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Weaving action learning into the fabric of manufacturing: the impact of humble inquiry and structured reflection in a cross-cultural context

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ABSTRACT

This account of practice examines the implementation of and reactions to action learning through the Lean methodology in a unique, cross-cultural context. I review my time spent as a Lean coach; engaging with, training, and using action learning with employees in a garment manufacturing facility located in Bali, Indonesia. This research addresses the issue of action learning as it applies to line-level manufacturing workers in an Indonesian national culture. The paper first examines the role of action learning as it applies to the Lean methodology. Then I reflect on broad observations from my ethnographic research, before delving more deeply into the process and reflections of the action learning group. I conclude with some key learning points for the role of action learning for manufacturing work in cross-cultural environments.

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Introduction

Early in my career, I began using elements of action learning to motivate and to lead my teams of employees through reflection and learning processes focused on enhancing our ability to problem-solve. My experience with action learning came through my knowledge of the Lean methodology – based on the principles of the Toyota Production System. I discovered that the process of actively experimenting with problems and then working through a structured reflection process, led to enhanced performance outcomes, while also significantly enhancing the social relationships in which we were embedded. Action learning, it seemed to me, was not only an effective way to engage adults in on-the-job learning and problem-solving, but it also seemed to have the ability to diminish power differentials and transcend differences.

During my MBA program, I was given an opportunity to examine this hypothesis further by acting as a Lean coach at a small garment manufacturer in Bali, Indonesia. This company was based in Bali, operated by two American ex-pats, one of whom had been spending the past seven years learning elements of Lean and experimenting with them in the factory. My role would be threefold. First, I was given the challenge of working with an action learning group – composed of five people who all worked on the same

line, and therefore worked interdependently toward producing a particular product. Second, I would observe and learn from the processes going on in the factory. This included watching, learning, and asking questions of the employees as they ran experiments and learned the problem-solving process themselves. Finally, I had the opportunity to experiment, reflect, and learn more about myself as a coach for action learning groups.

In this account of practice, I first delve into the connection between Lean and Action Learning. Then I lay out the context of this work environment more fully. I review my data in two parts: my work with the action learning group and my ethnographic data collection of observation and interviews in the factory as a whole. Finally, I describe my key findings from this experience – providing what I learned from this experience and describing how I believe it can help facilitators of action learning groups.

Action learning and Lean

Lean is an operational or process-improvement methodology based on the principles of the Toyota Production System (Womack, Jones, and Roos 1990). The two primary tenets include reducing waste by creating value for the customer and respecting employees for their contributions in adding value. Lean not only focuses on reducing operational waste (i.e. inventory), but is also dedicated to changing the way the employees engage in work by reducing ‘waste’ in behavior. The primary emphasis for reducing behavioral waste is by integrating learning, reflection, and feedback loops into the work at all levels through a cycle of Plan-Do-Check-Act (PDCA cycle) (Deming 1986), an action learning process of learning and reflection.

Lean is fundamentally connected to action learning through both the tools focused on reflection and the underlying philosophy of problem-solving and fast cycles of learning (Seddon and Caulkin 2007). Revans’ (1980) action learning paradigm involves engaging in experimentation and reflection for the purpose of improved problem-solving and learning. The overarching Lean framework that emerged from the Toyota Production System uses structured problem identification (through A3 problem-solving), individual and group reflection through the PDCA learning cycle, and habit-building through practicing kata in order to enhance structured fast learning cycles (Womack, Jones, and Roos 1990). In most Lean contexts, people work together in groups, or action learning sets, in order to solve problems related to their work.

Context for this action learning experiment

The setting for this work is a small business that designs, sources material, manufactures, and sells knitwear, located near Denpasar in Bali, Indonesia. The organization is owned by two American expatriates who relocated to Indonesia from New York after they graduated from college in 1992. They fell in love with the pace and lifestyle of the country, and in an attempt to ‘weave Indonesia into our lifestyle’, they decided to start a business there (owner, personal communication, October 18, 2014). Currently, they have a factory in Bali dedicated to design and manufacturing and an office in New York dedicated to sales. They primarily sell wholesale to retail companies in the United States, Australia, Canada, and Europe.

