Constructing Creative Confidence with Lego® Serious Play®

Wendi Dykes McGehee

Department of Leadership and Organizational Psychology, Azusa Pacific University

Author Note

Wendi Dykes McGehee: https://orcid.org/0000-0002-5084-6173

This study was conducted by Wendi Dykes as a Dissertation at Fielding Graduate University, Santa Barbara, CA. Dissertation Chair: David Blake Willis, PhD.

Correspondence concerning this article should be addressed to Wendi Dykes McGehee, Department of Leadership and Organizational Psychology, 901 E. Alosta Ave., Azusa, CA 91702. Email: wmcgehee@apu.edu.

Copyright © Institute of Behavioral and Applied Management. All Rights Reserved.

Abstract

Creativity and innovative decision-making are among the most desired traits for leaders today. How does one develop these traits to meet the challenges facing the workplace? One answer is through building a mindset of creative confidence. This study explores the use of Lego® Serious Play® (LSP) to inspire the mindset of creative confidence in individuals. Findings affirm the need for the “other” in the creative process, expose increased levels of perspective-taking among participants, and suggests that divergent thinking can be taught. All positioning LSP as a tool for exercising the mental muscle known as creative confidence.

Keywords: serious play, creativity, creative confidence, Lego® Serious Play®

Copyright © Institute of Behavioral and Applied Management. All Rights Reserved.

Constructing Creative Confidence With LEGO® Serious Play®

To thrive in today's fast-paced workplace, individuals need to learn to think and act creatively by playing, collaborating, and challenging boundaries (Reznick, 2017). Developing a mindset that includes a blend of experimentation and structure is key to generating sustainable solutions to current challenges. Individuals can develop this mindset by establishing a personal permission to play within the workplace, by acknowledging that creative experiences require both rigor and whimsy, and through recognizing that engaging and meaningful is not the same as fun and easy (Carlson, 2017). This mindset is known as *creative confidence*.

Exploring the idea that individuals can be trained to build their creative confidence through collaborative opportunities to experiment, permission to fail, and a rediscovery of the childhood pastime of play, this study combines the notion of creative confidence with a methodology called Lego® Serious Play® (LSP), to qualitatively explore how engagement in LSP can inspire an attitude of creative confidence. Positioning creative confidence as the creative product, an interactionalist perspective (Brown, 1989; Harrington, 1990; Woodman et al., 1993) is used as the framework which formulates how a creative person, placed in a creative situation (collaboration and flow), using a creative process (LSP) can inspire the outcome.

Literature Review

The Creative Product: Creative Confidence

Creative confidence is an attitude or belief. Similar to the research philosophies of Basadur et al. (1982), Guilford (1950), and Sternberg (2006), it connects creative confidence to the view of creativity expressed through a cognitive ability, such as divergent thinking, suggesting it as something to be improved or developed. On an individual level, creative confidence can be further described as the ability to see oneself as innovative, comfortable with ambiguity, and possessing courage to try out new ideas (Kelley & Kelley, 2013). The term creative confidence also combines several definitions of creativity which positions creative

Copyright © Institute of Behavioral and Applied Management. All Rights Reserved.

confidence as a mindset to be chosen and as open to all. For this type of confidence to be developed, an understanding that individual creativity is produced when divergent and convergent thinking is linked (Basadur et al., 1982), accompanied by the realization that a certain level of technical knowledge or domain-relevant skills are necessary and must exist (Amabile, 1988).

Creative confidence can be connected to the establishment of trust in one's own creative skills (Rauth et al., 2010) while the use of the term "creative self-efficacy" can be considered as a synonym to describe the confidence one possesses in one's own ability to be creative (Beghetto, 2013).

At the core, creatively confident individuals believe in their potential to think differently, are comfortable with uncertainty, see various perspectives, have faith in their ability to create change in the world around them, and possess the courage to test it out in non-traditional ways.

The Creative Person

It can be argued that individual creativity cannot occur without group and organizational characteristics (including social, contextual, and environmental influences) interacting with one another. Although this research seeks to primarily explore an individual awareness of creative confidence, the overarching context for the use of the confidence is in support of solving complex organizational challenges. With this in mind, it is important to look at the creativity literature from both an individual and group perspective.

Individual Creativity

Multiple researchers contend that individuals are born creative and can easily learn to be more creative and innovative (Brown, 2008; Kelley & Kelley, 2013; Nussbaum, 2013). A common assertion states that it is foolish to think that creativity is only found in the fine arts, is rare, and only for those gifted in using the right brain. Creativity can be built, it is a muscle to be developed, and by rewriting the rules associated with creative thought even the left-brain, linear

Copyright © Institute of Behavioral and Applied Management. All Rights Reserved.

thinker can develop a divergent mindset (Brown, 2008; Core Junior, 2013; Kelley & Kelley, 2013; Nussbaum, 2013).

Creativity literature is continually evolving. Some literature exposes definitions that propose various views of the concept, suggesting a popular product produced or highly original idea formed for a person or act to be called creative. In this context, creativity is then described as the development of novel and useful items which leads to a belief of creativity as an achievement or ability. This assessment concludes that creativity is found within the bounds of great thinkers or genius status and views creativity as a manufactured product (Osborne, 2003).

Researchers have proposed correlations between creativity and various factors such as personality, intrinsic motivation (Amabile, 1988; Barron & Harrington, 1981; Woodman & Schoenfeldt, 1989), cognitive ability (Basadur et al., 1982; Carrol, 1985; Guilford, 1977, 1984) and knowledge or expertise in the domain-specific area (Amabile, 1988; Stein, 1989). Creativity research conducted through personality correlation, and closely associated with intrinsic motivation, can be described as an innate trait, like the mannerism of curiosity, or as a disposition or attitude (Amabile, 1988; Amabile et al., 1996; Barron & Harrington, 1981). A caution presented with this factor, specifically that of intrinsic motivation, refers to motivational tactics such as evaluation or reward schemes that may have an adverse effect on creativity generation and creative performance (Amabile, 1979; Woodman et al., 1993).

