The Use of LEGO® SERIOUS PLAY™ with TEAMS

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Globally, there has been a documented movement to create team-based organizations as we move into the twenty-first century. Teams have moved toward becoming self-organized, and are increasingly dependent on technology, and their demographic makeup is more diverse, given both globalization and the freedom technology provides (Branson, Clausen, & Sung, 2008). Multinational companies have embraced the concept of teamwork in order to improve production and quality, and to increase the return on their shareholders' investments (Gundlach, Zivnuska, & Stoner, 2006). However, research conducted by Franco in 2008 found that organizations often create unnecessary barriers to success as teams attempt to collaborate and that organizations need to find new ways to help teams' problem solve (Franco, 2008). Research conducted in 1997 discovered that, of the companies surveyed having over a hundred employees, eighty-two percent reported they use teams. Ninety-one percent of Fortune 500 companies use employee participation groups (Cohen & Bailey, 1997).

Given this trend, academics are calling for more relevant research to help practitioners and organizations understand how they can help real teams today. Most team theories have been based on research conducted years ago, when teams worked face to face (Leonard & Freedman, 2000). This trend indicates that organizations will need to ensure they are providing adequate opportunities for teams to develop shared mental models, communicate effectively and remain motivated, while working together to solve problems, create strategy, and achieve collective goals.

Research conducted in 1995 found that organizations continue to seek out and request interactive workshops. A FaxForum survey in Training and Development found that 100 % of respondents used some type of creative, interactive tools. When these types of tools are well developed they are successful as they are tightly linked to objectives, are tailored to the subject matter, and they deliver on the client's stated outcomes, while meeting the needs of the audience. However, despite this trend, limited research has been conducted on the value of interactive, hands-on workshop tools to understand their effectiveness (Salopek, 1999). Researchers have also discovered a direct connection between creativity and innovation that further supports the use of interactive hands-on tools to help people develop skills needed for the 21st century (Kaufman & Beghetto, 2009).

Given the speed at which organizations are experiencing change, leaders are called to find way to uncover each team member's hidden talents. The use of creative hands-on tools has

been found to aid this process as not all team members use the same method to get to innovation (Isaksen, 2007).

According to Landy and Conte (2007), there are many new fads that come onto the market that are not researched and are undocumented. Organizations looking for a quick fix may use these types of approaches and find that they are not getting the desired results. Many undocumented and unproven approaches have been blamed for a high failure rate in change initiatives (Landy & Conte, 2007).
In 1986 I began working as an Art and Play Therapist in a youth custody facility. In 1996 I gained a position in management, where I worked as a director in a children's treatment center until 2003. During this time I witnessed success marked by behavior and attitude changes, facilitated through the use of creative tools for therapeutic intervention. I was working with young incarcerated males and hard-to-serve children.

LEGO® Serious Play™ is an interactive, problem-solving tool developed specifically to help solve business problems through creative problem solving and communication. This facilitated process allows participants to build with bricks and use LEGO® models as business metaphors; this helps organizations gain a greater understanding of their situations through an in-depth analysis process. At the final stages of building, facilitators lead the groups through a process of scenario testing. Business teams then play out situations using metaphorical business landscapes. This process creates a safe opportunity for each participant to engage in thinking, testing and planning that is highly visual and interactive with limited risks. This process takes intangible concepts and brings them into the present, where concrete ideas can be tested and solutions can be changed as needed. Once teams develop a clear and accurate mental model, they can develop goals and create action steps that are immediately ready to be implemented. Since their new strategies have been created in a three-dimensional model, they can also make adjustments as they need in real time (Burgi & Roos, 2003).

Although this approach appears to work well, along with a number of other interactive team development tools, very little scientific research exists. In the case of LEGO® Serious Play, it could be due to LEGO's® previous closed licensing agreements with practitioners that protected the intellectual property of the application. This is now changing into the new open source model in which my global strategic affiliates and I will be developing. For the purpose of this training manual we have selected the following theories as they pertain to working with diverse teams: team role theory, shared mental models, Hofstede's cultural dimensions theory, goal-setting theory and transactional leadership theory. These theories provide a solid foundation and understanding as I work to develop an expertise in team development and in the creation of high-functioning teams.