The design and operations elements of the business are theoretically and physically separate. Each is run by a respective member of the couple, and each employs a different

group of people. My time in the factory was spent entirely in the operations/manufacturing side, which is run by the husband, from here referred to as ‘the owner’. The owner identified two primary turning points in the history of their company. The first turning point was when they moved away from cut-and-sew garments into knitwear accessories, the current foundation for their business success. The second turning point for the company came in 2007, after he read the book *The Toyota Way* (Liker 2004) and began to use Lean tools in the factory. He said that the problems identified in this book were the problems they were having in the factory, and this likeness encouraged him to try this operational methodology. After extraordinary initial success in productivity of operations, he decided to continue to focus on implementing these ideas with the goal of engaging his workforce in running experiments, continuous learning, and problem-solving – the basic tenets of the Lean ideology (Liker 2004) and motivated by the principles of action learning (Revans 1980).

Leadership at the factory

Understanding the context for the integration of an organizational change methodology should begin with an examination of the person leading the change process. The owner of the factory was a particularly interesting individual because he demonstrated a profound appreciation of the problem-solving ideology underlying Lean. He understood that the roles of problem-solving, learning, and reflection are fundamental to the integrity of the Lean ideology. In a blog post he contributed to the Lean Enterprise Institute website, he likened the PDCA learning cycle – a fundamental component to engaging a workforce that solves problems – to breathing:

‘What happens if you stop breathing?’ I ask my team members. When I ask this, generally there’s a slight pause, then comes a smile and finally people reply, ‘You die.’ Yes, you die. And that is exactly what happens to Lean without PDCA. Lean thinking and practice is not something to be done from time to time. ‘Oh, we’ve got a juicy problem here, let’s do some PDCA.’ It really should be the underlying thought process that supports all Lean activity. Lean does not and cannot exist without continuous PDCA. Period.

Additionally, the owner demonstrated an understanding of the principles of respect for people and empowering line workers to solve problems. He perceived trust as fundamental to getting the most out of relationships; a phenomenon he coined as ‘The Trust Economy’. He became excited when someone brought a problem to his attention, because that provided an opportunity for collective learning, as he guided them through a process of solving problems through experimentation and reflection.

Not long after I entered the factory for the first time, he pointed to a small machine part that was sitting on his desk. It was a faulty part that was ignored and caused a machine explosion a few years prior. There were minor injuries from the explosion, and he kept the part as a reminder to always make safety the first priority for his workers. He understood that his employees were the ones doing the value added work, and that taking care of them and helping them to engage in learning and reflection was fundamental to the success of Lean in his factory.

The key has to be, I think, that you’re engaging with the person that’s doing the value added work and engaging them to take ownership of the work and to commit to continuously

improving it. So, it's if you can make the connection between doing that and delivering value to your customer while enhancing long term prosperity and your future.

The employees in the factory

At the point of my arrival, the owner found himself facing one of the common problems among organizations who have tried to embark on a Lean journey. The factory had successfully implemented some Lean tools, and had seen incredible operational results (i.e. significantly reduced processing time from order to delivery). However, despite operational successes, the employees were not all equally engaged in the problem-solving mindset rooted in action learning required for experimentation, reflection, and learning. There were two primary challenges that the owner faced in being able to engage his workforce in action learning: the national culture and the industry culture.

One way to meaningfully parse apart national culture is Geert Hofstede's dimensions of culture (1980). Two dimensions, in particular, describe the culture of Indonesia very broadly: power distance and individualism. Power distance refers to how people view inequality among people, specifically those in leader versus non-leader roles. Indonesia scores moderately high on power distance, which suggests that authority is accepted and the authority role is not typically challenged by those with less authority. Individualism refers to the degree to which people prefer to act as individuals versus acting as members of collectives or groups. Indonesia tends to score quite low on individualism, suggesting that there tends to be a generally collective mentality. The two of these dimensions taken together produce a tendency toward deference to authority and a tendency toward supporting the collective behaviors of the group.

In addition to these elements of national culture, the industry of garment manufacturing for skilled and unskilled garment workers in Indonesia presents its own culture. The factory in which I worked operated in Bali: still a strong player in the garment industry and built in part through the relationship to ex-patriots who either married Balinese locals or started businesses in Bali. Garment workers in Bali face a highly competitive market composed of workers who have no significant social or organizational capital themselves, but who are typically free to move from factory to factory where demand is high due to a reliance on the piece-pay system. In this particular factory, the owner had moved from a piece-pay system to a salaried system, in part to align with his focus on action learning. Giving workers a salary allowed them to focus less on quantity and more on quality of production, which included engaging in action learning behaviors.

Experiences and outcomes

My role as an action learning facilitator

I had the pleasure of joining this organization for three months in the summer of 2012. Combined, I have over 400 hours of participant observation with field notes and memos; approximately a dozen unstructured interviews; 4 semi-structured interviews with the owner and managers; 14 survey interview responses from line-level managers and workers; and archival data including videos, lectures, and online articles and blog posts. The participant observation data were collected from June to August of 2012. The remainder of the data was collected during October–November of 2014.

