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Build to Lead

How Lego Bricks Can Make
You a Better Leader



Donna Denio &
Dieter Reuther



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Beijing • Boston • Farnham • Sebastopol • Tokyo

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Build to Lead

by Donna Denio and Dieter Reuther

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Build to Lead: How Lego Bricks Can Make You a Better Leader

Harnessing the Power of Play at Work

What if you could harness the power of play—something we all knew but most of us forgot—to empower your teams, and at the same time help you realize creative and powerful solutions in the face of today’s business challenges? There is a tried-and-true process—Lego Serious Play—that is guaranteed to expand your leadership capacity and deliver predictable and consistently productive results. You will learn how and why this tool boosts both individual and team productivity. It sounds almost too good to be true, but, yes, playing with Lego bricks can help make you and your team more productive (see [Figure 1-1](#)). And who doesn’t love an excuse to play with Lego bricks?



Figure 1-1. Businesses face a number of challenges

Lego Serious Play is a facilitated team-thinking and problem-solving process in which you build Lego models in response to challenge questions, such as “Build a barrier to teamwork.” The process has a variety of applications that can be used for problem solving, strategy development, feedback, ideation, product development, relationship building, goal setting, debriefing, and performance reviews. And the 3D representations create an easy to understand, level playing field where everybody has a voice and everybody can express his or her thoughts. It’s an incredibly effective way to get everyone’s ideas on the table and, together, develop a collective plan of action (see [Figure 1-2](#)).



Figure 1-2. An example of individual model building

In his book *The Play Ethic*, Pat Kane says “Play will be to the 21st century what work was to the industrial age—our dominant way of knowing, doing and creating value.” Yeah, just try to tell that to my boss, you think. Now, wait a minute. We all know that children learn and explore personal limitations and boundaries through play, and we also know—through breakthroughs in neuroscience—that we continue to learn and grow throughout our lives. Yet teachers, parents, and cultural expectations have conditioned us from a very early age to believe that work and play are opposites. Like oil and water, the two do not easily mix (see [Figure 1-3](#)).



Figure 1-3. The rise of play

Play is what we do as children or outside of work. It brings us pleasure. (And we all know work is *work*, it's not supposed to bring us pleasure or be fun ☺.) As kids, play helps us prepare for life. It provides us with a safe environment where we can fail with few consequences and practice important skills that we'll need later in life. Research shows that kids who miss out on playing with others (where they practice their social skills), will have a harder time interacting with others later on in life.

As life-long learners, play can continue to work its magic throughout all stages of our life. After all, creativity thrives in safe environments, and we all benefit from building more trusting relationships with our clients and coworkers. And we're sure you can think of at least a couple coworkers who could benefit from improved social skills.

Play can transform us into a state where we are completely absorbed by our activity to the point where nothing else in the world seems to matter. This playful state provides a feeling of energized focus, full involvement, and enjoyment in the process of the activity. This focus is uniquely suited to high-level reasoning, insightful problem solving, and all sorts of creative endeavors. Mihaly Csikszentmihalyi calls this powerful state of mind "being-in-flow"—also called "the zone"—with just the right balance of challenge and opportunity,

given our skill sets. We know from experience that Lego Serious Play can activate these “being in flow” moments at work (see [Figure 1-4](#)).

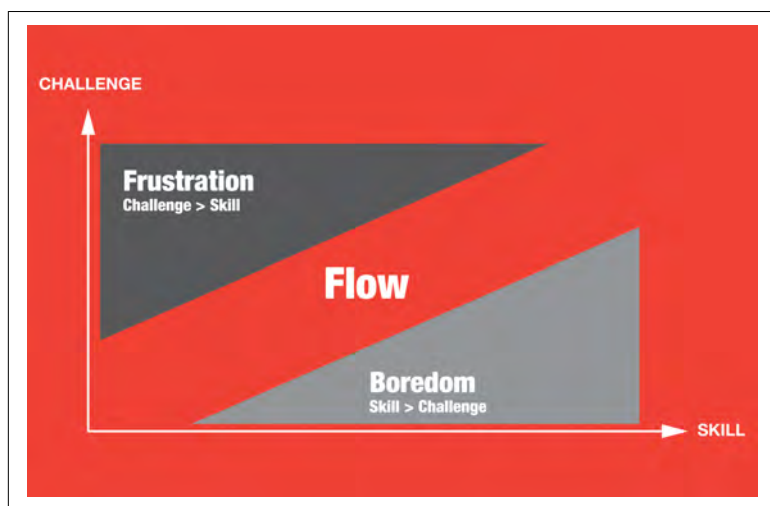


Figure 1-4. The flow principle

We’ve all experienced times when this effortless alignment exists. Remember that successful project where interactions with others were light and playful? Where the team laughed and joked a lot? Why are these moments so rare? As we mature, we minimize the playful mindset for the more serious adult nature that is the cultural norm. We are conditioned to believe that hard work, not play, is the secret to success. Everyone wants to be successful, taken seriously (be serious), and also have others respect us and our opinions. We live in a world divided—the world of work and the world of everything outside of work. In the work world, we are serious, work long hours, and make many compromises for the sake of earning a good salary, climbing the corporate ladder, and providing for our families. In the fun, playful part of our lives outside of work, we go on vacations, spend time with our friends and family, and invest energy in our hobbies.

Bringing back that childhood enthusiasm for play into work life will unlock innovation and creativity. Through Lego Serious Play we can learn to push the boundaries of conventional ideas—it helps us to think outside the box and challenge the status quo.

Tim Brown, CEO and president of the global design company IDEO, likes to use this exercise on creativity and play: he asks everyone in the audience to draw a quick sketch of the person sitting next to them (in just 30 seconds). When everyone is done sketching, the audience is typically very hesitant to show off their work. Brown explains that contrary to adults, kids would not be embarrassed at all. They would be happy to share their sketches. What happens is that as we grow up, we unlearn our creativity by becoming sensitive to the opinions of others. In exchange for serious responsibilities, we leave the crazy thoughts, ideas, and brilliant questions from our childhood behind.

While teaching, Gordon MacKenzie realized that when he asked kids the question, “are you an artist,” every child in first grade raised their hand, in second grade about 50% did, and in third grade only about 30% raised their hand (see [Figure 1-5](#)). He sadly had to admit that every school he visited was participating in the suppression of creative genius (*Orbiting the Giant Hairball: A Corporate Fool’s Guide to Surviving with Grace*).

