths finder inventory (Rath, 2007) and the Kolb Learning Style Inventory (Kolb and Kolb, 2005); so they shared a common language around these two inventories. The LSP course was facilitated by a University faculty member who is a certified LSP facilitator and has a background in executive leadership. The course instructor was present during the LSP course as a second facilitator and course content expert.

The initial Lego task was for students to build as tall and sturdy a model as possible in small groups and without verbally communicating. The facilitator did not imply that it was a competition; rather the instructions were to build in order to familiarize the students with the Lego materials as the first step of the process. The second building prompt asked the students to work individually on a build that represented the answer

to the question, "What barriers get in the way of having a strong shared leadership team in an organization?" Students were allowed to communicate verbally with one another, although they were individually building their own thoughts and ideas with the bricks. For the third prompt students were asked to construct a single shared build by joining their individual builds together and by creating a "mega-story" that highlighted individual stories within a collective story.

Next, students were asked to create an individual build that represented one or more of their strengths that are helpful to organizational change efforts. Building upon the students' familiarity with the Clifton Strengths finder (Rath, 2007) and the Kolb Learning Style Inventory (Kolb and Kolb, 2005), these prompts were selected as an extension of previous class discussion, offered to connect the course content in a kinesthetic learning style format. During the final build, students were asked to use specific Lego pieces to create linkages (hoses, chains, bricks) between their identified strength and the individual models of their classmates. In other words, students selected a metaphoric connection representing a strong, medium, or small connection to a specific strength which they might want to harness in effective and shared teamwork.

5. Results

Immersion in the data revealed similarities between the student participants. Three themes are presented with direct quotes from participants.

Sharing visual clarity of course concepts

All students felt the experiential nature of LSP brought many of the course concepts to life and deepened their understanding about leadership skills and group dynamics. One student described it as:

> It was not until the Lego Serious Play class that I truly saw the application of not just knowing my strengths but seeing how I can embrace them and articulate what these strengths mean to me and how this can be an asset to group dynamics.

Another student reflected upon the differences in individual builds vs. shared builds and how the LSP experience highlighted how different individual perspectives can be despite having the very same experience. She stated that students interpreted the building prompts uniquely, and it was not until the shared builds that these interpretations became more apparent. Appreciation of differences was symbolically presented in the models themselves and the associated narratives.

Another student reflected:

> With the final build, I was surprised to hear how some people didn't view the objective of the prompt as identifying what strengths might compliment their own strengths but instead seemed to base their reasoning of why they connected to people as being based on personal feelings, or how they felt they worked together in a team. For me, it started my understanding of other's strengths and how I might embrace these strengths.

Group dynamics played out during the building and sharing
Students commented upon the group's dynamics at play during the LSP experience. Reflecting on the first build, one student recalled that some groups became competitive with the directive of "build the tallest and sturdiest tower". Some students found this first prompt motivating, while others experienced apprehension. The realization that a simple directive prompt can become a friendly competition leaving varied emotional responses was fascinating to several students. One student stated that any directive, even when carefully worded, can take on a life of its own. The student spoke of the importance of observing the emotional energy in the group and the importance of facilitation skills that address the social and emotional issues. The opportunity and expectation that everyone participates in LSP resulted in the more reserved students having their voice amplified and understood. In typical classroom discussions, the more inhibited students often share only when directly called upon. In this LSP experience, all participants freely shared and listened to one another's stories.

Realization that LSP provided for deeper emotional meaning
Several students commented on the acceleration of emotional content that the metaphoric brick building offered. One student recalled that the social nature of the group work, and that of LSP specifically, allowed for awareness and sharing of personal growth and sensitivity to others. While students were instructed only to self-disclose information at a level at which they were comfortable, they were surprised how the hand-mind connection reduced psychic barriers. When students understood and practiced listening to others and then synthesizing the groups ideas that captured the deeper emotional meaning of the group, certain self-awareness and emotionally sensitive **c**ommunication skills were practiced and enhanced. One student aptly conveyed this when he stated:

> What I found interesting was how when I presented my group's story to the full class, I incorporated not just my own ideas, but those of my two group members..., specifically ideas which were not in my initial interpretation. It was amazing to begin to reflect on how I have certain strengths and then see how it played out in the group unbeknownst to anyone else, even to me at the time.

6. Discussion

LEGO® SERIOUS PLAY® is an experiential social constructed methodology. During the LSP experience, students are often surprised as the brick building and story sharing quickly move to a higher level of self-disclosure, which can become a source of creativity, reflection, and further development. The art and science of a socially constructivist teaching methodology often result in both emotional and expressive communication exchanges between students.

The processes by which we relate with others and practice shared leadership involve cognitive, social, and emotional components. Some students may be quite skilled in the social and emotional components, however some may not. Effective leaders have the ability and essential skills to deal with emotions of self and others and to understand that leadership involves such emotional intelligence. In a course focused on group dynamics, the emotional and social intelligence of leaders and learning styles, a premium is placed on understanding one's self and bringing that knowledge

into relationships with others. Within an adult learning model, the creation of a climate of safety in which one is free to speak without judgment, where full participation and mutual sharing is encouraged, LSP appears to be a valuable methodology.

