

## Agile/Lean Workshop July 28<sup>th</sup> - 29<sup>th</sup>, 2021

https://gssolutionsgroup.com/supplements/

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# **Greg Smith**

### Agile Coach/Trainer



- Certified Scrum Master
- Certified Scrum Product Owner
- Certified Scrum Professional
- PMI-ACP®
- Certified Scaled Agile Framework (SAFe<sup>®</sup>) Consultant 4.5

- Customizing Agile and Lean for Individuals/Teams/Enterprises
- Since 2001, 100+ Agile transformations including Fortune 500, Government, and Startups
- Author, *Becoming Agile in an Imperfect World*



Training on: Scrum • Agile PMO • Scaled Agile • Product Management • User Stories • Portfolio Management • Lean • Kanban • Leadership • Change Management

# Who Are You?

What do you do?

Any areas you would like us to cover today?

# **Logistics and Expectations**

- Ask questions anytime I will limit them if the schedule gets tight
- Two breaks scheduled, more if needed
- Lunch around Noon for 30 minutes
- Wrap by 3 PM
- More focus on quality than quantity (*understanding* over getting through the deck)
- Use of Zoom Breakout Rooms





# Loose Workshop Outline – Day 1 – Lean & Kanban

### • 8:30 AM – Kick off

- Introductions
- Logistics and Tools
- Workshop Goals
- 9:00 AM Building Great Team
  - **Exercise:** Where Are We Today?
  - Example Team Agreements
  - Example Process for Creating an Agreement
  - A Few Tips for Being Remote
- 10:00 AM Break
- 10:15 AM Lean Fundamentals
  - The Birth of Lean
  - The Fundamentals
  - The Correlation to Kanban
- 11:00 AM Kanban Overview
  - Goals
  - Benefits
  - How it works
- 11:45 AM: Lunch

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- 12:15 PM Kanban in Detail
  - Visualize the workflow
  - Work In Progress Limits
    - Exercise: Making Name Tags
    - The Data from Jerry Weinberg
  - Manage Flow
  - Make Policies Explicit
  - Implement Feedback Loops
  - Improve the Process
- 2:00 PM Break
- 2:15 PM If Time Allows Improving
  - Root Cause Analysis
- 2:50 PM Final Questions
- 3:00 PM Workshop Ends

# Loose Workshop Outline – Day 2 – Agile/Scrum

- 8:30 AM Kick off
  - Review/questions from Day 1
- 9:00 AM Agile/Fundamentals
  - Quecreek Rescue
  - Agile Benefits
  - Exercise: How Agile is ETS Today?
- 9:30 AM Agile Long Term Planning
  - Overarching Process Flow Review
  - Review of Office Pro Plus Business Case
  - Exercise: Elevator Statements
  - Exercise: The Focus Matrix
- 10:00 AM Break
- 10:15 AM Finding Project Scope
  - Finding scope with story mapping
  - Simple user stories
  - Prioritizing Scope
  - Estimation and Release Planning
- Noon: Lunch

- 12:30 PM Delivering with Scrum
  - Detailed user stories
  - Sprint Planning
  - Refinement
  - Daily Standup
- 1:45 PM Break
  - Demos
  - Retrospective
  - Plan Adjustments
- 2:50 PM Final Questions
- 3:00 PM Workshop Ends

## **First Exercise – Where Are We Today?**



https://app.mural.co/t/gssolutionsgroup6576/m/gssolutionsgroup6576/1626824827176/e449f8ccde62adb04a123 1055f20c83ad75af9f4?sender=greg5934

7

# **Team Agreements**



## **Team Agreements - Examples**

## TEAM WORKING AGREEMENT

## CAPACITY

Team will capacity plan at the beginning of each sprint, working with a 5.5 hour/day capacity assumption.

### OBSERVE CEREMONIES

Always attend SCRUM ceremonies. Be on time. If you can't make it, use the slack channel to notify the team and provide updates.



#### **CORE HOURS**

Team will be generally available from 9:30-4:00 daily, in person or online.

### 

All work must go through the refinement and planning process. If something must come into a sprint in progress, the sprint must be reevaluated.



### CROSS FUNCTIONAL

Strive to be cross functional, always learning new skills and pairing with team members on tasks you're not as familiar with.