In addition to having the opportunity to conduct ethnographic, observational research in the factory, I worked specifically with a small action learning group composed of multiple people fulfilling different roles on the manufacturing line. The experiences on which I am reflecting, therefore, start with the broader ethnographic work inside the factory, and then move to examine the specific action learning group work.

Ethnographic observation and interviews

In my broader analysis, I examine the reactions to the diffusion of Lean and action learning from two perspectives: the mid-level managers and the line-level workers. These two groups had varying reactions that demonstrate meaningful differences in understanding the influence and use of action learning in this context.

Mid-level manager reactions to action learning

The mid-level managers included any of the managers who were responsible for more than a single line in the factory. This includes the production manager, the design manager, the order manager, and the human resources manager, and they were the people who acted as Bahasa-to-English translators when I was working with the line-level employees. The managers seemed to have bought in to the idea of Lean, but not necessarily to the role of action learning required to fully grasp the Lean ideology. 'Lean system is very good, but not all the workers understand.' The managers' language indicated a shared frustration that the line-level employees were not autonomously engaging in the action learning process of problem-solving and continuous learning. 'We were always using instruction. They would do it, but they were not following.' 'We need to make them think Lean.' 'We want to work with them, to correct them.' One of the mid-level managers identified that 'we are open for any improvement for everybody. We accept any idea – even if it is from the lowest level'. Each day, managers would walk the floor and speak with a certain number of employees who were working on the line. Often, they would ask what ideas the employees had that day. The enthusiasm from the mid-level managers around encouraging the employees to engage in action learning was palpable. They often mimicked the behavior of the owner – as seen through the way they walked the factory floor and questioned the line-level employees. Their language, however, indicated that they felt a sense of control over the process of changing the ideology inside the organization. This control that they felt suggests a fragmentation between themselves and the line-level employees. By attempting to control the outcomes at the line-level, the mid-level managers seemed to create some division between themselves and the line-level employees, which was not challenged by the line-level, or lower authority, workers.

This control behavior was indicative of the power distance typically seen in Indonesian culture. The idea that the manager has the answers and the employee has the ability to do the work was pervasive, even in the face of integrating action learning principles into the organization. These cultural issues presented a challenge to the role of action learning in that it was being imposed on the line-level workers without being fully embraced or understood.

Line-level employees' reactions to action learning

The line-level employees were composed of any worker from a line that either managed a single line or occupied a specific role in the production process on the line. The behavior and reactions of the line-level employees were more diverse and did not always reflect the same level of enthusiasm and interest that the mid-level managers and the owner expressed.

Lean as an imposition

Some of the line-level employees indicated feelings of dissatisfaction with the Lean journey. 'Sometimes exhausted', 'happy, but tired', '[we have to] solve problems over and over again', 'tiring because we are pushed to meet the targets', 'makes me feel like machine or robot', 'rules are made by the owner and we are pushed to obey', 'company is too demanding [even when we have] good results', 'procedures are always changing and this makes us confused', and [I must] 'follow and obey the rule which is already settled in the factory'.

This language lends support to the idea from the managers that was based on control of the process of change and control over employee problem-solving behaviors. These employees' perceptions demonstrate the fragmentation between managers and line-level workers. For those who experienced fragmentation, they felt as though they were being controlled, that they had to follow rules, and that they were tired. It seems that context in which the Lean ideology was presented to them was through a lens of fragmentation and control. These employees interpreted that the behavior on the part of the owner and the managers was harmful to them and failed to take their perspective into account. They did not feel valued, despite the assumptions and explicit behaviors on the part of the owner and the managers that demonstrates that these people were valued. These workers were less likely to engage in autonomous problem-solving, and were less likely to engage in open conversations about problems on the line with their managers.

This reaction seems to be rooted in the cultural landscape. Many of the line-level workers seemed unsure of how to answer questions when approached by members of management, potentially due to issues of power distance. The line workers often seemed to be searching for the 'right' answer, as opposed to sharing the reality of the situation; due in part to their expectations that the leaders already knew the answers to the questions they were asking.

Lean as an opportunity

Despite the fact that many line-level employees identified that they felt Lean was being imposed on them, other line-level employees demonstrated a high level of satisfaction for certain aspects of the Lean journey. 'I'm happy', [gained] 'much knowledge and experience', 'sometimes enthusiastic', 'so excited for the challenges', 'dynamic and interesting to help workers solve problems', and 'passion and vision makes me happy'. These positive reactions tended to be focused on the fact that the owner respected their input, that they were salaried instead of paid by piece, and that there was a respect for personal values and beliefs (i.e. freedom to express and follow religious beliefs).