This study suggests several implications for leadership educators and their students. First, LSP requires emotional and social competencies, specifically the ability to listen, share stories, and engage in collaborative group interaction. LSP enhances creative thinking, a prized competency in many business settings (Statler, Heracleous and Jacobs, 2011) and facilitates collaborative ideation (West, Hoff, and Carlsson, 2016). The very nature of the LSP process elicits creative modes of expression and the importance of diverse learning styles. Each student interprets the building prompt slightly different, highlighting that individual past experiences play an important role in our perceptions. The LSP application seems to provide a shared language between diverse groups of participants and participants are encouraged to make their insights explicit by focusing on the metaphors of their brick constructions. Likewise, there were indications that the experience made it possible for the students to reframe their initial understanding and insights into a shared perception with others, thereby creating new understandings, which translates into a key element of shared leadership.

The implications of this type of shared learning are broad, as leadership students will undoubtedly work and lead teams that will be comprised of disparate individuals with varying perspectives and strengths. The LSP method is based on the belief that everyone has something unique and valuable to contribute to discussions, decisions, and outcomes. Students gain understanding and clarity regarding the identity and dynamics of their team members paralleling the necessary competencies needed once they are practicing professionals in the workplace.

Furthermore, implications for the leadership faculty also exist. By partnering together, co-instructors can model collaboration, interprofessional communication, and behavior necessary in leadership development practice. Leadership educators expose students to the real-time successes and challenges of teamwork, group decision-making, and group sharing of affect-laden professional issues by providing valuable simulated learning opportunities such as LSP. This type of experiential exercise demands rigorous engagement on the part of students and faculty and has been found to be an invaluable andragogical tool in underscoring and achieving learning objectives in a dynamic 'real-life' environment (Peabody and Noyes, 2014).

This qualitative study illuminates that using an adaptation of LSP in a higher education setting has affirmative potential for a kinesthetic leadership development method in group dynamics and shared leadership development. Our findings demonstrate that such facilitated exercises enhance understanding, creative thinking and storytelling. In turn, the students grew more aware that the group's dynamics were being played out through the kinesthetic story of metaphoric three-dimensional building. The deeper emotional meaning of shared leadership and of significant group dynamics was discovered through the process of LSP, coupled with skilfully guiding students' sharing and listening appreciatively.

6.1. Limitations and future studies

The results of the current study are subject to several limitations. First, the study relies on a small sample size that limits generalizability. Although qualitative research methodology provides a deeper understanding of experiences through the lens of a few individuals and is not intended to be generalizable, it may not accurately represent the experience of all leadership students. Future studies could involve a larger sample size that included a broader range of race, ethnicity, and across different geographic locations.

Second, students were involved with the adapted LSP methodology for a limited time frame. Student involvement over several sessions and across weeks could have resulted in different themes. Future studies could explore increasing the time involved in LSP methodologies across one semester, with a larger class size. This could allow students to be divided into more groups, including a control group that offered an alternate experiential medium for expression. If a program followed a cohort model, facilitating LSP over several semesters may provide a deeper understanding of the methodological strength across many leadership skills and competencies, as well as demonstrate whether information was maintained over time.

Lastly, as one of the LSP facilitators was the instructor of the course, researcher bias potential existed. Reduced objectivity as a result of the second authors' dual roles of researcher and instructor need to be considered. Future researchers may consider using external auditors to collect post-involvement interview data and to analyze such data.
As such, despite the study limitations, our findings provide a foundation and direction for further research. LSP is itself a language (Kristiansen and Rasmussen, 2014) with potential goals for fostering student insight, self-awareness, and deeper learning. Future research of LSP in the context of higher education is beginning to spread (Dann, 2018: James and Brookfield, 2014; Gauntlett, 2007; Nerantzi, et al., 2015; Nolan, 2009). Leadership faculty who already value expressive, creative and symbolic learning, visual representation, metaphors, and storytelling as vehicles of communication are prime candidates to add this method to their andragogical repertoire.

7. Conclusion

The emerging themes of this qualitative study raise the awareness of creative instructional techniques into the andragogical practices of higher education leadership faculty for increased student engagement. This case study is encouraging to faculty who wish to add 'serious play facilitation' to their experiential andragogical toolkit. Participation in LSP facilitator certification training is highly advised, where every aspect of the methodological process is experienced and practiced. Information on LSP facilitator training can be found at www.seriousplay.com

The building of Lego models followed by metaphoric storytelling is an enhanced experience that increases students' appreciation for shared leadership development, group dynamics, experiential learning, and effective skills of communication. Leadership students need a wide range of metacognitive reflective skills, including appreciation of different thinking styles and listening. In a well-designed LSP

program, these students can be introduced to listening to understand rather than merely listening to respond and can experience incidents of shared leadership processes. In LSP, a leader must step back from hierarchical or positional power structures. Modifying the established LSP model to the unique context of collegiate coursework offers opportunities to help leadership students explore specific course content in a unique way. The social building together, both individually and then as a shared narrative, helps students to 'seriously play' together, offering a unique way to introduce the importance of developing the skills of shared leadership.

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