Cognitive ability as a predictor of creativity encompasses a propensity toward fluency of expression, ideation (also called divergent thinking), figural fluency, word fluency, flexibility, elaboration, and originality (Basadur et al., 1982; Carrol, 1985; Guilford, 1984). Basadur et al. (1982) add the element of convergent thinking, suggesting that ideation (divergent thinking) and convergent thinking must coexist for an individual to develop a creative product or process.

Further, through empirical research, Basadur et al., (1990) established that training individuals, within an organizational context, on creative thinking results in positive improvements in attitudes connected with divergent thinking. This assertion supports a learning

Copyright © Institute of Behavioral and Applied Management. All Rights Reserved.

process based on trial-and-error which includes opportunities for discovering plausible outcomes.

Individuals must have a certain level of knowledge or technical expertise in the domain-specific subject area for the creativity to occur (Amabile, 1988; Woodman et al., 1993). More recently Amabile and Platt (2016) have refined their componential model of creativity referencing a more dynamic view of the concept by suggesting that the meaningfulness of the work plays a part the creative process.

Creative people all have one thing in common: At some point, they made a choice to be creative (Sternberg, 2006). It is not promised that creative genius will emerge once a decision is made; however, according to Sternberg (2006), it will certainly not without a conscious intent.

Group Creativity

While group creativity is not a collection of group members individual creativity, group composition, characteristics, and process factors are suggested to play a role in group creativity (Amabile & Pratt, 2016; Woodman et al., 1993). In reference to process factors, Amabile and Platt (2016) suggest the necessity of three components: basic resources or raw materials, a set of processes or skills for combining them in new ways, and a driver.

Some antecedents reported to influence the generation of group creativity include leadership, cohesiveness, group composition, and group structure (King & Anderson, 1990). Research around these factors suggests that creative outcomes are more frequently generated when the leadership is collaborative and democratic, structure is less formal and mechanistic, and diversity (cognitive and functional) within group members is present (Woodman et al., 1993).

Knowledge plays a key role in group creativity production as it did in individual creativity outcomes. Individual and group creativity is inextricably linked (Amabile & Platt, 2016) as groups not only rely on their own knowledge (or technical expertise) but use that of group members to

Copyright © Institute of Behavioral and Applied Management. All Rights Reserved.

augment and stimulate their own ideas, ultimately contributing to the creative process (Woodman et al., 1993).

The Creative Situation

Following an overview of the creative person, a look into the contextual and social influences, also known as the *creative situation*, is necessary to further the discussion (Woodman et al., 1993). An interactionalist perspective supports the need for a creative situation to be existent for creative formation to take place suggesting that this factor can either help or hinder one's ability to be creative (Woodman et al., 1993). This study looks at the elements of collaboration and flow as social and contextual influences needed for the development of creative confidence.

Collaboration

Creative people collaborate with other humans (Kelley & Kelley, 2013) and creativity emerges within an ensemble between people (Sawyer, 2012). Recognizing that the whole is greater than the sum of its parts, the "wisdom of crowds" has been a proven theory (Sawyer, 2017; Suroweicki, 2004).

While a collective response may bring a more precise view of reality, creative collaboration, referred to as a form of friendship by Brown (2008), yields true play. In this assertion, friendship equals trust and when the fear of embarrassment, the conscious or subconscious judgmental opinion of others, or the performance standards placed upon ourselves or placed by others is extinguished, a freedom to take risks, to be foolish, and to be honest makes way for creativity. Greater innovation, defined as the product of creative collaboration, is produced from teams who possess trust, familiarity with one another, and a shared commitment to the same goal (Kelley & Kelley, 2013).

Creative thoughts from one individual begin to influence thoughts of another and innovation begins to unfold through constant communication and side-by-side interaction (Sawyer, 2017). Creative collaboration used toward an innovative process uses terms like co-

Copyright © Institute of Behavioral and Applied Management. All Rights Reserved.

design, co-creation, and co-configuration to describe ways in which collective understanding is formed (Schulz et al., 2015). The potential of these methods relies on teams where individuals with diverse backgrounds, disciplines, and views come together to exchange knowledge, perspectives, and experiences in order to develop something new (Schulz et al., 2015).

The concept of *playful collaborative exploration* is introduced by Johansson and Linde (2005) suggesting ways of engaging with information or materials that do not restrict an objective thought process, but rather stimulate a dialogue between the participants. This open-ended design process abandons a traditional designed problem-solving method and leans into the ambiguity and experimentation that occurs from a less structured method seeing it as a valuable contribution and purposeful to the outcome. In this process, the presence and acceptance of ambiguity is viewed as a respectful way of inviting differing perspectives, while the participants' job is to experiment with ideas and concepts, just as a chemist would experiment in a laboratory (Bateson, 1972; Johansson & Linde, 2005; Jorgenson & Steier, 2013).

Flow

In *Flow*, Csikszentmihalyi (2008) describes the optimal conditions for adult creativity to occur. The concept of flow is revealed when feelings of concentration, enjoyment, and fun are present while an individual is deeply immersed in what they are doing. Throughout his research nine elements emerge that help to define the ways flow is exhibited. The elements include (a) clear goals being present every step of the way, (b) immediate feedback to one's actions, (c) a balance between challenge and skill, (d) a merge of action and awareness, (e) distractions excluded from the conscious mind, (f) no worry of failure, (g) self-consciousness disappears, (h) sense of time becomes distorted, and (i) activity becomes autotelic, meaning that the activity becomes the choice of the participant and not a required action (Csikszentmihalyi, 2008; Csikszentmihalyi & Csikszentmihalyi, 1992; Wright, 2008).