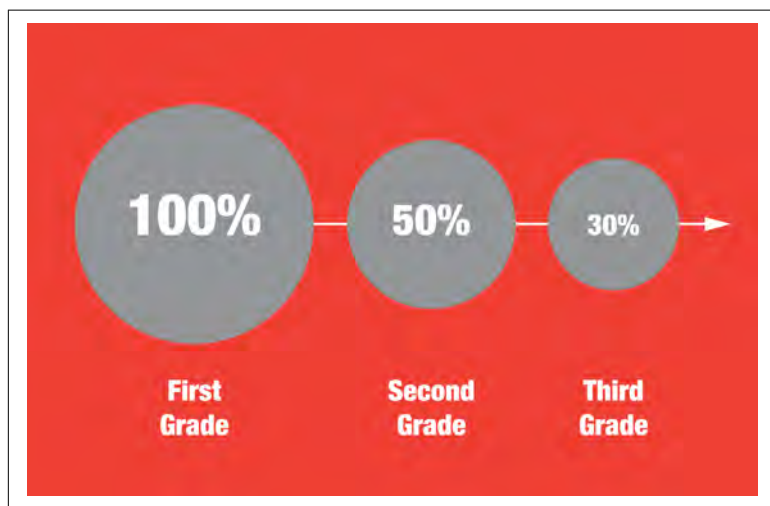


Figure 1-5. Kids feel less creative as they grow up

One of the major advantages of Lego Serious Play in comparison to other creativity exercises and tools—such as sketching, forming pipe-cleaner figures, or role play—is that building with bricks is less intimidating. Many people have reservations about their artistic or thespian talents. Everyone can stick two or three bricks together.

And you can tell a story with a single brick, especially single “bricks” in evocative shapes such as doorways, lions, or translucent blue globes.

Play can reestablish a safe environment and foster the creative-thinking capacity that we’ve lost along the way. It creates the time, space, and structure to give people a voice and the permission to share those wild ideas, thoughts, and questions, just like we did as kids. It lets us imagine and create a possible or probable future and test the advantages and limitations of this new world. This creative aspect of play is fundamental to cocreating future conditions that are more desirable than the present status quo.

Lego Serious Play was conceived with all the advantages of play and all of the self-imposed limitations and reservations of adults in mind. The colorful aspect of the bricks sets the tone. Then the facilitator carefully guides the team through a new process that becomes more and more comfortable and predictable as the building challenges unfold. First, the challenge, then mindlessly (or mindfully) building something (as the model emerges, even the model-builder is often surprised), listening to each other’s stories, telling your own, and then discussing lessons learned. When a team is engaged in building, the room feels energetic, people are laughing, telling each other stories, and learning from each other.

How Lego Bricks Apply to the Future of Work

Have you recently visited one of the coworking spaces that are popping up all over our cities? A buzzing of young knowledge workers, shared common areas, and foosball tables are surrounded by workers taking a break. Some workers even turn into nomads and spend most of their time in coffee shops. Most large companies have areas designated for “hoteling,” where salespeople, who are often on the road visiting out-of-town workers or clients, can be assigned to temporary workspaces. The business world is changing at a rapid pace, and there has been a lot of discussion about what the future of work might look like.

Changing Societal Structures

The approach of using hard work to achieve success worked well for the past 100 years, when bureaucratic hierarchies dominated corporate structures of the Industrial Age. The pyramid-shaped structure of the Industrial Age still persists in many of today's organizations and is profiled in management textbooks. The pyramid shape of the hierarchy is so prevalent that org chart templates are shaped this way. According to Peter Thomson, the acknowledged authority on the changing world of work, "Organizations are still run as hierarchical command systems in a world of networked individuals and self-employed entrepreneurs." Today, material abundance, technological advancements, and globalization impact how we live, work, and see the world. We are now in the midst of moving away from the Information Age, which is characterized by serial, logical, rule bound, and computer-like processing, to the new Conceptual Age, where parallel processing, aesthetics, emotions, and contextual thinking dominate. Contemporary workers and business goals make the past status-and-power-based structures inconsistent with work practices that engage the hearts and minds of younger workers and, more importantly, the nature of the work itself.

Structures that define culture fall into three categories: processes, tools, and environments. As we begin to think creatively about redefining workplace culture, we can look at all three—work processes, work tools, and work environments—and ask ourselves, does this process, tool, or environment give a power advantage to some or does it equalize power and encourage equal participation?

Evolving Office Spaces

The shift from assembly line to integrated work group is more obvious in the layouts of physical space than formal or informal organizational structures. Physical space layout is visible; organizational structures and networks are invisible until you're there a while. We all know that the org charts drawn on paper often have little in common with the way things actually work (see [Figure 1-6](#)).

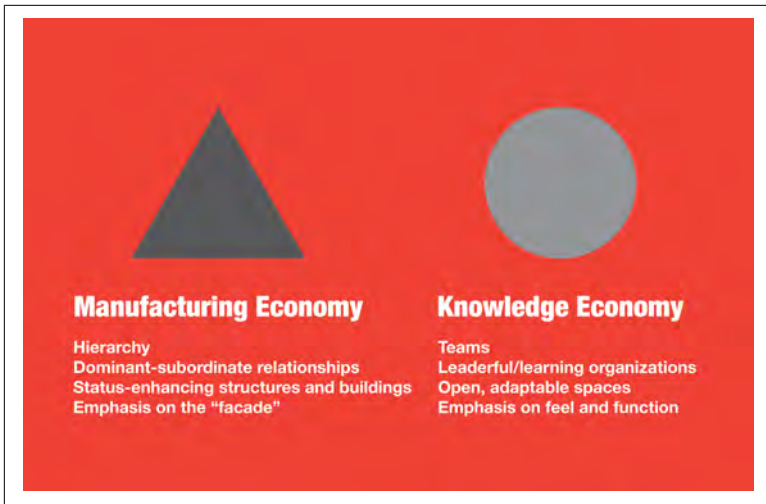


Figure 1-6. Examining organizational structure

The rows of office cubicles, made infamous in Dilbert cartoons, are gradually being replaced by open workspaces where needs for privacy are accommodated by strategically placing small conference rooms and phone rooms throughout the space. The similarities between rows of cubicles and assembly lines are pretty obvious.

If we're expected to interact with others throughout the workday, and answers to questions, challenges, and productivity live within the team (and not in the individual), what space layout makes sense? What organizational shape makes sense? And what workplace tools make sense? Organizations are seriously rethinking how and why they work and are bringing new ideas and innovation to all these areas. Specific changes related to working collaboratively and increasing flexibility in the workplace are seen across most industries, not just Silicon Valley. *Fast Company* reports the top 10 office design trends in 2016 include 20-foot community tables and the end of permanent furniture layouts.