Many line-level employees were excited to share their successes, especially when they came up with ideas for solving a problem. These employees were more engaged in their daily work. Their language demonstrated that they felt valued, and that they perceived the Lean ideology as aligned with their personal development goals. They felt respected for their contributions to the factory output. These employees seemed to demonstrate an alignment between personal values and Lean values, and additionally, they were more likely to recognize or mention the relationships to other people in the organization as well as demonstrating a respect toward focusing their work on addressing the desires of the customer. These workers saw the process and they knew how their individual aspects of work contributed to the whole.

These line workers were more likely to engage in autonomous problem-solving. They seemed more comfortable in answering questions from management and were more forward in sharing their problems and experiences. Some of these employees were involved in the specific action learning group with whom I worked.

There are certainly differing explanations for why these line-level employees had varying reactions to the action learning process. Individual differences in personality or preference for learning certainly could have played a role. Individual differences in the managers to whom they were reporting might have created different experiences. But it was my experience with the action learning group that suggested to me it is possible to overcome some of these individual differences in preferences for learning with a structured learning process and open inquiry in a trusting environment.

The action learning group

After spending a couple of weeks observing processes and meeting people inside the factory, I began to work explicitly with a group of people in an action learning set. The group, composed of six people, was selected by one of the middle-level managers. In our first meeting, I invited everyone to introduce themselves and to explain their role. Then we began to talk very broadly about what types of problems they were facing on the line. There was a palpable sense of distance between us – respectful, but not necessarily open. One of the line employees said perhaps three words, and stared at the floor during the meeting. After the meeting I asked the manager if this group had the potential to become engaged and she assured me that they did. While I was certainly up to the challenge, I had my doubts – based largely on the very clear cultural and hierarchical differences that seemed to exist among us. I knew that I had to attempt to break through the high power distance culture, which was difficult to do with a language barrier also in place.

Action learning group meetings – the process

In order to begin to break down these barriers so that our problem-solving meetings would be more effective, I spent time observing the workers on the line and asking questions (sometimes in my broken Bahasa and other times through a translator). I was careful not to infuse my own ideas – largely because I did not have any. The fact that this environment was entirely new to me allowed me to ask truly curious and open-ended questions about their processes.

We met each afternoon, right before the end of the workday, around four o'clock in the afternoon. In our early meetings, I facilitated individual and group reflection by having them identify what experiments had worked well for them that day and what experiments had not worked well. Each person contributed to the conversation (many hesitantly). For each item that 'had not worked', we identified this as a problem to be solved and they would generate a new experiment that they could run the next day to close the gap.

Action learning group meetings – enhancing the process

This process of reflection started to become monotonous and I noticed that the same problems were coming up again and again – meaning that the employees were not actually closing the gaps on the problems they identified. I turned to my own Lean action learning coach for suggestions, and he proposed a more structured reflection process. So we created documents for each worker, and myself, that we kept up on the wall on our 'Obeya room' (a large office in which we kept all of our visual documentation of our learning and problem-solving process). An example of the document can be seen in [Figure 1](#). This problem-solving document included a space for identifying the immediate goals and target goals, the problem owner, the support team, the current state, notes on the experiments to run, and lessons learned.

Action learning group meetings – reflections

Over time, the employees went from speaking little about what was occurring in their work to taking up the whole meeting time (and sometimes more) in describing their problems and how they had tried to fix them. The employee I had identified in the first meeting who spoke only a few words and looked at the floor during the meeting became the most vocal of the group – excited to share her findings from her experiments and updating her problem-solving document to reflect her progress. By instilling this structure into the action learning process, we were not only able to be more mindful of which problems were being addressed and which experiments were being run, but it also served a purpose in breaking down some of the emotional and cultural barriers. The structured problem-solving made the process very clear to the workers and over a short period of time, they began to come into the meetings confident and aware of what we were going to discuss that day. It also meant that the translator (also the manager) could work directly with the workers to answer all of the issues on the document without constant interruption from me (the facilitator). The structured problem-solving documents were a part of the conversation, and helped to create a shared language, even in the face of different languages being spoken.