Copyright © Institute of Behavioral and Applied Management. All Rights Reserved.

The term *optimal experience* is used when referring to the consistent length of time and mental energy an individual devotes to a task without direct focus on minutes, hours, or days passed (Csikszentmihalyi & Csikszentmihalyi, 1992). When in flow, absolute absorption into a task is often the result, and individuals describe themselves as feeling alert, strong, and performing to the best of their abilities with effortless authority over the challenge at hand. Csikszentmihalyi (2003) proposes that flow occurs when the mind and body are fully functioning in harmony with one another and providing a place for each individual around the table to find space for expression.

The Creative Process

Lego® Serious Play® (LSP) emerged in the early 21st century and has continued to catch interest among scholars and practitioners alike within the last decade. Through this facilitated process, which brings diverse backgrounds, knowledge, and perspectives into the conversation, the quintessential Lego brick transforms from a construction toy to a *language* used to foster systemic creativity (Kristiansen & Rasmussen, 2014). Lego bricks are used in the process as a representation, a metaphor, that enables participants to describe real-life organizational challenges in a safe, non-defensive, structured format which allows for freedom of expression, interpretation, and solution generation without the fear of failure or judgment.

A systems-thinking approach is used throughout the various application techniques allowing participants to unveil their own mental models, witness those of others, take a bird's-eye view of the problem, and make connections between one another and the greater landscape. Based on the theories of play, constructivism, and constructionism, LSP connects people and ideas, allowing the participants to explore plausible solutions, unleash creative capacities, learn through hands-on, mind-on interaction, and generate simple guiding principles that can help to solve the unknown organization dilemmas of the future.

Lego® Serious Play® follows the idea that organizations are dynamic, open systems. As such, there are multiple, complex subsystems within the larger organizational system that are

Copyright © Institute of Behavioral and Applied Management. All Rights Reserved.

consistently changing, affecting, and impacting one another. This occurs because of the "dependence on and continual interaction with the environment in which it resides" (Burke, 2013, p. 54). The ebb and flow with systems requires a new thought process and, according to Senge (2006), the idea of *systems thinking* serves as the "cornerstone" of a learning organization. It asks "what if?", it shifts mental models, it reflects in action, and it moves from conventional thought to creative solution.

LSP can be complementary to reductionist, linear, and analytical thought (Kim, 1999; Meadows, 2008) and, yet, is not better than the traditional thought. It simply encourages the creation of possibilities, innovations, and supports the reconstruction of our model (Lego or otherwise) without the use of directions that may have been placed to constrain or direct our thinking. This type of thinking leaves rational thought process behind, yet keeps responsibility in tact (Meadows, 1999). The Lego® Serious Play® methodology can be seen as a language that encourages organizations to go beyond what is seen, to unlock possibilities, and to break habitual thinking. The process of play makes this possible as the participants actively observe, probe, and play out scenarios within an organizational landscape thereby making sense of the system and its complexities (Kristiansen & Rasmussen, 2014).

Conclusion

Creative confidence is a mindset, an attitude, that sparks feelings of optimism and self-assuredness, comfortability with ambiguity, freedom to experiment, and openness to perspectives. It produces courage to test out new ideas and allows for the combination of divergent thinking and convergent thinking to work together in providing innovative solutions for organizational challenges.

A review of literature discusses the creative individual, a creative situation (collaboration and elements of flow), a creative process (Lego® Serious Play®), and the creative product of creative confidence. The study is exploratory in nature and assumes that creative confidence is malleable and does not seek to debate whether authentic creativity is an innate trait. The

Copyright © Institute of Behavioral and Applied Management. All Rights Reserved.

research seeks to understand if being place in a creative situation of collaboration and flow (Brown, 2008; Csikszentmihalyi, 2003; Kelley & Kelley, 2013), while engaging in Lego® Serious Play®, can inspire creative confidence.

Methodology

A qualitative study to explore the mindset and attitudes of individuals placed into a creative situation of collaboration and flow, using the creative process of Lego® Serious Play®, was conducted to discern if the creative product of creative confidence emerged. The data was collected through a workshop intervention followed by individual semi-structured interviews with the participants. A hybrid of both qualitative deductive and qualitative inductive methods of inquiry was used along with a template analysis to consider the proposed assumption.

Participant Information

The researcher studied six members from an intact organizational team. At the time the study was conducted, each individual was employed at the same organization and was a contributing member of the organizational unit. The length of service to the organization varied between participants. The participants were over 18 years of age and signed a research consent form prior to beginning the interview process and engagement in the LSP workshop.

Data Collection

The researcher is a certified Lego® Serious Play® (LSP) facilitator and designed and guided the LSP workshop intervention from beginning to end. The workshop was custom designed around current complex challenges facing the organization being studied. The design of the workshop followed the LSP standard process.

A face-to-face, semi-structured, post-workshop, individual interview was conducted as data collection in order to capture the perceptions of the participants attitudes about the current team reality (team dynamics and past experiences with problem-solving), the LSP problem-solving processes (creative process), experiences with flow and collaboration (creative situation), and insights from the workshop of themselves and their creativity (creative product,

Copyright © Institute of Behavioral and Applied Management. All Rights Reserved.

creative person). This 40- to 45-minute individual interview was held within 3 weeks' post workshop and was recorded using the iPhone audio recording function.

