

Darrell: Hello and welcome to the Washington State government, Lean for Dummies, book review. I'm Darrell Damron and I'm glad you joined us today. Each week we review one chapter of the book and on our current schedule, we will finish this book on May 29.

As you can see on the schedule, we are fortunate to have a special guest joining us each week. This week, our special guest is Earl Murman. Let me hit the highlights to introduce Dr. Murman who received his PhD from Princeton and in addition to 26 years in academia, he worked at the Boeing Co. and NASA's Research Center. A group of about 70 US and international universities that collaborate on Lean education. He was the co-director of the Lean Academy course which has now been taught over 54 times to academic and professional audiences throughout the US as well as Latin America. He is also the author of the book, Lean Enterprise Value, [inaudible]. He is a Washingtonian and he and his wife live in Port Townsend. He has been part of the partnership program since last summer and I have to say it has been such a privilege to learn from you over this past year and I want to thank you for inviting our state government on this journey and thank you for being with us today as we take a look at another chapter in the Lean for Dummies book.

Earl: Thank you for inviting me back for a second week. I enjoyed last week and I look forward to the interaction with the participants this week.

Darrell: Great. A reminder for everyone, we record the sessions and post the recordings on the website. Also, the Prezi is available online 24/7 so you can watch the recorded session or you can navigate the Prezi on your own if you want to review materials. This shows the new look up at our website where we have added the name of chapters for each of the recorded sessions. For those of you looking for a particular chapter but can't remember the number, we added those labels for you more quickly find that. Thank you for the suggestion from our customers that made that suggestion. The purpose of the book review is to help you understand more about Lean so you are ready to actively participate in Lean activities going on in your agency. I always include the tips for helping you get the most out of the session that you can. During the session, everyone will be on mute to prevent background noise. Use the chat feature if you have a question and select, everyone, in the drop down so all facilitators and special guest each week can see the question that you send in. If you haven't already, please answer the poll questions. The city where you are in right now and the amount of people at your location. It's amazing that we have 600 state employees throughout the state of Washington involved in this book review in one way or another. It's fantastic. If you want to review the course objectives, or learning objectives for this weekly book review, they are included in the Prezi. I'm going to get us to the view that starts as for the content for this week.

Lean across Industries. This whole chapter is about Lean manufacturing and service and transactional type work healthcare, government and retail. Let's get to the key point here. The chapter starts off with the main point, Lean applies to every industry. It does not matter if you work in a large organization, public or private sector, it doesn't matter whether you are in manufacturing, logistics, banking, healthcare or even government. Organizations in every industry can benefit and have benefited from applying Lean. Earl, does this ring true in your experience or interactions with others that have been on the Lean journey you've talked to?

Earl: A couple comments Darrell. As you mentioned, I have been teaching this course Lean Academy and I'm always amazed at the breadth of the audience that shows up. Recently I was in teaching in Santiago, and we had construction, mining, food preparation processing. Before that we had somebody from flower productions in Bogotá. The basic principles are applicable, it seems like industries where industries interpreted in the broad sense even including nonprofit. I would like to add there have been very early adopters applying Lean to the educational process. Darrell and I were in a meeting last year together where we heard it [inaudible] from the commissioner of education from the state of Kentucky talking about applying Lean at the state level for K-12 classroom teacher who talked about applying Lean in the classroom. Even a school in Indiana who applied Lean to operations to reduce the cost of operations across the school system. I really think the title of the chapter is true.

Darrell: Fantastic. For all these industries to be able to deliver better value to their customers and undoubtedly the idea of Lean gaining traction and governments around the world and certainly across our country and absolutely, and Washington State government. Let's go on to the next slide. Lean principles apply to organizations in every industry because every organization needs to understand what customers want and need. So they can satisfy them. Every organization needs to understand where their mistakes and challenges are so they can overcome those. They need to map their processes so they can clearly understand how information and material flows. They need to understand the pace of customer demand so they can work at a pace that meets that demand. They need to set clear goals and objectives so everyone can work in alignment with those goals. They need to leverage the wisdom of their own employees because employees have great ideas for delighting their customers. Every organization needs to look at their own processes getting rid of waste that overburdened the employees and create variation and bog down their processes with ways. They need their employees to practice that [inaudible] cycle and work toward daily improvements. Every organization needs to keep the work environment organized and clean and safe and they need their employees to select their right-thinking and tools for the job at hand in front of