In addition to the structure of the problem-solving documents and the regular meetings, my lack of technical knowledge allowed me to ask questions that created space for reflection and learning. I drew on the work of Schein (2013) to engage in the practice of humble inquiry. Instead of asking confrontational questions (e.g. Why did you do that process this way?) or directional/probing questions (e.g. Don't you think it would be better if you tried this?) I was able to ask open-ended questions that required reflection and problem-solving on the part of the workers (e.g. What is going on in this situation?).

Standard Reflection Sheet

| |
|---------------|
| Goal: |
| Owner: |
| Targets: |
| Things to do: |
| Support: |

| | | |
|---------|--------|------|
| Actions | Status | Date |
|---------|--------|------|

| |
|-----------------|
| Lessons Learned |
|-----------------|

Figure 1. Standard reflection sheet.

There was no right answer for these questions, but rather space for the employees to share their experiences, frustrations, and successes.

Key learning points

In this final section, I discuss the key learning points from my experience inside this organization.

- Engaging line-level workers from a different cultural context in the process of action learning is fraught with challenges that are unique to this context. One of the most powerful tools at our disposal is the use of humble inquiry to facilitate discussion in the face of power distance. Humble inquiry reduces the perception of hierarchy, creating an open space for people to share their ideas – whether well developed or not. During my last week in the organization, some of the managers took me out to a celebratory dinner. One of them admitted to me ‘When you first came here – an American, a Lean expert, an MBA student – we thought we could never know as much as you and

that you were going to tell us what to do. But you weren't like that at all!' I believe that my ability to connect with them on a level in which I was not attempting to direct or control their thinking was vital in the ultimate engagement of the workers.

- The action learning process can be intimidating and a bit overwhelming, leading to disengagement. I saw a change in the reflection and learning process when I introduced a structured process. Having a clear set of issues to address and questions to answer made the action learning process more accessible to those who originally seemed too intimidated to engage with it. In addition to providing a consistent set of questions, which the employees could be thinking about while they were working, the structured reflection reduced the language barrier by giving us a shared method of communication.
- The owner of the factory had the best intentions, the highest appreciation for his employees, and the most respect for the action learning process of perhaps any leader I have ever encountered. But despite this, his role in this company sometimes seemed to get in the way of his goals for action learning. The employees respected him and perhaps even to some extent revered him. But having an outside facilitator provided a different dynamic to which the employees were able to respond.
- I learned a great deal about being a facilitator through the course of this work. I developed meaningful relationships with the employees in the action learning group. I have often been told that developing personal relationships with employees or clients can get in the way of the success of a business mission. However, after this experience, I firmly believe that it was the personal relationships I developed with these people that motivated our shared excitement toward engaging in action learning on the job.

Conclusion

In this account of practice, I have reflected on my time spent as an action learning facilitator in a unique, cross-cultural context. I learned the value of open-ended inquiry combined with structured problem-solving as a way to engage line-level and manager-level employees in the problem-solving process. But I also learned that structured reflection and humble inquiry are not a panacea – and the value of having a facilitator in these contexts, especially one who is disengaged enough from the work to ask truly curious questions, can be quite helpful. Broadly speaking, my account supports the idea that action learning can have value in contexts quite unique from large corporations with educated high-level leaders dealing with complex problems. The value in action learning is that it has the potential to break through boundaries that stand in the way of learning and reflection in a variety of contexts.

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Disclosure statement

No potential conflict of interest was reported by the author.

Notes on contributor

Elizabeth A. Luckman is a PhD candidate at the Olin School of Business at Washington University in St. Louis. She has worked with the principles of action learning throughout her career; first in luxury retail management and now in academia. Her research interests include leadership and mentorship, complex negotiations, and management education.

References

- Deming, W. Edwards. 1986. *Out of the Crisis*. Cambridge: Massachusetts Institute of Technology, Center for Advanced Engineering Study, 510.
- Hofstede, Geert. 1980. "Culture and Organizations." *International Studies of Management & Organization* 10 (4): 15–41.
- Liker, Jeffrey K. 2004. *The Toyota Way*. New York: McGraw-Hill.
- Revans, Reginald William. 1980. *Action Learning: New Techniques for Management*. London: Blond and Briggs.
- Schein, Edgar H. 2013. *Humble Inquiry: The Gentle Art of Asking Instead of Telling*. 1st ed. San Francisco, CA: Berrett-Koehler.
- Seddon, John, and Simon Caulkin. 2007. "Systems Thinking, Lean Production and Action Learning." *Action Learning: Research and Practice* 4 (1): 9–24. doi:10.1080/14767330701231438
- Womack, James P., Daniel T. Jones, and Daniel Roos. 1990. *The Machine That Changed the World*. New York: Simon and Schuster.