The interview protocol consisted of two to four prompt questions associated with the current team reality, followed by the process, situation, and product experienced by the participant during the workshop. During the interview, participants were encouraged to share stories and provide specific examples from the workshop to help illustrate their response. The interview prompt questions did not include explicit reference to creative confidence, flow, or collaboration.

Current Reality

Responses around the current team dynamics and past problem-solving experiences were generated through prompts such as:

(a) Tell me a little about your team?

a. How do you generally solve complex challenges?

(b) Tell me about the complex challenge in your workplace that you were attempting to solve during the LSP workshop.

Creative Process

This set of prompts sought to explore if using the LSP process, a constructionist way of solving challenges, produced different results from other problem-solving methods the team has used in the past. In addition, the researcher desired to explore if the constructionist process, in this case LSP, contributed to the end goal of developing creative confidence in the individual participants.

Participant's attitudes and experience in the Lego® Serious Play® workshop were captured using the following interview prompts such as:

(a) Describe the problem-solving process that was used in the workshop.

(b) How did the Lego elements contribute to the solution?

(c) Without the Lego, describe how your contribution to the problem-

Copyright © Institute of Behavioral and Applied Management. All Rights Reserved.

solving discussion would have been different.

Creative Situation

The creative situation is broken into two parts: flow and collaboration. While collaboration was an expectation of the LSP process and arguably a forced element, the arrival of flow was promising but unplanned. To explore if any and/or which elements appeared, interview prompts like the following were asked to gather information from the participants:

(a) How is this process different than how you've solved team challenges in the past?

(b) How engaged were you in this process? What about your team members?

(c) Was the process of solving this challenge fun?

(d) What did you find yourself thinking about during the workshop? How often did you look at your watch or phone to check the time?

Creative Confidence

The essence of this study was to explore if a creative product, namely creative confidence, was incited within the minds of the individuals being studied. The interview prompts designed to illuminate this attitude or belief included:

(a) What happened throughout this process to help you learn?

(b) What did you learn about yourself? Others?

(c) What happened throughout this experience that made this a particularly creative endeavor?

Data Analysis

The hybrid method of this study allowed the researcher to use a deductive method of inquiry through thematic analysis providing permission to the researcher to search for key themes from the interviews that would help describe and provide understanding to the phenomenon being studied (Daly et al., 1997). The inductive approach to this study allowed the researcher freedom to explore data-driven themes not previously considered in this research

Copyright © Institute of Behavioral and Applied Management. All Rights Reserved.

(Boyatzis, 1998; Rice & Ezzy, 1999). Through a careful reading and rereading of the transcript data, identification of new themes and patterns within the data were noted and recorded.

Template Analysis: Design and Coding

A template analysis (Crabtree & Miller, 1999; King, 1998, 2007) was used to code and analyze the data. This deductive method was used to examine the textual data, in this case transcript data from semi-structured interviews based on the key themes and theories proposed to be relevant. The researcher was reading for language that supported the presence of key themes relating to elements of creative confidence. The comments, stories, and statements most connected to inspiring a new mindset or attitude of creative confidence within the participants was recorded and coded within the template analysis. The coding began with a general theme based on the key themes within the literature review and progressed into subthemes with a narrower focus. Once the careful coding had begun, the template analysis allowed space for the emergent themes to be recorded. This deductive method allowed for flexibility when crafting the template and granted space for inductive inquiry (King, 2004). When unplanned themes emerged from the inductive approach to the data, they were added to the template and all textual data were coded according to the revised template (Waring & Wainwright, 2008). The template and coded data served to illuminate the researcher's interpretation and contributed to the write-up of the research results (King, 1998, 2007).

Results

Following the field study which included a Lego® Serious Play® workshop and individual interviews of participants, the raw data were organized and analyzed. Sixty-nine pages of data responses emerged from the post-workshop interviews and were reported on a template analysis table. Data responses were organized under four main themes: The Current Team Reality, The Creative Process, The Creative Situation, and The Creative Product. Subthemes were generated under each main theme based on the participant response data.

Copyright © Institute of Behavioral and Applied Management. All Rights Reserved.

The Current Team Reality

Interview prompts in this first section of the interview protocol were designed to gather data and provide context that led to an understanding of the current team dynamics held by the intact organizational unit participating in the study. While the specific interview prompts provided good data, a considerable amount of the data arose from interview prompts designed to evoke responses around the creative process and the creative situation. During the discussion around the creative process used in the workshop, participants reflected on and compared the Lego® Serious Play® process with past experiences providing insight into the current team patterns of behavior. The subthemes presented in this category are all data-driven and not based on existing theoretical constructs.

The responses for the current team reality were grouped into seven subthemes. The subthemes included *New Team, Experience vs. Energy, Communication Style, Clear Leader Role, Problem Solving, Silos,* and *Openness to Change.* These subthemes, particularly Clear Leader Role, Problem Solving, and Silos, provided insight into the top down, linear decision-making process that currently exists within the organizational unit studied.

Problem Solving

Responses indicate that the primary problem-solving strategy for this team involves a meeting, a discussion, and a decision. Phrases and words from the data responses describing meetings such as, “we just talk about it,” “methodical, filtered, slow, and unproductive” were used to endorse this finding.

Clear Leader Role

Following understanding of the current team interpersonal culture, the next subtheme gives awareness to the process of how decisions have been or are currently being made in the organizational unit. Data responses indicate that the current organizational structure includes one clear, positional leader who makes final decisions. There was no variance in the responses of the participants to refute this arrangement. The leader acknowledges, “I’m the boss” and

Copyright © Institute of Behavioral and Applied Management. All Rights Reserved.

participant responses followed suit with “he’s the spearhead” and “he’s the leader...it’s his job.” This hierarchical structure sheds light on the current problem-solving strategy being used in the organization.