them. The real point for each of you personally here is that when you embrace the idea that every organization no matter what industry it is, every organization can use of Lean thinking to improve. When you embrace that it puts you in the right mindset to translate to your own work the application of Lean you see in other industries. When you go on a tour of a manufacturing site, just having this openness to the mentality that Lean applies everywhere helps you to translate and make the connection. Earll, any comments here?

Earll: I see [inaudible] made a comment about applying the Lean process to the book itself. Let me say Don, Darrell mentioned were you taught this course is Lean Academy 54 times. We've done seven versions of it and we are maybe going to do an eighth and it's very much the Lean process. As mentioned in this light. After every offering of the course, we sit down and look at what the data says that what we can do better and we continue to change it. So I think Lean should be applied to the book and it has helped us in developing the course. Once people see this for the first time, these things are common in every business, it may not resonate because they may think they're business is different than the businesses used in the illustrations and examples given. What I found so interesting in teaching the subject is, our basic three-day curriculum has connected with all audiences so I was really quite surprised from college students to seasoned professionals from different industries. Sometimes they ask for examples more relevant to their industry but the basic principles when they sit down and absorb them and reflect on them, they find that even though it came from industry different from theirs they can see how it applies to them. So I think this is true that this applies to every business in the business has to take them and internalize them and tailor them. But the basic concepts are pretty fundamental.

Darrell: To Don's point about applying and finding errors in the book, we are actually working with our partners from [inaudible] who publish this book. As we review each chapter and find the typos, we are keeping a list and sharing that list of opportunities to improve with the editor. This is the second edition of the Lean for Dummies book and they are open to fixing that. Good point. Also a good point of paying attention and working together when you find errors work towards fixing them and help people understand they are clear. The rest of the points in this chapter make the point that Lean and manufacturing service healthcare and government. In today's session, we plan to go through the key point about how Lean applies to manufacturing first and healthcare and then we will invite you to respond to questions we have for you of that Lean in government at the end of. That is the format. We will leave more time at the end to give you a chance to respond to questions I will put on the screen. To slide number four, Lean in manufacturing. In a mass production era, typical manufacturing operations made large batches of parts that stacked up in queues. As they move through the production process. The Toyota production system abandoned that and work toward a single piece flow and some of the things that help them achieve that flow included organizing their work and working to build quality into each activity rather than inspecting everything at the end of. And standardizing their work. They also reduced inventory and this helped them find waste in their processes. Rather than pushing parts through the system based on forecasting what might be needed, they embrace the consumption driven replenishment system. The idea of pull rather than push uses principles like [inaudible] and just-in-time delivery to think of production with consumption. It is the consumption of a product that starts activities to produce a new product. When a customer takes one then the next one is being built by the production system. These Lean manufacturing principles have been proven effective in manufacturing around the world for many years now. Earll, anything you want to add to the manufacturing point?

Earll: This may be an opportunity to address Pat's question about risk, I understand it's about another reference to risk camera talk about this? I think the question is about risk not so much inventory. I can only say that in any organization you have to manage risks. Usually, you don't want to work at one end or the other of the options so in inventory it would be unlikely you would want to have zero inventory just like you would not want to have most inventory. It depends on your particular business and your particular supplier but whatever it is you have to make risk explicit, visible and then manage it and there are techniques for doing that. They are used in the aerospace industry, a red, yellow, green stoplight visible way of tracking risk and managing it. I don't know that's the answer to your question, you are welcome to contact me by e-mail. Back to the slide itself, to reiterate what you already talked about in this book review course, in applying it to manufacturing it's not just fabrication and assembly. Is to the manufacturing enterprise. Is to the front office activities, finance and HR to sales and product development. So Lean applies to manufacturing industries much broader than assembly.