Team Role Theory:

In 1981 Belbin developed Team Role Theory, which has been of interest to both researchers and managers as they try to understand what makes a high-functioning team. Belbin proposed that each team member contributes to the team objectives by performing a team role. This role differs

from his or her tasks and formal title, such as secretary or payroll clerk; these roles refer to process roles (Senior, 1997). In order for the team to achieve its goals there must be a balance among the roles members play. In order for the team to be successful, members of the team must be able to adjust their strengths correctly to balance the needs of the team. Further, personality and abilities allow members to play some roles and limit their abilities to play others. Lastly, he proposed that teams can only ensure effective teamwork when they are able to make the best use of their technical resources (Prichard & Stanton, 1999). Belbin identified nine roles needed on teams but also recognized that some members could play more than one role. The roles were identified as: Plant, Resource Investigator, Coordinator, Shaper, Monitor Evaluator, Teamworker, Implementer, Completer and Specialist (Landy & Conte, 2007).

This theory is helpful within the process of facilitation, development of directives, and the formulation of questions used during team-based activities and processes. During these types of activities people often default back to the way they behave at the office. Understanding team role theory is extremely useful. As an example, within the LEGO® Serious Play™ application there is an interesting workshop that specifically analyzes team life and identity. The storytelling and feedback tool built into the process helps people understand not only their roles but also the roles performed by others.

Shared Mental Models:

For teams to be effective they need to possess a shared mental model. Mental models explain an overlapping understanding that teams have regarding their tasks and their objectives, the work structure, the processes, and the strategy they implement as they work together to accomplish joint team goals. When team members have a shared understanding of what the team is working toward and how the team-mates are going to behave, they are able to work together effectively. When team members are able to predict how their team-mates might perform, they can become extremely effective (Landy & Conte, 2007).

Mental models are considered building blocks for knowledge, as they are the references we use and the lenses through which we view the world. A mental model creates the way we see a task being completed or the approach taken by the company when people interact with customers (Karp, 2005). Research conducted by Edwards, Day, Arthur, and Bell (2006) found that teams who have an accurate mental model perform better than teams whose mental model is only similar. Teams who put extra effort into helping formulate a clear and accurate mental model can reap the rewards (Edwards, Day, Arthur, & Bell, 2006).

In order for a team to have an accurate shared mental model, it must be able to communicate at a high level. Culture and language can play roles in creating a roadblock for teams. However, it is not just culture that creates issues, as multidisciplinary teams having a variety of professionals with specialized skills can also struggle to communicate well. Along multi-generational teams who struggle to pass organizational intelligence through storytelling (Busch, Venkitachalam & Richards, 2008). Adults cannot change their mental models by just listening to commands. They need ways to integrate that information through experience and experimentation (Karp, 2005).

When people are able to use external tools as metaphors to test their existing knowledge within a new framework, they are able to create new mental models faster and with more confidence. Such tools include stories, games and physical objects (Karp, 2005). Understanding how people formulate mental models will be key information as I work to create tools to help people communicate effectively; this will enable them to problem solve quickly and make better decisions. Once again, using the process of LEGO® Serious Play™ as an example, workshop teams develop and clarify their mental models. For this reason, the development, use, and value of creating and understanding accurate mental models is of specific interest. LEGO® SERIOUS PLAY™ is a good example of a tool that helps teams develop, base decisions, create strategy and action plans formulated upon accurate mental models.

Constructivism and Constructionism Theories

Piaget's theory of constructivism explains that people are not passive learners who receive information from teachers. They are active learners who need to use knowledge in the world in order to further understand and make sense of complex concepts. He believed people leverage what they already know in order to gain more information and add to that body of knowledge. Constructionism goes one step further; Seymour Papert developed this theory. He believed people are more likely to gather new knowledge and ideas when they build things in the world. He further proposed that people use artifacts to communicate meaning within their environments and that people use this process to problem solve.

Constructivism theory explains how people build knowledge in their heads, whereas constructionism theory explains how they take that knowledge and solidify it by building in the real world. Through this process Papert believed people could create things that were tangible for other people to see, question, critique, and also use for their understanding. The value of these theories is clear within the hands-on interactive process. Within the LEGO® Serious Play™ process, the builder creates business metaphors using building blocks and gives meaning to the models. Stories are then formulated and shared as the builder uses his or her model to expand thinking while sharing information and allowing others to question (Tangdhanakanond, Pitiyanuwat, & Archwamety, 2006). Constructivism and constructionism are the two foundational theories that have been used to develop LEGO® Serious Play™.