The Creative Process

The creative process for this research study was the use of Lego® Serious Play® (LSP) to solve an organizational challenge. The interview prompts led to the grouping of responses in the following subthemes: *Deeper Learning through Visual Artifact, Deeper Learning through Mental Challenge, Perspective Taking, A More Productive Experience, An Evened Playing Field, Interpersonal Safety, An Emergence of Empathy,* and *Facilitator Influence.*

Perspective Taking

In addition to the self-reported stretching of the mind, participants spoke about the acknowledgement of others’ perspectives and begin to reference a collaborative view. Having cited the current mode of operation as silo driven in the organization, responses from the participants expressed awareness of the other and take the focus off of the silo perspective.

An Emergence of Empathy

A surprising finding was that of empathy, not only empathy toward the other, but an understanding of where one’s own traits may get in the way of allowing others the opportunity to speak or present a contrasting viewpoint. Empathy can be connected with perspective-taking, and is arguably a counterpart to psychological safety.

Interpersonal Safety

Powerful and compelling describes a particular series of words used by the participants in recounting their experience with the LSP process. Words and phrases include “free/freedom/freeing,” “able to contribute and not feel steamrolled,” “safe environment,” “non-defensive,” “non-judgement,” “able to address elephants in room,” “otherwise handcuffed or paralyzing attempts occur.” These strong and important words and phrases were grouped into a subtheme labeled as Safety/Freedom. With this knowledge, it can be proposed that LSP not

Copyright © Institute of Behavioral and Applied Management. All Rights Reserved.

only supports the constructionist theory of deeper learning occurring when building something external of oneself, but it also suggests that psychological safety is an important part of the process contributing to notion that while the cognitive development is occurring, psychological development is being built in tandem.

The Creative Situation

The creative situation is broken into two parts: flow and collaboration. While collaboration was an expectation of the LSP process and arguably a forced element, the arrival of flow was promising but unplanned.

Many of the responses leading the researcher to explore the impact of flow and collaboration within the LSP process and its further effect on generating creative confidence came from prompts outside of the specific questions presented to examine these particular phenomena. Several responses emerged as part of general dialogue between the participant and the researcher through their explanation of the LSP process and during the unpacking of key learnings that took place.

Four of the nine key elements of flow emerged from the dialogue between the researcher and the participants and subthemes labeled accordingly: *Self-consciousness Disappears; Enjoyment*, *Sense of Time Distorted, Balance between Skills and Engagement,* and *Distractions Removed from Consciousness.* An emergent theme developed during this theme and was given the subtheme of *Presence of Technical Expertise.*

Presence of Technical Expertise

The newest member of the team struggled to find the same level of flow as his fellow teammates, he cited “lack of experience” and “not been 100% exposed” as potential setbacks. His experiences led to a subtheme acknowledging that technical experience must exist at some level in order for the element of flow centered around the balance of skill and challenge to occur. The researcher had asked interview prompts to uncover length of tenure within the current intact organizational team but did not seek to ask about prior experience in the field or industry.

Copyright © Institute of Behavioral and Applied Management. All Rights Reserved.

The Creative Product

The essence of this study was to explore if a creative product, namely creative confidence, was incited within the minds of the individuals being studied.

The subthemes created are linked to an attitude or mindset change: *Think Differently, A Level of Comfortability with Uncertainty, See Self/Others as Creative, Courage to Try Things; Experiment, See Other Perspectives,* and *Wanting More.*

Think Differently

Engagement with Lego Serious Play produced a clear shift in mindset in the individuals participating in the study. Every member of the team acknowledged that the process helped them to think differently. Phrases like, “breaking out of a mindset,” and “pushed us to think in a way we don’t all think in” support this finding.

A Level of Comfortability with Uncertainty

Particularly interesting was a new comfortability with a level of uncertainty that was expressed by the team leader and the other members who have been at the organization for a significant amount of time.

See Self/Others as Creative

Another important finding was the learning that occurred for each participant in the area of creativity. Every participant was able to verbally declare themselves and or the other team members as creative. Many recognized that creativity can come in different forms, that it does not look the same for everyone, yet each person, including themselves, has the capacity to think creatively and to continue to develop it.

Courage to Try Things; Experiment

A comfortability to experiment and try new things was expressed through the data. Participants expressed the desire to continue changing, adjusting, and playing with the ideas that were formulated during the workshop. Also stated was the comfortability to say things that they may have not previously felt at ease to share whether that be sharing a new idea or asking

Copyright © Institute of Behavioral and Applied Management. All Rights Reserved.

for clarification. Either way, the freedom to experiment at some level was being explored and considered.

See Other Perspectives

The data told stories of how engagement with the Lego bricks to build an idea or concept externally of oneself led to deeper learning and perspective taking in the individual participants. To support the development of creative confidence that occurred at both the individual and group level, words like, “enlightening,” “helpful,” and “mutual respect” were used to describe the way they now view the other members of their team.

Discussion

Creativity is a desired trait among leaders in the workplace today (Carr, 2010; IBM, 2010) and the type of creativity needed is not that of fine art skill, rather the ability to think differently, to live with a level of ambiguity, to stay agile while knowing how to experiment when searching for plausible solutions. The urgency is present; organizations cannot keep solving problems in traditional ways and expect to get new solutions. A new way of thinking is needed in order to solve complex challenges in innovative and creative ways and this new mindset, called *creative confidence*, can be developed among individuals in the workplace through engagement with Lego® Serious Play®.