Darrell: Absolutely. Let's look at the next point, Lean is used in service industries, as well. One way to think about it is to look at a service like a product and manufacturing. Service starts with a customer's want or need and goes through a process to create that service and ends with delivering what the customer wanted or needed. The service is designed, developed and delivered just like a car or plane would be designed and developed in a manufacturing setting. Sometimes it helps to think of it that way and see service as a product. The seven forms of waste are seen in processes that produce services just like they are seen in manufacturing. Transportation, waiting, overproduction, defects, inventory, movement and extra processing happen in service as well and by mapping it and keeping an eye toward that you can reduce waste in service processing. Additionally, the 5S in service apply as well. It's not just for manufacturing floor. I put the table in the slide to give you a better idea about what it looks like in services. The first is organizing the materials and that includes electronic files. Straightening is arranging things consistently so they are easy to access not only for one worker but for workers who do the same type of work and a common area. The third is maintaining everything and keeping things neat and clean and in the arranged order. Systematize is regularly maintaining everything look in your own work area as well as

the common work area. Standardizes making that maintenance a discipline that the organization pursues. Don't overdo it, just do it. I like that that the book had that. Don't overdo it, just do it. You can turn this into a giant overdone, with people wearing badges and caring clipboards but that is missing the point. Anything Earll, before we move to the next point?

Earll: Darrell and I were talking earlier in the week and he asked me to think of an example of Lean in the service area and the one I came up with is based on personal experience. Working with the Chamber of Commerce and economic development commission of Jefferson County, we taught a one-day workshop on the basic fundamentals of Lean to an audience of 30 people last October. One of the groups was our local newspaper. I was surprised about a month later to drop into the newspaper and find out the next week they had taken what they learned in the course and applied these principles to how they handled ad in the paper and do copy edits. They had done all of this, they got the employees together, they mapped the value stream, they looked at the waste. They envisioned a future state and implemented it and we're were thrilled with the outcome. There is a service application that was simple and direct translation of these principles.

Darrell: That the great illustration and it speaks to the idea that you don't have to go off to college to get an advanced degree to apply this thinking to the work you do.

Earll: Something like that. You can do it easily if you start trying to change big organization where you have multiple pockets like that, it will take more coordination but in your own work area where you have control, and willing management, you can start using these things and these principles pretty easily.

Darrell: The next key point is Lean in healthcare. Lean is being used in healthcare to reduce mistakes and wait times and costs. As well as improve patient education and clinical outcomes. The productivity of the staff and hospital settings. And employee satisfaction as well. Earll, do you want to share experiences with a Lean in the healthcare industry?

Earll: I have been involved since I retired and moved to Port Townsend with how these principles apply in healthcare because our local hospital use them effectively in Jefferson County. The example I came up with after we talked on Monday was one I heard at a meeting a year and a half ago. The meeting with the presenter was the vice president of engineering at Intel in Oregon. She talked about how they took a cooperative approach to improve the way their employees were treated for back pain. They have employees with lower back pain and they were taking a couple months for when they first reported they needed medical help till they actually got first treatment. Drawing on expertise from [inaudible] medical Center, we put them get together with their insurers and their providers. I can't remember if it was one or two hospitals and they worked out and looked at their value stream and worked out where the wait time was and all the handoffs. They took some time for them all to agree to work together but when they finished they were able to reduce the time from several months to one-day that it took for the employees to get treatment for lower back pain. The amount of money Intel saved and the improvement in the patient's life and the streamlining of the insurance cost was a win-win situation. There is an example that involves healthcare, insurance company which has some of the same operational guidelines. In the end, that customer, patient was treated quickly and everybody was happy.