Another example can be seen in Google's mission statement:

"When you want people to think creatively and push the boundaries of what's possible, their workspace shouldn't be a drab maze of beige cubicles. Our offices have become well known for their innovative, fun and—some might say wacky—design. Like most of our decisions, data shows that these spaces have a positive impact on

productivity, collaboration, and inspiration. Simply put, we aim to make our offices a place that Googlers want to be.”

Additional detailed description of Google’s NYC headquarters comes from a *New York Times* article,¹ “Next to the recently expanded Lego play station, employees can scurry up a ladder that connects the fourth and fifth floors, where a fiendishly challenging scavenger hunt was in progress. Dogs strolled the corridors alongside their masters, and a cocker spaniel was napping, leashed to a pet rail, outside one of the dining areas.”

Does this sound like the type of place you’d like to work? It certainly is radically different from the fabric-covered cube farms that are seen in most offices.

Challenge of Having Four or Five Generations in the Same Workplace

The Gen Y workers who are building their careers have different priorities and values than the previous generation. They are ready to work hard, but also want to have fun and find meaning in their work. According to Stewart D. Friedman, a professor at the University of Pennsylvania, “Young people today want to have a positive social impact through their work. If their jobs resulted in greater social impact and made more use of their talents, they might not feel the need to split time between work and civic engagement.”²

They also want to express themselves, wear comfortable clothes, and eliminate mind-numbing routine chores.

Most of today’s emerging leaders don’t know a world without the Internet. In the words of Peter Thomson, “They expect to be able to communicate with their colleagues wherever they are and whenever they choose. They cannot understand the traditional boundaries between home and work life and the need to be tied to a fixed desk in order to get work done. They are questioning the long hours culture and the “presenteeism” pattern of work that has been inherited from previous generations. And they value their personal freedom,

1 James B. Steward, “Looking for a Lesson in Google’s Perks,” *New York Time*, March 15, 2013 (<http://nyti.ms/25d8aXg>).

2 *Baby Bust: New Choices for Men and Women in Work and Family* (Wharton Digital Press, 2013). **Stewart D. Friedman**,

expecting to be given some discretion over the place of work in their lives.”³

Collaboration in Today’s Business Environment Is Key, Even for Introverts

Our mental model of work hasn’t kept up with today’s reality. The idea of work being hard and labor intensive is a mental model created in the days when farm and factory work prevailed. As jobs requiring manual labor were replaced by those that didn’t involve getting your hands dirty, management guru Peter Drucker coined the term “knowledge work.” Knowledge workers can only master the complexity of today’s business environment through collaboration—a collaboration of many different specialists—to harness their collective intelligence, based on difference, not sameness. Individual differences serve collaboration. Such a sharing culture requires an equal playing field on which differences are valued rather than rejected.

It is almost instinctive to like and trust the people most like you. Management textbooks in the 1980s actually described corporate culture as an extension of the values of the organization’s founders, and often the founders were people who had worked or socialized together; for example, members of the same family, classmates from the same college, or people who served together in the military. The idea of people with different backgrounds actually understanding each other and, more importantly, respecting each other’s thoughts and opinions, and then *trusting* each other is an admirable idea, but only an idea. Without some type of special training or intervention, people from different backgrounds (whether cultural or professional) are likely to discount each other’s wisdom, unjustly categorize each other because of age or background (e.g., he’s out of touch, he’s a brainiac, she’s just a wiseacre kid, accountants only care about the bottom line, marketing people give the store away, and so on), or just not seek each other out.

Bringing people together in a way that allows them to contribute equally is one of the core concepts in the design of Lego Serious Play. The process ensures that everyone participates in an equal way

3 Peter Thomson, *Reinventing the Company in the Digital Age* (OpenMind) (<http://bit.ly/1XEI8qn>).

and also provides the time and space to really listen to each other. The person leading the workshop designs and presents a customized series of challenges based on the workshop goals. Each team member constructs an individual 3D model in response to the challenge posed, and in turn, shares a story about this model. After several rounds of individual model building, team members are given challenges that require them to combine key elements of their individual models into a single model or a larger system and scenario model that allows them to visualize, explore, and understand system behaviors.

Once a workshop begins, the facilitator is responsible for adhering to the process etiquette, which mandates that everyone build his or her own model and everyone tell a story about his or her own model. No one is allowed to skip or pass on any part of the process. Because you know you will have a turn to speak, you can really listen to what others are saying instead of listening for a break in the rapid flow of conversation so you can interject your idea.

Thoughtful, introverted people (often visual thinkers, engineers, or accountants) have the same opportunities and access as extroverted, verbally fluent people. People who are shy and like to think things through before speaking have time to think while they build and find it easier to express themselves when they refer to the visual prop their model provides. Post workshop, one engineer was close to tears. He said, “Thank you for helping me communicate.” The IT manager in a leadership workshop for a nonprofit had a similar reaction.

Lego Serious Play transforms the dream of collaboration into the reality of people who are very different by helping them to express their best thoughts in a safe, supportive environment. When Donna, one of the authors of this report, trained with a group of facilitators from around the world—one from Japan, two from Singapore, and a Canadian—she found that the dynamic among and between people she just met was closer (and they knew more about each other) than with people she had worked with for many years.

In this open, safe, trusting, and collaborative environment created by Lego Serious Play, today’s organizations can achieve enhanced productivity, agility, and keep people motivated at the same time. This is the context that supports and enhances the magic of creativity and innovation.

Getting Past the Meeting Conundrum

The new collaborative approach requires that knowledge workers work closely with others and spend much of their workday in meetings. However, traditional meetings are often not effective and have long been the source of frustration for almost everyone in the workforce. There are many studies of how many hours each of us spend in meetings each day, month, and year and how many hours are wasted in them. One example is a study conducted in 2005 by Microsoft involving 38,000 participants in 200 countries. Employees spent an average of 5.6 hours in meetings each week, and 69% of them say these meetings were unproductive.⁴

Almost all aspects of the work we do have evolved in recent years: our workplaces have transformed from manufacturing and industrial work to knowledge and creative work; from office cubes to open space plans; from homogeneous groups of workers to work communities rich in diversity of age, gender, ethnicity, and educational background. Yet, for the most part, the structure of meetings has stayed the same and only the technology has changed: in addition to face-to-face meetings in offices and conference rooms, we now have phone meetings and video conferences with remote workers and external partners.

The Emergence of a New Leadership Model

“People don’t need to be managed, they need to be unleashed.”

—Richard Florida, 2002

Our collaborative workforces are more connected than any generation before us. Younger workers no longer know a world without the Internet. Their access to information and their networks expand and grow an organization’s collective intelligence, and their speed and agility typically trump many of us. How do we, as leaders, best guide such a workforce?