It is of value to look at these theories and how they relate to building objects that become metaphors for ideas, thoughts, and innovations, allowing others to see three-dimensional objects that can be questioned and challenged. In many situations it is much easier for people to talk about metaphors that represent issues, rather than to question people directly.

Hofstede Cultural Dimensions Theory

Globalization and technology have allowed today's organizations the ability to conduct business in almost every corner of the world. Gaining mastery in the area of how diverse teams function will be paramount as I work on a multicultural team tasked with the development of new applications to be

used globally by a variety of teams to improve their overall functionality. Geerti Hofstede, a professor of anthropology and international management, identified four dimensions for understanding culture within work-related situations. They are as follows:
1. Power Distance: The amount of existing inequality the group perceives as normal.
2. Individualism/Collectivism: The preference to either work as an individual or as a group.
3. Masculinity/Femininity: Masculinity is seen as competitive, assertive and focused on success, whereas femininity is seen as concerns with the quality of life, interpersonal relationships and helping others.
4. Uncertainty Avoidance: The degree to which people prefer structure or unstructured work.
A fifth dimension has since been added to Hofstede's framework, long-term orientation.
5. Long-Term Orientation: The degree to which people plan into the future and see their behaviors today driving toward their goals of the future, rather than being short-term focused and needing immediate fulfilment for work completed now (Ardichvili & Kuchinke, 2002). In 1993, Hofstede gathered research on 23 countries, claiming that eventually research will be gathered on all countries and dimensions that will help to create a cultural road map (Hodgett, 1993).

Hofstede's framework has also been expanded to include not only culture and nationality, but also to look at people within nationalities (Ardichvili & Kuchinke, 2002). In the past collectivism and individualism were identified within management literature as cultural; however, research has now identified that this variable exists within people of the same culture. Since we have people who hold differing beliefs and values regarding team life, their abilities to function together within a team environment can create issues and concerns for the teams (Gundlach, Zivnuska, & Stoner, 2006). According to Hofstede (1997), the US business culture is characterized by low power distance, long-term orientation, and uncertainty avoidance with high individualism and masculinity. This analysis might translate into behavior where the leader associates casually with the workers. Their preferences are to make short-term plans. Team members prefer less structure as they complete their tasks. At the same time, the members of this team prefer to work alone and be recognized for their individual contributions. The members of a US team are considered competitive and assertive, with a view to being successful (Ardichvili & Kuchinke, 2002).

Having a cultural framework to use as a reference will be valuable as I work to develop, market, and provide tools that will be used by multinational and multicultural teams. Clearly no tool will work the same way for every team. Creating and developing tools that can be adjusted for different national and organizational cultures will be the key to the success and sustainability of any problem-solving team application.

Goal Setting Theory

Unfortunately there has not been a great deal of research on motivational theory for teams. However, it is clear that team performance is dependent on individual performance within the team; the total sum of the team is indeed dependant on the individual efforts of each team player (Widmeyer & Ducharme, 1997). Atkinson's Goal-setting theory was developed on the premise that a goal is something that is purposely set with intention. Effort is then focused on achieving that goal. When people have specific goals to work towards they are more likely to perform better than

if a “just do your best” attitude is taken (Landy & Conte, 2007). The most relevant aspect of goal-setting theory is that when people set goals, it removes ambiguity regarding what they are working to achieve (Hyland, 1988). They also have something to measure their performance against in order to receive feedback. Performance is also found to be highest when the goal is set high and people are committed to achieving that goal. Goal setting has an energizing effect on the team. It is also clear that when people are able to set their own goals the commitment level is higher than when goals are assigned for them; and once set they will deliberately engage in a process to find strategies that will allow them to reach these goals. When goals are complex, the more help people receive in developing appropriate strategies, the more likely it is they will be effective and successful in reaching those goals. There is also an element of satisfaction that accompanies the completion of tasks when people can see that task completion is associated with goal achievement (Locke & Latham, 2002).