This research was exploratory in nature and sought to discover if engagement with LSP could inspire creative confidence. Using the interactionalist model (Brown, 1989; Harrington, 1990; Woodman et al., 1993) this study placed an individual in a creative situation of flow and collaboration, using a creative process of Lego® Serious Play®, to discover if the creative product of creative confidence emerged. The results of this study provide initial data positioning Lego® Serious Play® as a solution for building creative confidence in individuals situating Lego® Serious Play® among other innovative tools like design thinking (Kelley & Kelley, 2013) as support for the creative decision-making process that happens within an organizational context.

Copyright © Institute of Behavioral and Applied Management. All Rights Reserved.

Creative Confidence is Built

The collection of data responses provides evidence that creative confidence was present in each individual following their experience working through a complex challenge using Lego® Serious Play®. Creative confidence is defined throughout this paper as a personal mindset or attitude that one has which fosters the ability to use both divergent and convergent thought, share comfortability with ambiguity, act upon freedom to experiment, and express openness to perspectives in order to propose fresh solutions to complex problems.

Referring to the use of both right and left-brain traits, participants repeatedly described how they “think differently” after engaging in the workshop, learned to see and appreciate other perspectives, developed the willingness to experiment and try something new, saw themselves and others as creative, and acknowledged that their level of comfortability with uncertainty was altered. The language used by participants to describe the experience signals a change, at some level, to their previous thought pattern associated with their work team and the way in which organizational challenges have been presented and solved.

The assertion that engagement with LSP aids in inspiring creative confidence enhances the findings of Basadur et al., (1990) who established that training individuals, in an organizational context, on creative thinking results in positive improvements in attitudes connected to divergent thinking. The LSP workshop, although designed as an organizational development intervention, can also be considered a training event at some level considering the kinesthetic nature of the experience and the LSP process steps that require individual and collaborative learning around the organizational problem being addressed.

Participants were able to articulate that creativity looks different for different people and each acknowledged the creativity within themselves as within the others in their team. This research set out to uncover if the mindset of creative confidence could be developed at an individual level and while the data supported the individual expression of this assertion, it must be noted that the development of creative confidence is not an individualistic pursuit. In

Copyright © Institute of Behavioral and Applied Management. All Rights Reserved.

accordance with the literature on creativity (Kelley & Kelley, 2013; Sawyer, 2017; Woodman et al., 1993), creative confidence was expressed by the individuals, but developed through a collaborative, group process. Therefore, as creativity is produced in collaboration so is creative confidence.

Emerging Themes

While the study was designed using collaboration and flow as the creative situation, two emergent themes occurred in this category that arguably contributed to development of a creative confidence mindset. Although characteristics of creative confidence was present in all participants following engagement in the LSP process, the level of flow experienced during the process differed between a new team member and those with longer tenure in the organization. The analysis suggests that lack of technical expertise hinders engagement and can potentially reduce confidence in the individual. This finding is consistent with an element of flow that asserts the level of skill must match the level of challenge (Csikszentmihalyi, 2008) while also affirming the work of Amabile (1988) and Woodman et al., (1993) that individuals must have a certain level of knowledge or technical expertise in the domain-specific subject area for the creativity to occur.

Additionally, the element of psychological safety (Edmondson, 1999) is added to the equation. Psychological safety is defined as a team's shared belief that the current environment is safe for taking interpersonal risk (Edmondson, 1999). This construct emerged from the data responses demonstrated by participants describing the feelings of freedom, safety, and nonjudgement that the LSP process allowed. While collaboration and flow are described as antecedents toward the development of creative confidence, this surprising finding can be described as a positive consequence of the process and contributes significantly to the overall goal of inspiring creative confidence in individuals. It can be argued that for the particular team(s) used in this study, the presence of psychological safety was a key contributor toward the development of creative confidence, especially for the newer team members. The freedom

Copyright © Institute of Behavioral and Applied Management. All Rights Reserved.

occurred as participants were able to translate their thoughts and feelings onto a Lego model as opposed to an individual or situation. In tandem, this aspect allowed the leader freedom and space to listen and digest the content.

Implications

The research from this study was exploratory in nature and intended to be a starting point for conversations around the development of creative confidence. Engagement with Lego® Serious Play® can inspire individuals to learn think differently about complex problem solving. Those who chose to be innovative, to build mastery and create a sense of membership around playfulness will reap the personal and organizational benefits finding that the results will speak for themselves. Ultimately, creative confidence is about learning to become something (a mindset) as opposed to learning about something (knowledge).

Through this study, it is important to consider the implications these findings can have in the scholar-practitioner realm. The organizational development practitioner now has empirical support for using the LSP tool. Tested outcomes are available to share with potential organizational leaders looking to develop a creative mindset in their employees. Consultants within the OD sphere can confidently position LSP as not only a strategy tool for solving complex workplace challenges, but a personal development tool that inspires and produces a divergent mindset among participants allowing them to see problems from a new perspective, feel comfortable with a certain level of ambiguity, and experiment with ideas prior to formal implementation.

With Lego Serious Play gaining credibility in the academic literature, educators within higher education, specifically the organizational science sphere, can begin to consider the effects of using the LSP method to teach concepts like systems thinking and organizational change theories. Practical methods for teaching complex ideas are often sought out by academic faculty. While not yet empirically tested among higher education students in the

Copyright © Institute of Behavioral and Applied Management. All Rights Reserved.

organizational science discipline, this notion begins the conversation about furthering the study of LSP.

Limitations

Although it is suggested that the intact organizational team used in this study is much like any organizational unit, the participating team was from a faith-based, non-profit organization which may have impacted the findings due to the nature of that work and what type of person is attracted to that field. A perceived limitation may suggest that multiple intact teams, from a variety of organizational environments be studied and compared for stronger results. Because of the nature of a qualitative study, a pre and posttest were not administered, and a control group was not utilized. Therefore, the research has limited generalizability but nonetheless provides a foundation for future research.