Traditionally, we followed a command and control approach. Managers could rely on fear to control their departments. Donna remembers a favorite boss coaching her, “Don’t let people get too

⁴ “Survey Finds Workers Average Only Three Productive Days per Week,” Microsoft, March 15, 2005 (<http://mnc.ms/1R7Awwb>).

close. You will lose your control.” In the knowledge economy, this approach no longer works. As Gary Hamel describes in *The Future of Management*, “If there was a single question that obsessed 20th century managers, from Frederick Taylor to Jack Welch, it was this: How do we get more out of our people? At one level, this question is innocuous—who can object to the goal of raising human productivity? Yet it’s also loaded with Industrial Age thinking: How do we get more out of our people? Ironically, the management model encapsulated in this question virtually guarantees that a company will never get the best out of its people.” (see [Figure 1-7](#))

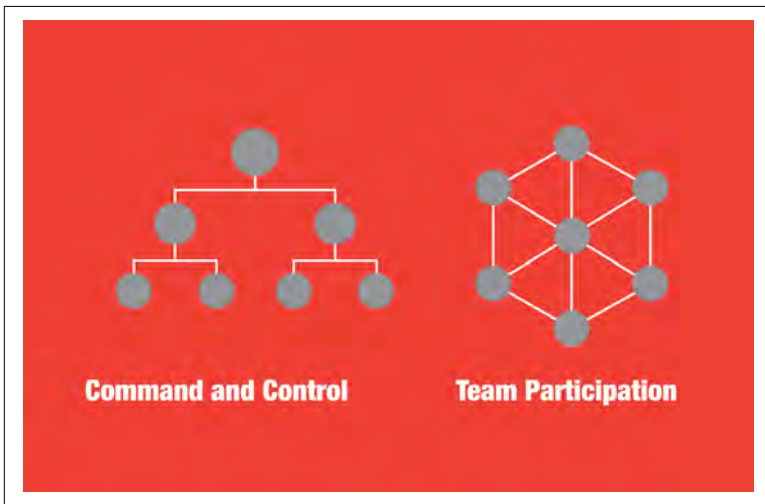


Figure 1-7. The new leadership model

We believe that creating an environment in which we facilitate thinking and inspire our people to be creative, contribute, and grow is a much more promising approach—a leadership model that teaches, inspires, and promotes full participation of team members, where we surface the leadership potential in others instead of leading them ourselves and also bring out the best performance in others. Based on the complexity of today’s challenges, a single leader no longer can have all the answers. It’s always a team effort, and each individual can contribute to a solution. As Matt Goddard says, “The greater our ability to co-create, the more we will collectively own a

sense of purpose and this can be transformational for our organizational and personal success.”⁵

One example of how Lego Serious Play helped transform an entrenched culture was when a national geotechnical engineering consulting firm wanted to improve communication and collaboration among and between offices. The Lego Serious Play workshop design had people sit together who normally didn’t work together, so each table contained one or two people from each of the company’s six offices. Through a series of building challenges, each table-based team had to collaboratively design a way to get more work. Everyone built a nightmare client, then they built dream clients, then barriers to connecting with more dream clients. One team created a landscape with two minifigs collaboratively pushing a wheelbarrow to the reservoir of gold between the mountains. Blocking the way to the reservoir was a chicken on a hinge. Their thinking was: we will get more clients if we stop being “chickens” (being afraid of picking up the phone and calling people they don’t know). And at that point, the storyteller snapped his thumb and forefinger against the chicken on a hinge and it “flew” off the model. The flying chicken became an icon of cultural transformation (see Figure 1-8).

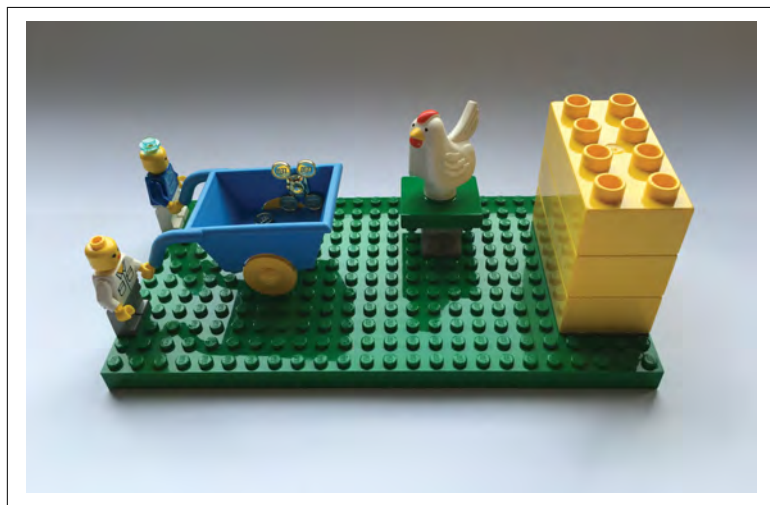


Figure 1-8. The flying chicken metaphor

5 Matt Goddard, “Do as You Think, Not as I Say...” LinkedIn Pulse, January 7, 2016 (<https://www.linkedin.com/pulse/do-you-think-i-say-matt-goddard>).

As long as individuals are enabled and motivated, the organization will be successful. This is because, in the end, people make an organization succeed or fail. Harkening back to Peter Thomson, “It takes clear leadership from the top to throw out some of the hierarchical processes and introduce a flatter structure. Managers have to behave in line with the new values of the business and actively empower their employees.”

Exploring the Magic of Lego Serious Play

Now that we’re at least curious and open minded about the potential of play to energize creativity, improve the quality of social interactions, and build trust and understanding in a work environment, the impact of the rapidly changing way we work, and the discrepancy between leadership practices and the realities of our organizational life, let’s explore how Lego bricks can fit into this picture and help address your team’s problems (see [Figure 1-9](#)). Think about a scenario in which:

- Everyone participates
- Shy people have confidence
- New perspectives are guaranteed
- Core beliefs and values are expressed
- There are no lies
- A common language is created
- Complexity is clarified
- Your team is aligned
- The results are memorable
- Time is saved by working through difficult problems

This is where you’d like your team to be operating. But why doesn’t it do that already? Two concepts from learning theory—constructivism and constructionism—provide insights about why Lego Serious Play is a highly effective leadership tool for teams. These concepts help teams think in new ways by surfacing and reframing deeply held beliefs and values (that are usually hidden and often irrational) and creating shared understanding.