Group goals are different from individual goals. When a goal is set by a group it is assumed group effort will be used to achieve that goal. Very little research has been conducted on the value of goal setting theory within teams; but when studying sports teams, researchers found a direct connection between goal setting, cohesiveness, and performance, which is directly connected with high performance (Widmeyer & Ducharme, 1997). To motivate workers on a team, each person must first understand how his or her individual contribution aids in the goals of the team. Likewise, the entire team must also understand how the work of the team aids the organization in moving closer toward reaching its goals. It is this connection between individual, team effort and organizational achievement that can keep people from becoming disconnected and unmotivated (Lencioni, 2002).

Goal-setting theory is valuable as it helps to explain how teams are motivated toward goal attainment. The strategy development process in a LEGO® Serious Play™ workshop has been specifically developed to help teams reach their identified goals. The process occurs in real time, meaning that it is relevant now and action items are immediately ready for implementation. The true power of this process comes from the ability of the team members to work together to analyse the current situation, to identify agents on the landscape, and to develop a strategy for goal achievement.

Transformational Leadership Theory:

While considering team performance, it is important to consider team and organizational leadership. A team may be self-organized and not have a formal leader; but all teams report to some type of leadership structure. The leadership used to motivate a team is important as it fits with goal-setting theory as described above. In 1994 and 1997 Hofsteded identified power distance, individualism, masculinity, uncertainty avoidance, and long-term orientation as cultural preferences to leadership styles. Research conducted by Ardichvili and Kuchinke (2002) found that leadership qualities universally endorsed by all cultures are found in a transformational leadership style. Burns introduced transformational leadership in 1978 (Landy & Conte, 2007). For team-based organizations to truly work well, managers from individualistic cultures such as the US, England, and parts of Eastern Europe will need to give up their former traditional methods of motivating staff individually; instead they must begin to use tools that encourage followers to leave

their individual needs behind and work together in order to make changes that create a positive outcome for all. Transformational leaders are able to impress upon their followers the value of the tasks that are being performed. And they inspire them to focus on the overall impact of their individual and unique contributions for the good of achieving group goals (Ardichvili & Kuchinke, 2002).

It is important that we understand leadership styles, as it is usually the leaders of an organization or the team who decide what team processes will be used for problem solving, decision-making, and strategy-setting. The underpinnings of Lego® Serious Play™ include the belief that everyone within the organization has information and ideas that can help to solve problems. Furthermore, if people work together to create solutions and a strategy to achieve goals, those same people will buy into the process and be more committed to attaining desired results. For this reason the tool lends itself to a transformational leadership style. Leaders who are willing to hear and consider the ideas of others can use this tool to gather important information, helping them to make smarter decisions, faster.

For the purposes of this report, LEGO® Serious Play™ has been used to provide an example of an interactive, hands-on tool that brings all types of teams together in their efforts to become high functioning. A variety of theories have been selected within this framework. Belbin's Team Role Theory was selected as it describes the process roles that are taken on by team members that are often re-enacted during team-development sessions. The value of developing an accurate team-shared mental model within this process can be helpful, as assumptions can be checked to ensure accuracy among the team. Hofstede's Cultural Dimensions Theory aids in the understanding that culture plays on people's understandings and perceptions.

The LEGO® Serious Play™ example used in this paper explains the constructionist activity, which Piaget discovered as the brain's way of understanding complex and abstract ideas. In this type of workshop people individually and collectively build their thoughts out of the bricks, with everyone telling his or her story and everyone listening (Burgi & Roos, 2003). This activity of working together helps the group define its strategy in order to collectively reach the goals. Goal Setting Theory was selected as it illuminates the need people have to set goals and define strategies, which allows them to reach those stated goals. Transformational Leadership Theory has been chosen to help explain the ways that leaders can support the teams of the future.

Research has found that when people are included in the process they appreciate that they have the ability to influence the course of action or an outcome (Landy & Conte, 2007). Having a voice not only respects the contributions of the individuals but it can be a much better way for management to make decisions. Participants are often the closest ones to the issues at hand and are usually the people who will be responsible for implementing the decision that has been made; it is valuable to use a process that includes them (Stringer, 1996).

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