Research design limitations should be considered. The study was exploratory in nature and conducted using a small sample size from a non-profit, faith-based organization. Although two pilot studies were conducted prior to the field study, one from a for-profit organization and the other a non-profit educational institution, the personal positivity bias of the researcher could have been present and influenced responses. To increase reliability in the findings, a follow-up interview 6 months post intervention could be useful in determining whether the development of creative confidence was a lasting phenomenon or a short-term experience.

Further, the roles of researcher and workshop intervention facilitator were performed by the same individual who served as the lone interventionalist for this study. Considering that an emergent theme of *Facilitator Influence* was presented in the data as a critical element to the generation of creative confidence, it would be valuable to test the study again using various certified, LSP facilitators. Results may be skewed considering that the dual roles and the desire of the researcher to increase creative confidence may positively bias the responses of participants.

Copyright © Institute of Behavioral and Applied Management. All Rights Reserved.

Conclusion

This study advocates creative confidence as a muscle to be developed, an attitude to be cultivated, and Lego® Serious Play® as a tool that can help to inspire such an action (Basadur et al, 1982; Guilford, 1950; Kelley & Kelley, 2013; Sternberg, 2006). After engagement in the process of Lego® Serious Play®, participants reported responses indicating the development of a new thought process and an overall adjustment in their thinking that can be used toward creative decision-making. In essence, LSP can offer the linear thinker enough structure, without restriction, to provide space both physically and mentally for creative exploration to occur. In contrast, it provides independence, within a boundary, for the natural born creative thinker to explore plausible solutions to complex challenges.

Copyright © Institute of Behavioral and Applied Management. All Rights Reserved.

References

Amabile, T. M. (1979). Effects of external evaluation on artistic creativity. *Journal of Personality and Social Psychology*, 37(2), 221.

Amabile, T. M. (1988). A model of creativity and innovation in organizations. *Research in Organizational Behavior*, *10(1),* 123-167.

Amabile, T. M., Conti, R., Coon, H., Lazenby, J., & Herron, M. (1996). Assessing the work environment for creativity. *The Academy of Management Journal, 39*(5), 1154-1184.

Amabile, T. M., & Pratt, M. G. (2016). The dynamic componential model of creativity and innovation in organizations: Making progress, making meaning. *Research in Organizational Behavior*, *36*, 157-183.

Barron, F., & Harrington, D. M. (1981). Creativity, intelligence, and personality. *Annual Review of Psychology, 32*, 439-476.

Basadur, M., Graen, G. B., & Green, S. G. (1982). Training in creative problem solving: Effects on ideation and problem finding and solving in an industrial research organization. *Organizational Behavior and Human Performance, 30*(1), 41-70.

Basadur, M., Wakabayashi, M., & Graen, G. B. (1990). Individual problem-solving styles and attitudes toward divergent thinking before and after training. *Creativity Research Journal, 3*(1), 22-32.

Bateson, G. (1972). *A theory of play and fantasy: Steps to an ecology of mind.* University of Chicago Press.

Beghetto, R. (2013). Nurturing creativity in the micro-moments of the classroom. In K. H. Kim, J. C. Kaufman, J. Baer, & B. Sriraman (Eds.), *Creatively gifted students are not like other gifted students: Research, theory, and practice.* The Netherlands: Sense, (pp. 3-16).

Boyatzis, R. E. (1998). *Transforming qualitative information: Thematic analysis and code development*. Sage Publications.

Copyright © Institute of Behavioral and Applied Management. All Rights Reserved.

Brown, R. T. (1989). Creativity: What are we to measure? In J.A. Glover, R.R. Ronning & C.R .Reynolds (Eds.), *Handbook of Creativity* (pp. 3-32). Springer.

Brown, S. (2008, May). *Play is more than just fun* [Video file]. https://www.ted.com/talks/stuart_brown_says_play_is_more_than_fun_it_s_vital

Brown, T. (2008, May). *Tales of creativity and play [Video file].* https://www. ted. com/talks/tim_brown_on_creativity_and_play

Burke, W. W. (2013). *Organization change: Theory and practice*. Sage Publications.

Carlson, S. (2017, October 29). Play inspires learning: But what is play, exactly? *The Chronicle of Higher Education.* http://www.chronicle.com/article/Play-Inspires-Learning-But/241572?cid=at&utm_source=at&utm_medium=en&elqTrackId=d71751fda2ff4e0786fc84491b1870b9&elq=3a84c08c9b7441858ea6e53e23479748&elqaid=16506&elqat=1&elqCampaignId=7146

Carr, A. (2010, May). The most important leadership quality for CEOs? Creativity. *Fast Company.* https://www.fastcompany.com/1648943/most-important-leadership-quality-ceos-creativity

Carrol, J. B. (1985, May). Domains of cognitive ability. In *meeting of the American Association for the Advancement of Science, Los Angeles* (Vol. 84).

Core Junior. (2013, June 18). *Bruce Nussbaum on creative intelligence, from connecting the dots to indie capitalism.* http://www.core77.com/posts/25075/Bruce-Nussbaum-on-Creative-Intelligence-from-Connecting-the-Dots-to-Indie-Capitalism

Crabtree, B. F., & Miller, W. L. (1999). Using codes and code manuals: A template organizing style of interpretation. *Doing Qualitative Research*, *2*, 163-177.

Csikszentmihalyi, M. (2003). *Good business: Leadership, flow, and the making of meaning.* Penguin Group.

Csikszentmihalyi, M. (2008). *Flow: The psychology of optimal experience.* Harper Collins Publishers.