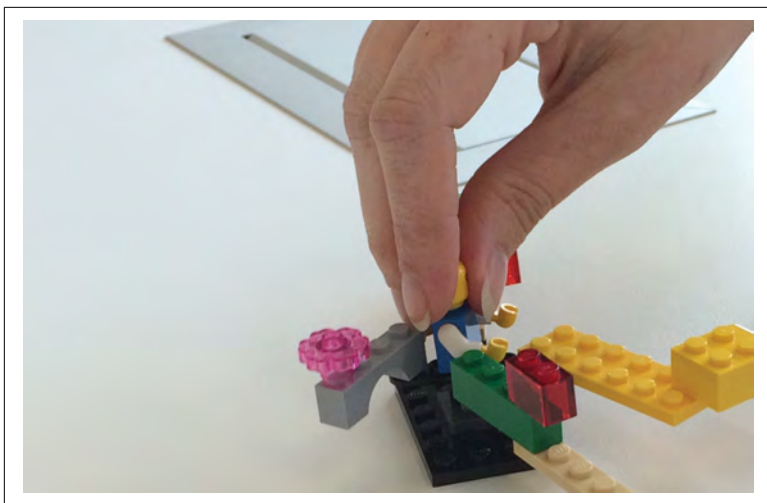


Figure 1-9. Exploring the magic of Lego Serious Play

Understanding Constructivism, Constructionism, and Concrete Thinking

Originally developed by Jean Piaget and his colleagues in Switzerland, constructivism is a theory about how people learn. It's based on observation and scientific study and says that people construct their own understanding and knowledge of the world through experiencing things and reflecting on those experiences. When we encounter something new, we have to reconcile it with our previous ideas and experience, maybe changing what we believe, or maybe discarding the new information as irrelevant. In any case, we are active creators of our own knowledge. To do this, we must:

- Ask questions
- Explore
- Assess what we know

Building on and incorporating the theory of constructivism, constructionism was coined by Seymour Papert at MIT. Where constructivism is based on a random evolution of experiences, constructionism has a more active component. The learner actually manipulates objects to clarify the learning experience. In the words of Papert's colleague, Edith Ackerman, "Papert is interested in how learners engage in a conversation with their own or other people's

artifacts, and how these conversations boost self-directed learning, and ultimately facilitate the construction of new knowledge.”⁶

The two theories work hand in hand. Constructionism speeds up and enhances constructivism. *The Science of LEGO SERIOUS PLAY* summarizes, “Constructionism is a way of making formal, abstract ideas and relationships more concrete, more visual, more tangible, more manipulative and therefore more readily understandable.”⁷

The emphasis that constructionism places on concrete thinking has obvious importance for Lego Serious Play. At the core of both ideas is the notion that when we “think with objects” or “think through our fingers,” we unleash creative energies, modes of thought, and ways of seeing that most adults have forgotten they even possess. Lego Serious Play stakes its reputation on the belief that adults can regain their ability to play, can dust off those modes of concrete thinking and put them to use again, and that when they do, great benefits are in store for them. As lifelong learners, we continue to read, observe, and learn from our own experiences and the experiences of others. Lego Serious Play, because it gives us the time and space to pause, think deeply and reflect, helps us make our thoughts and observations concrete.

An example of how constructivism and constructionism are facilitated by Lego Serious Play was given when Donna was asked in a workshop to build a model of herself. Nothing immediately came to mind, but for some reason, she was attracted to Lego bricks that formed a small house, with movable doors and windows. The knob structure of the building components allowed her to attach a female head to the top of the house (see [Figure 1-10](#)). When asked to tell her model story, she explained that her team role was to create a safe space (the house) for her team members. Both the model and the story were surprising and helped her and her teammates better understand how and why she works.

6 Edith Ackermann, “Piaget’s Constructivism, Papert’s Constructionism: What’s the difference?” Future of Learning Group, MIT Media Laboratory (http://learning.media.mit.edu/content/publications/EA.Piaget%20_%20Papert.pdf).

7 *The Science of LEGO SERIOUS PLAY*. executive discovery llc (<http://www.strategicplay.ca/upload/documents/the-science-of-lego-serious-play.pdf>).



Figure 1-10. A safe space for team members

Building Interconnections and Relationships

A business or a company is so much more than a building and the people in it. It's a vast network of interconnections and complicated relationships on many different levels. "Organizations are about people. They are the gardens in which the collective hopes, aspirations, and beliefs of the people within them are planted, grown, and harvested."⁸ Conveying such abstract relationships on paper through graphs, flowcharts, block diagrams, and so on, often fails to capture the dynamic nature of the enterprise. Although computer modeling and simulations are a step up from static models, these too are limited. It is often very difficult to comprehend the totality of these complex interrelationships. But Lego Serious Play makes it possible to see and comprehend the complex nature of your organization and share this agreed-to understanding with others. It allows you and your team to build a bird's-eye view of the team strengths, a department, or a whole company and their roles, understand how individual roles impact others, and how changes in the external environment and the actions of others impact the team's ability and motivation to perform effectively.

⁸ Mark Youngblood, "Leadership at the Edge of Chaos," *Strategy & Leadership Magazine*, September 1997.

For example, one high-tech company used Lego Serious Play for a two-day strategy session. Participants constructed the organization with metaphorical models representing each department, and connected departments by using a variety of connection pieces. There was a weak link between design and accounting, so they represented that connection with a piece of twine. Product development and the organization's leadership team were in daily communication so they were linked by a pathway of bricks (see [Figure 1-11](#)).

The second day of the workshop was devoted to building models of outside forces that impacted the company's growth, such as access to capital, the press, and various competitors. Participants then played out a variety of what-if scenarios, right on the model. When the competition launched a new product, everyone could see the impact and design a thoughtful (instead of reactive) response.

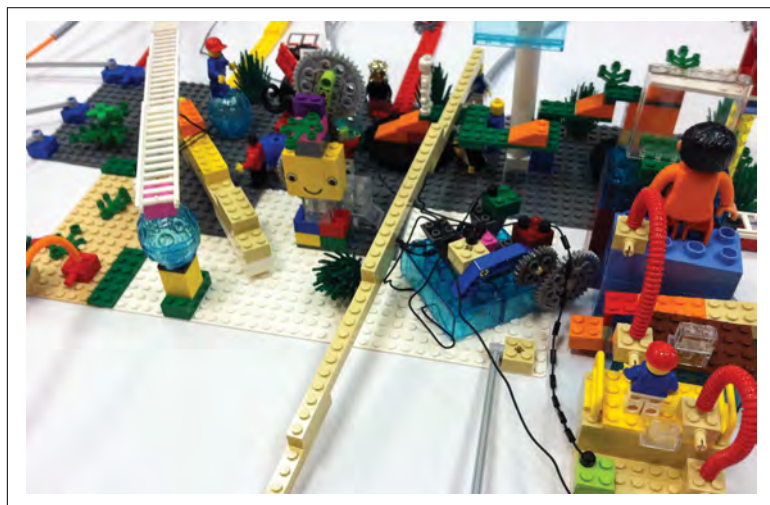


Figure 1-11. Lego bricks showing interconnections and relationships

Working with Your Hands and Brain

Some of us describe ourselves as left-brained and some as right-brained. The left-brainers are analytical, strategic, and realistic, whereas right-brainers are creative, visual, and emotional. The reasoning for this duality is that the brain is divided down the middle into two hemispheres, and each half is performing a distinct set of operations. The right side controls the muscles on the left side of the

body, and the left side of the brain controls the muscles on the right side of the body (see [Figure 1-12](#)).