Darrell: Huge savings that has a huge impact on real people's lives. That leads us to our next key point, Lean in government. When we apply Lean in government obviously governments reason for being here in Washington State is to deliver value to Washingtonians. By shortening cycle times and improving the quality of things we do, increasing our own productivity and how we use our resources. And increasing satisfaction with the government can get rid of waste everywhere. What I would like to do here with the rest of our time is invite you the participants on the call today to use the chat feature to respond to these two questions I have in the Prezi. What reservations or concerns have you heard about whether or not Lean applies in your work area? This question is getting at, what are the concerns you hear when people think Lean does not apply to you, do you hear that? The second question is, what reservations or concerns have you heard about how individuals can learn about and start applying Lean? On the one hand, it is fairly simple because you can start using it in your own work area. On the other hand, it is more complex and requires coordination when you're trying to fix the entire state government. We would invite you now to use the chat feature and those of you facilitating conference room groups, you can use whichever method you like to submit your question from the room. Use the chat feature to do that. I will ask Earll and Heidi to watch if we can pull up some questions or responses you may have related to this.

Earll: Let me first thank Don for his contribution about the Utah State billboards. That is the fundamental principle. Make everything visible like that. That's great. We got something from the CTS staff. How to get folks that are used to a particular approach to think about a new approach? The biggest challenge in applying Lean it's not the principles it is getting the work force to think about how to do things differently. That is not a question where you have a one line answer. The best way is to involve those people and have them try to improve something so they can actually see that it works for them. I don't think any number of books or lectures were testimonials are going to change anybody's mind until they try to apply it

and with the help of a facilitator or coach and work it through and learn about it by doing it. I would say try to get those people together and give it a try. They may be resistant at first, but the only way to overcome it is to try it.

Darrell: Lets go to another one. There was a comment that people need relevant work examples. That's absolutely true. The more folks we have in state government using Lean thinking and applying the tools and creating those examples the more opportunity we have to share. There's an opportunity for everyone to share experiences through our Lean practitioner which is open statewide to everyone from novice to expert. We hold a face-to-face meeting on the second Monday of every month in the Olympia area and this book review is part of trying to reach the webinar format reach folks from other heart of the state. I think it's a great point, people do need relevant examples from our work in Washington state government. Let's look for the next question. Or comment.

Earll: I will take one from Karen. You have a classic problem. The upper management is not behind it and Darrell, this is a challenge to try to get upper management better educated and behind it. If upper management is not behind it, it won't work. You have to address that problem.

Darrell: Absolutely. That is a great observation. I can tell you that in this moment in history, Washington state government has survived the transition from [inaudible] and not lost the importance of this concept that Washington state government can use Lean thinking and tools to improve and deliver value to Washingtonians. I can tell you Gov. Hensley and his executive staff, and all the folks on the executive staff are paying attention to applying Lean and working together, there were meetings today where they were talking about Lean and performance measures and setting targets. I think what you will see throughout state government over the coming months and even years, is that it will cascade throughout our government. Managers that are only paying lip service but not performing will be called on that and expect it to act differently.

Earll: This is Earll, you have a comment that something could come down the chain from an executive Cabinet agency leader of the Government, Lean has gone out the window. I'm not sure what that is but there has to be a consistent message on that.

Darrell: That's pretty easy to see how that could be construed that way. We have actually transitioned how we pay attention to performance measures and the agency and how the Gov. meets with directors and their staff to talk about agency performance measures. On the one hand, a nomenclature change a reference to [inaudible] is being changed and the reference results at Washington. Part of that is a name change but even more deeply is a little bit different approach and how the governor interacts with the agency directors on a performance measures. But it's clearly not that paying attention to performance measures were taking Lean has gone out the window is opposite of that. I can tell you certainly as I said over the last few days, the executive leaders as well as the governor have been in meetings about how Gov. Hensley's administration is moving forward with performance measures and Lean. The term you hear in Washington state government now is results Washington but it absolutely has not gone out the window.

Earll: [inaudible]

Darrell: We appreciate all of the questions that came in. We are out of time for today. I will capture these questions and take a look and think about how best to respond. And Earll, I appreciate you making yourself available and for your help. To our state government as well as today on the webinar. We have to close it off for today. Earll, any final advice for our listeners?

Earll: Thank you for including me. I would be happy to help respond on these questions. They are great questions and I don't know if you can keep them coming in but let's try to respond to them.

Darrell: Excellent. Thank you all for your participation today and we will see you next week when we look at the next chapter.