Copyright © Institute of Behavioral and Applied Management. All Rights Reserved.

Csikszentmihalyi, M., & Csikszentmihalyi, I. (1975). *Beyond boredom and anxiety*, Vol. 721. Jossey-Bass.

Csikszentmihalyi, M, & Csikszentmihalyi, I.S. (1992). *Optimal experience: Psychological studies of flow in consciousness.* Cambridge University Press.

Daly, J., Kellehear, A., Gliksman, M. (1997). *The public health researcher: A methodological approach* (pp. 89-106). Oxford University Press.

Edmondson, A. (1999). Psychological safety and learning behavior in work team. *Administrative Science Quarterly, 44*(2), 350-383.

Guilford, J. P. (1950). Creativity. *American Psychologist, 5*(9).

Guilford, J. P. (1977). *Way Beyond the IQ: Guide to Improving Intelligence and Creativity*. Creative Education Foundation.

Guilford, J. P. (1984). Varieties of divergent production. *The Journal of Creative Behavior*, *18*(1), 1-10.

Harrington, D. M. (1990). The ecology of human creativity: A psychological perspective. In M. A. Runco & R. S. Albert (Eds.). Sage focus editions, Vol. 115. *Theories of creativity* (pp.143-169). Sage Publications.

IBM. (2010). *IBM CEO Study*. https://www-/935.ibm.com/services/us/ceo/ceostudy2010/

James, A. (2013). Lego serious play: A three-dimensional approach to learning development. *Journal of Learning Development in Higher Education, 6.*

Johansson, M., & Linde, P. (2005). Playful collaborative exploration: New research practice in participatory design. *Journal of Research Practice, 1(1).* http://jrp.icaap.org/index.php/jrp/article/view/5/9

Jorgenson, J., & Steier, F. (2013). Frames, framing, and designed conversational processes: Lessons from the World Cafe. *The Journal of Applied Behavioral Science*, *49*(3), 388-405.

Copyright © Institute of Behavioral and Applied Management. All Rights Reserved.

Kelley, T., & Kelley, D. (2013). *Creative confidence: Unleashing the creative potential within us all.* Crown Business.

Kim, D. (1999). *Introduction to systems thinking.* Pegasus Communications. King, N. (1998). Template analysis. In G. Symon & C. Cassell (Eds.), *Qualitative methods and analysis in organizational research* (pp. 118-134). Sage.

King, N. (2004). Using templates in the thematic analysis of text. In C. Cassell and G. Symon (Eds.), *Essential guide to qualitative methods in organizational research* (pp. 256-70). Sage.

King,N. (2007).*TemplateAnalysis*. http://www.hud.ac.uk/hhs/research/template_analysis/

King, N., & Anderson, N. (1990). Innovation in working groups. In M.A. West and J. L. Farr (Eds.), *Innovation and Creativity at Work* (pp. 81-100). Wiley.

Kristiansen, P., & Rasmussen, R. (2014). *Building a better business using the LEGO® Serious Play® method*. Wiley & Sons.

Meadows, D. (1999). *Leverage points: Places to intervene in a system*. The Sustainability Institute.

Meadows, D. (2008). *Thinking in systems: A primer*. Chelsea Green.

Nussbaum, B. (2013). *Creative intelligence: Harnessing the power to create, connect, and inspire.* Harper Collins.

Osborne, T. (2003) Against 'creativity': A philistine rant. *Economy and Society, 32(4),* 507-525.

Rauth, I. Koppen, E., Jobst, B. & Meinel, C. (2010). Design thinking: An educational model towards creative confidence. Proceedings of the 1st International Conference on Design Creativity, Kobe, Japan.

Reznick, M. (2017). *Lifelong kindergarten: Cultivating creativity through projects, passion, peers, and play.* The MIT Press.

Rice, P. L., & Ezzy, D. (1999). *Qualitative research methods: A health focus*. Oxford University Press.

Copyright © Institute of Behavioral and Applied Management. All Rights Reserved.

Sawyer, K. (2017). *Group genius: The creative power of collaboration.* Basic Books.

Sawyer, R. K. (2012). *Explaining creativity: The science of human innovation*. Oxford University Press.

Schulz, K. P., Geithner, S., Woelfel, C., & Krzywinski, J. (2015). Toolkit-based modelling and serious play as means to foster creativity in innovation processes. *Creativity and Innovation Management*, *24*(2), 323-340.

Senge, P. (2006). *The fifth discipline: The art and practice of the learning organization*. Currency.

Stein, B. S. (1989). Memory and creativity. In *Handbook of Creativity* (pp. 163-176). Springer.

Sternberg, R. J. (2006). The nature of creativity. *Creativity Research Journal, 18(1),* 87-98.

Surowiecki, J. (2004). The wisdom of crowds: Why the many are smarter than the few and how collective wisdom shapes business. *Economies, Societies and Nations*, *296*.

Waring, T., & Wainwright, D. (2008). Issues and challenges in the use of template analysis: Two comparative case studies from the field. *Electronic Journal of Business Research Methods*, *6*(1), 85-94.

Woodman, R. W., Sawyer, J. E., & Griffin, R. W. (1993). Toward a theory of organizational creativity. *Academy of Management Review*, *18(2)*, 293-321.

Woodman, R. W., & Schoenfeldt, L. F. (1990). An interactionist model of creative behavior. *The Journal of Creative Behavior*, *24*(4), 279-290.

Wright, S. (2008, September 5). *In the zone: Enjoyment, creativity, and the nine elements of flow.* http://www.new.meaningandhappiness.com/zone-enjoyment-creativity-elements-flow/26/

Copyright © Institute of Behavioral and Applied Management. All Rights Reserved.