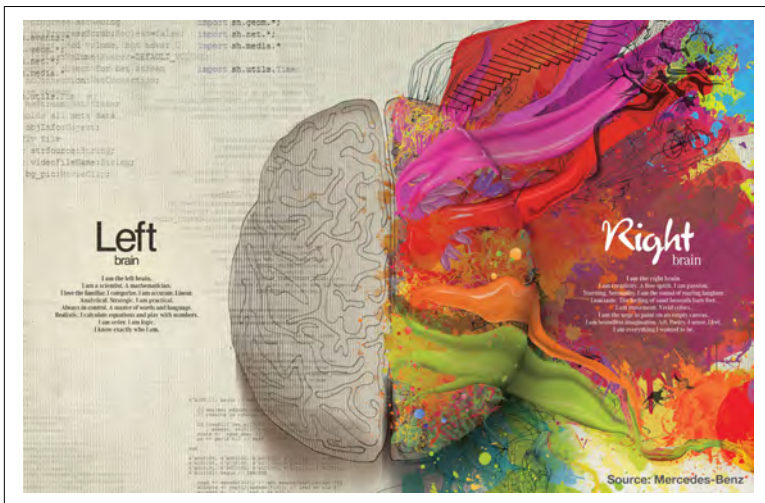


Figure 1-12. A Mercedes Benz ad showing the left and right brain

This separation of control explains the benefit of using both hands while constructing Lego models: both sides of the brain are involved, and analytical as well as creative areas, experiences, and skills are being used.

Additionally, the human body provides the hands with a very direct connection and access to the brain. The motor homunculus model perfectly visualizes this power-connection between the hands and the brain (see [Figure 1-13](#)). It's a proportionate representation of the brain's dedication to the parts of the body responsible for motor functionality. The more brain power involved in the planning, execution, and control of a body part's movements, the larger the body part is in the motor homunculus model. The hands take up a very large part in the brain, and thus the benefit of working with the hands while building models: we think with our hands.



Figure 1-13. Motor homunculus

Using Lego Bricks to Explore Imagination, Storytelling, and Metaphors

The models that are created during a Lego Serious Play session are typically quite simple. Our experience has shown that the simplest models can result in the deepest stories and insights. You can tell a great story with a single brick. Imagination helps turn a single Lego brick into a captivating story (see [Figure 1-14](#)).



Figure 1-14. Use your imagination

The goal of Lego Serious Play is not to create physical representations of things. Instead, most models that people build are very abstract and metaphorical representations of something they want to express. To understand the concept of metaphor, it is easier to analyze examples of metaphor rather than reading abstract definitions. One of our favorite uses of metaphor (or figure of speech) is in the famous line written by William Shakespeare, “All the world’s a stage, And all the men and women merely players; They have their exits and their entrances, And one man in his time plays many parts.” In this metaphor, we compare the world with a stage.

Thinking of the *metaphor* of world as a stage is ripe with opportunity to reframe almost everything we do. We can step back and laugh (or cry) at our own quests and victories. Thinking of the world this way is just a small window into what is possible when you begin building the world you experience now in a way to share and describe it to others and then build the world you desire with Lego bricks.

An example of how a new metaphor was used to rethink and reframe business culture is given in an exercise that the president of the Boston Museum of Science presented to his staff. He asked them, “If our museum is a solar system, and I am the sun, who are all of you?” (see [Figure 1-15](#)).

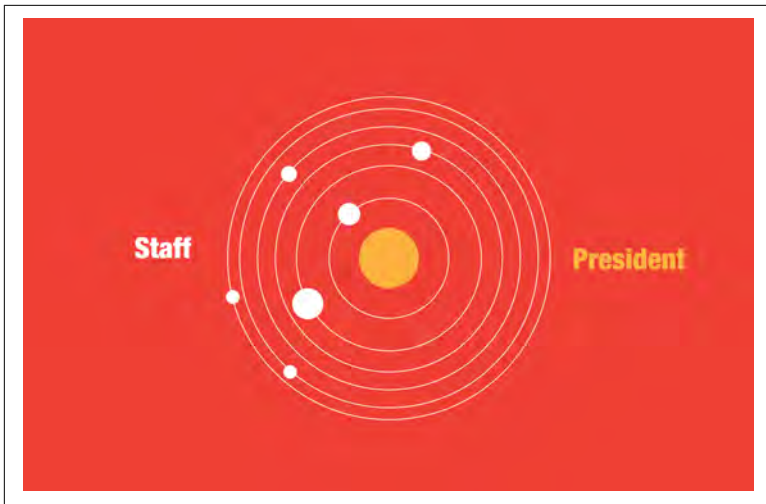


Figure 1-15. The museum as a solar system

Metaphors are a key component of how we understand the world and how we explain the world to others. In the world of Lego bricks or elements, many single bricks are rich in metaphorical content. For example, picture transparent ice-blue globes, green spiky elements that can be a tree, a plant, a hat; doors and windows that open and close, wheels, mini-figures with a great variety of hats and hair, and a variety of animals (e.g., monkeys, polar bears, cats, elephants, a whole family of lions, and so on), allow you to tell amazing stories based on a single brick.

Lego Serious Play provides easy access to creating new metaphorical frameworks. For example, one workshop participant built a self-portrait model as a giant smile. Another used a tiger to represent herself. The tiger was touching ears with a zebra and a lion to show how, even though we are diverse, we listen to each other and understand.

George Lakoff, a linguistics professor at the University of California, is widely cited as being the first to describe the impact and the linguistic construction of metaphors. Lakoff explains how linguistic systems relate to each other in much the same way that elements of a building relate to each other. There are foundational ideas and concepts, and these foundational ideas limit or shape the options that can be constructed on a specific foundation. Current learning theory (constructionism) explains that as we learn, as we build

knowledge in our minds, we relate the new knowledge to existing knowledge. This is how we make sense of ideas and remember them.

