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## "We're Different" Applying Lean to Knowledge Work

Dear Drew,

For nearly thirty years now, I have been applying and teaching the application of Enterprise Excellence concepts to a wide variety of business environments. In fact, my earliest applications were to the information processes in aerospace businesses within GE. Building satellites and other near 'one-off' type products taught me how the information flow drives the material flow. Without timely and accurate information, production would forever be 'under the gun' to meet project or program schedules. Of course this meant dealing with engineers and office professionals of various titles. It is also where I first encountered the arguments of "we're different", "you cannot apply process improvement techniques to 'creative work'", "everything we do varies", and similar statements. The fact of the matter is knowledge work and knowledge workers are different, but that doesn't mean we cannot apply process improvement concepts to such work. It does mean that we often have to adapt the concepts and approach to do so. Perhaps you too are encountering similar resistance as you bring 'lean' off the shop floor and apply to office and service environments. Or perhaps you never had a 'shop floor' to begin with, but are encountering similar statements and could use a bit more insight and counterarguments to the more common ones. So here goes.

### *The Needs of Knowledge Workers*

I once read somewhere that knowledge workers have three needs:

1. A sense of purpose
2. A sense of mastery

### 3. A sense of autonomy

Frankly, it can be argued that these apply to all people regardless of the type of work they are engaged in, but at different levels. There is a much stronger need of each of these for knowledge workers, particularly the latter two. Knowledge workers feel great pride in the mastery that they have achieved in performing their roles and fulfilling their responsibilities in the current process. Lean and continuous improvement in general are viewed as an affront to the existing sense of mastery with the current process. "Don't you think that if there was a better way I would have figured it out by now?"

Standardized work, a foundation of Lean, is often viewed as taking away the autonomy of the individual - the sense of freedom or independence, as of his or her will or one's actions. "Why do you care how I do it as long as I get the work done?" This need is particularly strong in western cultures.

Clearly we have some significant hurdles to overcome in order to engage knowledge workers in Lean efforts. These needs cannot be glossed over. The likelihood of disengagement is great, and if strong enough...well great knowledge and experience can walk out the door and be forever lost to the organization. Not to say we can get everyone 'on the train', but the fewer we lose on the journey the better don't you think?

### *Provide Purpose to Get Started*

This is where the first need, a sense of purpose, is so important. We must give people a valid and compelling reason to change. Leaders need to provide a challenge to knowledge workers. "Our competitors are getting new products to market 25% faster than we are. We need to reduce our time to market by 50%". People tend to rally around challenges, particularly when they are based on reality. Or perhaps leaders can demonstrate the negative impact of current practices on customer service, organizational performance, quality, etc. People are often unaware of the existence or magnitude of such impact. For example, I was working with an organization to improve their quote process. As is often the case, longer service-time individuals were involved in this process, drawing on their experience to estimate material and labor cost in order to develop a quoted price that would be provided to the customer (with the hope that the company would win the business in the near future). A suggestion was made to give three different estimators the same request for quote and see what happens. The results were very interesting as each calculated a significantly different price. Not much needed to be said as their individual and collective pride 'kicked in' and the three began to delve into the source of the variation properly motivated to improve the

process.

Another such example involved an insurance adjustor process. All of the adjustors used the same computer based tool so how much variation could there be? The answer? Significant. It depended on the questions that were asked (or not). They varied based on the experience of the adjustor. The responses to those questions determined the inputs to the computer based system. Experience is a good thing, but it varies by person. And experience that is not adequately shared with others is a missed opportunity indeed. People want to do the best job that they can, and typically believe that they are already doing that. The group of adjustors learned that there could be a better way, and as a result were properly motivated to improve their process.

Leaders need to find that sense of purpose that resonates with knowledge workers, but that is just to get started.

### *A New Sense of Autonomy*

The sense of autonomy in performing his or her role as a knowledge worker, needs to be supplemented by being involved in the changes to the particular activities for the purpose of improving them. Knowledge workers have the freedom to improve the activities in ways that they believe are best. However, they must do so as a collaborative effort with others performing the same work, as well as suppliers (internal and external) and customers (internal and external). These 'conditions' can feel like a loss of individual autonomy, and will need to be coached accordingly. However, in general, most knowledge workers can make the transition from individual autonomy to group autonomy. It just makes sense.

Another bit of advice involves the subject of standardized work. It is imperative that standardization only happens where it matters. Knowledge workers will quickly challenge standards that do not affect the performance or the outcomes of the process. In lean terms, standardization on how a process is to be performed should only be made when it rises to the level of a 'key point'. Key points involve quality (if the process is not performed a certain way, the quality of the outcome will be unacceptable), safety (people can be injured), and efficiency (specific 'knacks', 'tricks' and the like that make it easier to do the work). If there is no quality, safety or efficiency reason to perform a process or step in a process in a particular way, then it is not necessary to standardize it. This continues to provide knowledge workers with some autonomy in how they perform a process. With the compelling reasons that accompany each key point, people can better accept the standards that are required.

## *Regaining Mastery*

When changes are made, there will be a period of discomfort for the people affected. In fact process performance may be negatively impacted for a period of time until the changes become habit. Knowledge workers will quickly point this out as a reason to return to old ways. Leaders must stay the course while being supportive as people become more and more comfortable with the new process, and thereby regain their sense of mastery. Time is required. How much time will depend on the nature of the changes. Are the changes affecting the 'value adding' decision processes that knowledge workers perform, or non-value added activities that those same folks must also do? Even changes that affect the latter can give rise to the aforementioned discomfort, but that discomfort tends to be shorter lived. In any case, facts must be gathered from the new process as part of the 'Check' of 'Plan-Do-Check-Act (PDCA)'. This information must be shared with the people affected. Assuming positive outcomes, that information will reinforce the new behaviors and help people regain a sense of mastery sooner.

## *There is Always a Process*

Finally, a key to all of this is to get knowledge workers to see that there is a process to what they do. This is not always obvious to them. "Everything we do is different." The outcome can indeed vary, but there is a process to create the outcome. Often the process is a decision process. It is important to recognize that process and identify opportunities to improve it. Process and system thinking is key to lean thinking. When problems arise, they cannot be explained away as 'a natural part of a highly variable process'. Deeper reflection is needed. What is interesting is that many knowledge workers are involved in a form of problem solving. Whether it be an engineer designing a solution to a market problem in the form of a new product or service, or a technical support person helping a customer solve a problem with their computer, or any other example you can think of (the previous quote and adjustor examples come to mind). However, solving process related problems seems to be challenge. I often ask, "what similar issues have we seen that might be indicative of systemic causes that can be addressed and future recurrence prevented?" Too often the response is a form of "this has never happened before." Taking the time to really reflect on where the decision process went awry, without affixing blame to the individual is not easy but necessary. With sufficient practice in root cause

analysis, knowledge workers can begin to develop their process thinking, and their ability to improve their processes.

## *Summary*

Acknowledging that the nature of knowledge work is different, and that the approach to lean must be adapted accordingly can greatly help to defuse some of the initial resistance encountered in such environments. Attending to the three needs of knowledge workers throughout the lean transformation will also help gain greater acceptance. For more information on the application of lean to knowledge work found in office and service environments, consider these two resources: "[The Complete Lean Enterprise: Value Stream Mapping for Office and Services](#)"; "[Lean Office & Service Simplified: The Definitive How-to Guide](#)".

Best Regards

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