One foundational idea is that argument is a war. According to Lakoff, we don't state this idea openly; it is understood through the characteristics of "argument," which become obvious in the way we think and speak about an argument. One common way we speak about an argument is "to attack a position."⁹ Lackoff says:

We talk about arguments this way because we conceive of them that way (as a war)—and we act according to how we conceive of things.

Try to imagine a culture where arguments are not viewed in terms of war, where no one wins or loses, where there is no sense of attacking or defending, gaining or losing ground. Imagine a culture where an argument is viewed as a dance, the participants are seen as performers, and the goal is to perform in a balanced and aesthetically pleasing way. In such a culture, people would view arguments differently, experience arguments differently, carry them out differently, and talk about them differently.

For example, dance suggests positive interaction among and between people: energetic co-creation to an upbeat soundtrack. Shoot at each other or celebrate? You can choose. We participated in a leadership development workshop (not involving Lego bricks) in which team members focused on enrolling each other in projects. Participants became so energized that everyone was out of their chairs, literally jumping for joy, dancing. The workshop facilitator provided context, "I want to be part of your team. Whatever it is you are doing, your enthusiasm is contagious. I want to be part of a project where there is dancing."

War metaphors are so commonly used in business language that they've become invisible, yet they impact how we feel and act. According to Tom Albrighton in the article "Twenty Business Metaphors and What they Mean,"¹⁰ "the idea of business as war is reflected in a huge number of phrases, including 'campaign' (often used in marketing), 'gaining ground' (e.g., on a competitor), 'rein-

9 George Lakoff and Mark Johnson, *Metaphors We Live By* (University of Chicago Press, 1980) (<http://theliterarylink.com/metaphors.html>).

10 Tom Albrighton, "Twenty business metaphors and what they mean," ABC Copywriting, March 18, 2013 (<http://bit.ly/25d8Iwr>).

forcing’ (e.g., a firm’s public image), ‘joining forces’, ‘regrouping’, ‘rallying the troops’ and so on.”

Albrighton goes on to explain the impact of military metaphors: “Reinforcing ideas of hierarchy and obedience could lead to rigid structures that are resistant to change. Then there are the psychological implications of being permanently on the attack—or on the defensive. Who really wants to fight an endless war? More subtly, the martial mindset might blind combatants to the possibilities for productive ‘alliances’ based on a ‘truce’ with their ‘enemies’, or what is sometimes referred to as ‘co-opetition.’ Similarly, strict hierarchies and a focus on top-down objectives might blind ‘officers’ to good ideas coming from those ‘in the trenches.’”

A Lego Serious Play workshop allows you and your team to move beyond war metaphors and develop a whole new system of metaphors. Now, think about the metaphor and how you feel at work sometimes when you’re trying to convince a team member about an idea you have. Think first of dragging along an elephant with a group of people strapped around the elephant like a saddle. Then think about the inverse: you standing in a garden of flowers. So, which do you prefer: “Do you feel like you are dragging your team along? Wouldn’t it be better to harvest a garden of opportunities?” (see [Figure 1-16](#)).



Figure 1-16. Exploring metaphors with Lego bricks

Improving Meeting Participation

When you think of a traditional meeting, imagine it instead with Lego bricks. The command and control scenario transforms to be more of a “lean in” meeting—because everyone is leaning in and working with the Lego bricks on the table together. Teams engaged in cocreating with Lego bricks are either standing, bending over the table to place or alter a model, or sitting forward in their chairs. This is a sharp contrast to traditional meetings where participants lean back in their chairs, with hands behind their heads, some with heads down, reading emails or texting on their phones, only partially paying attention. Imagine how much more productive meetings would be if participants were fully engaged in creating and speaking about alternative solutions and deeply interested in what each other has to say (see [Figure 1-17](#)).

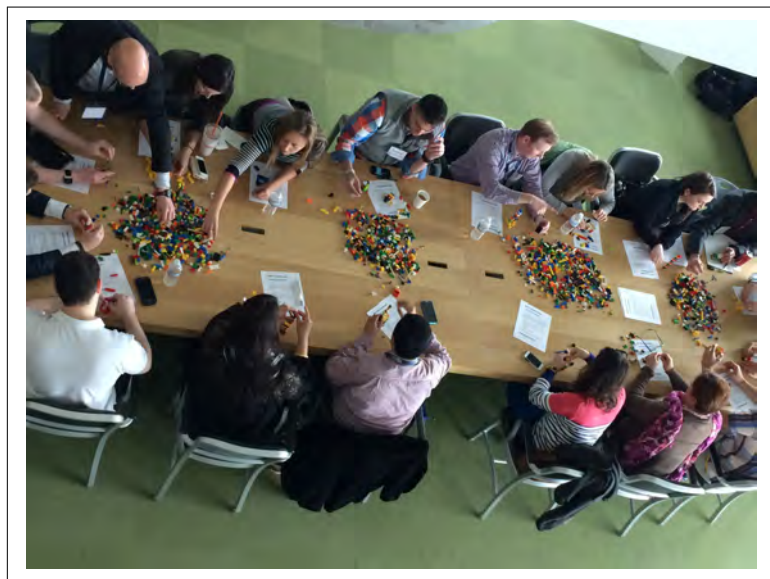


Figure 1-17. Lego Serious Play lean-in style of meeting

Building Trust and Focus

The process of using Lego bricks in a team-building exercise quickly and efficiently surfaces previously hidden insights and enhances trust and understanding between and among team members. Both the speed of the process and the deepening of trust make a team more productive.

The structured approach of the facilitation methodology also helps people focus on the moment. The clearly defined building tasks and the guidance by the facilitator clear your mind from thinking about other problems and puts it in an unplugged state. You get lost in building with your hands, bring intuition from your experiences into something concrete, something to look at, touch, and share. Csikszentmihalyi explains in “An Exploratory Model of Play” that “The more things we perceive requiring us to act, and the less compatible these actions are with each other, the more worried we become.” By focusing on individual building tasks, the moment of play calms us down and grounds us in the moment.

In one workshop, participants were obviously uncomfortable and a little annoyed when they entered the room. Some were thinking, “This is a waste of time. We have so much work to do and management is making us play with Lego bricks.” As the building challenges unfolded, people began to relax. Some light laughter and playful banter began to break down the annoyed silence. At the end of the workshop, one of the most seasoned members of the team, a white male baby-boomer, came up to us and said, “I told my wife this morning that this was the stupidest thing I had ever heard about. I was so wrong. We all have been the most honest and authentic we have been in a long time.”

In addition to the calm that manipulating bricks can bring, the happy Lego brick colors make many people smile. Just seeing and touching certain bricks inspires you to do something with them. Copying from other people gives you ideas. This sense of openness and collaboration is what you want to energize in your team (see [Figure 1-18](#)).



Figure 1-18. Happy Lego brick colors

Harnessing Collective Intelligence

Lego bricks are also a highly effective method for harnessing collective intelligence. The National Science Foundation funded a multiple-year study to isolate, identify, and measure collective intelligence.¹¹ The study involved 699 individuals and concluded that a general collective intelligence emerged. Interestingly enough, this general collective intelligence, or C-factor, was not linked to the average or maximum intelligence of individual members of a group. Instead, the C-factor was linked to average social sensitivity, equality in the distribution in turn-taking, and in the percentage of women in the group. Groups who took turns more often and whose members could read the emotions of others by observing body language and facial expressions both tested higher on pre-activity assessments and scored higher in time and accuracy of task completion (see [Figure 1-19](#)).

¹¹ National Science Foundation, “New Study Validates Factors That Enhance the Intelligence of a Group,” <http://1.usa.gov/1Sb8ZJe>.

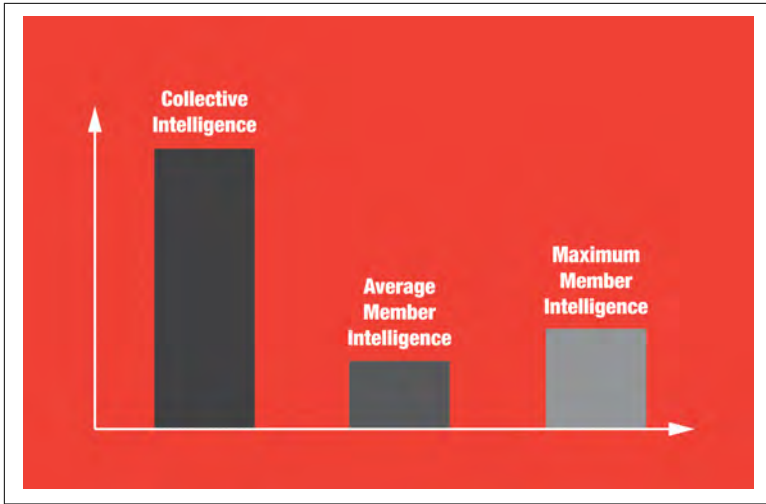


Figure 1-19. Measuring collective intelligence

Lego Serious Play team-building etiquette requires equal participation by everyone in the group or team, and the model-building process is an excellent and safe medium to express emotions. Collective intelligence is naturally and predictably optimized because process guidelines equalize participation and provide people who are shy or slower to speak a way to easily express themselves. Also, people with lower levels of emotional intelligence can now see and express emotions. Tangible models can become visual representations for emotions that are difficult to express. You can build a red heart to show love or make a chicken fly off your model to show overcoming fear.

Understanding the Lego Serious Play Process

Lego Serious Play combines learning theories about play, communication, and knowledge creation with what we know about harnessing collective intelligence, building trustful relationships, and creating efficient and effective meetings that get right to the heart of what matters. It's an incredibly effective way of surfacing information and making complex decisions. Buy-in is assured because everyone at the table had a role in the outcome.

A Lego Serious Play workshop is a facilitated process that requires the experience and knowledge of trained facilitators to guide participants and achieve meaningful results. We recommend that organizations that are seriously committed to the process hire a certified facilitator or send employees to an established facilitator course.

Based on the goals of a workshop, the facilitators design and plan the overall flow and the individual build challenges ahead of time. We typically start with a simple warm-up exercise to help participants become familiar with the Lego bricks. The next module is usually around personal challenges and opportunities, followed by a module around team challenges and opportunities. The facilitator leads participants through these steps. Hands-on building and storytelling segments alternate. During the build segments participants focus on the moment and on selecting and combining bricks. The storytelling segment that follows taps into the imagination and unleashes deep-rooted thoughts, ideas, and also problems.

For more detailed information on specific aspects of the process, the book *Building a Better Business Using the Lego Serious Play Method*, by Per Kristiansen and Robert Rasmussen, is an excellent resource.

Conclusions

Leadership is about seeing a path through myriad workplace challenges and helping everyone around you see it too.

We all share a desire to be successful and to contribute to the success of people around us and to help meet our shared organizational goals. Yet so many stress factors get in the way. We add people to our teams without really getting to know them. Then one deadline after another contributes to barking orders instead of listening. Lego Seri-

ous Play offers the opportunity to step off the treadmill and look at the big picture, together.

We all sense the workforce getting more and more diverse. Some new hires are fresh out of school, some came to the United States from India, Mexico, or China in search of quality education and now want to work hard to achieve successful futures for themselves and their families. Others take family leave or an early retirement and are now reentering the workforce. Lego Serious Play offers a way to blend and meld this collective melting pot of wisdom within our teams into a tangible and concrete shared vision.

Yes, play at work is disruptive, and our teams and organizations are silently crying out for this disruption. We all know in our hearts that continuing “business as usual” will not bring forth a collaborative future where we can apply our best minds to the global challenges we face together, such as creating clean, renewable energy, human-focused technology that works, and safe and secure cities.

About the Authors

Our own connection to Lego Serious Play is rooted in the process' connection with the workplace of the future and in the role leaders play in regards to the success of projects.

Donna Denio was helping architects with marketing and business development, and one area targeted for firm growth and expansion was the workplace of the future. The book *Excellence by Design, Transforming Workplace and Work Practice*, based on work from a research group at MIT, contains many interesting ideas on the future of work, workspaces, and work tools. The book introduces the idea of using *design games* to reduce or eliminate inherent conflict when people of unequal power have conflicting interests. The design game is “draped over the existing organization with its ongoing game of interests and powers.”

In an effort to commercialize this research work, Donna approached the Lego Group as a potential partner to manufacture *design games*. She connected with Robert Rasmussen, one of the early designer/developers of Lego Serious Play, and began collaborating. Lego Serious Play proved to be a much more flexible and versatile tool than the original *design game* concept. The *design game* is only one of many Lego Serious Play applications.

During **Dieter Reuther's** time as Information Technology Director at the design and innovation firm Ziba Design, he led a Six Sigma project to find out why some of their projects were extremely successful and why others ran over schedule and/or budget. The Six Sigma team compared dozens of projects and scrutinized every project aspect to either confirm or disregard initial hunches: was it the project size, the client size, the location of the client, or maybe the size of the project? None of this proved to have a significant impact. Instead it was the pairing of project leader with the project team and the individual team members. Some worked well and others just disrupted the flow of projects and led to failure. This insight that the human aspect of projects can have such an immense influence drove him to explore the power of Lego Serious Play to help teams be more successful.