#### COMMITMENT

Make realistic commitments and be accountable for meeting them as a team.

### WORKSPACE

Be respectful of the team space. Keep the volume low and take disruptive conversations elsewhere.

# OPEN FEEDBACK

Team should be willing to provide and accept constructive criticism on methods, code, processes, etc



### TEAM EVENT

Team will participate in a group activity at least once a month. Day and place to be agreed upon by team.

#### FOCUS

Be focused during meetings and stay off devices unless there's an emergency.



Have a monthly lunch and learn. Calendar will be available on team Confluence space.



### RALLY

Update Rally daily. Make sure stories and tasks are in the correct state and comments are added where appropriate.

Daily Standup: 9:45AM in the Team Room

### Lucid Company Working Team Agreement

#### What we need to communicate to each other:

- Availability
- Bugs & Fixes
- Documents
- Calendar commitments: milestones, due dates, tasks
- Decisions made
- Work for review & feedback

#### How we will communicate, in order of preference:

- Slack
- Meetings via Lucid Meetings
- Fogbugz
- One-on-one: in person, phone/skype
- Documents in Dropbox
- Smartsheet
- Email: for informational or less urgent internal communication only.

#### When we communicate with each other, we expect an acknowledgement within:

- If it's really urgent, we'll tap someone on the shoulder, shout their name or call them!
- If you are "@notified" in Slack and ostensibly present, respond within 30 minutes.
- For "hey everyone" requests in Slack and by email, reply within one business day

#### We will know what tasks and projects are being worked on by:

- Updating each other at weekly meetings: full team and by functional group (marketing, dev, etc)
- Ad-hoc Slack updates
- Checking Fogbugz/Kiln for software development status and updates
- Checking Hubspot for marketing & sales coordination

#### We will aim to work during these hours (all times US Pacific):

- Generally, people should be online and working together between 11am and 3pm
- Most work can be done any time
- Big blocks of coordinated time should be planned in advance. As should big blocks of time away.
- Results matter more than time present on Slack.

#### We will provide each other feedback by:

- If it's sensitive or critical or important, we'll talk face to face or use video conferencing
- Otherwise, send feedback in Slack, during meetings, in Fogbuz, or by email as discussed above

## 1) Set the Stage

Introduce what a working agreement is, and how it can benefit a team:

## 2) Gather Data

Have each team member write down things that are most important to them in the working agreement. Maybe use Mural. See the next page:

# **Online Whiteboard – Brainstorm Ideas for the New Agreement**



### 3) Generate Insights

Discuss each item added by the team members and start grouping items which seem to relate to each other.

## 4) Decide What To Do

For each group, make sure that there are clear actions for each item where applicable.

## 5) Close (5 mins)

Summarize and close the meeting. Make sure someone has taken ownership of documenting the Working Agreement and placing it near your Scrum Board or in your Wiki, SharePoint, or other collab tool that you use.

## See Template Provided to Help with the Exercise

Working Agreement Canvas

scruminc.

1. Team Name 2. Team Motto Something cool Can we think of a catch phrase? 4. Roles & Responsibilities 3. Team Mission 5. Metrics Team: Product(s): Who is the PO? The SM? The other Team Why does this team exist? How does it align to What data will we collect to see if our products Members? Is there single accountability for what the business wants to achieve? specific things? Is there a back-up? are successful? if we are as a team? 6. Strengths & Skills 7. Gaps & Growth Opportunities 8. Celebrate & Improve What are we lacking? How will we become more How do we want to celebrate successes? Besides what we were hired to do, what else do cross-functional as a team? More T-shaped as How will we have fun together? we do well? What are our superpowers? individuals? How do we plan to learn from our failures? 10. Norms & Guidelines 11. Events 9. Values Sprint Length = Company Scrum Team SP: Openness DS: Courage SR: Focus Commitment What code of conduct do we want to have pertaining to: events, Retro: Respect decision making, communication, conflict resolution, workload, BLR: collaboration, and creating an environment where everyone feels Time? Place? Other Attendees? comfortable expressing their opinions without fear? Date: Version: © Scrum Inc. 2018

# **Remote Tips**



# **Agile Principles – Do They Still Work Remotely?**

- 1. Continuous value delivery to the customer
- 2. Welcome changing requirements and discovery
- 3. Deliver working software (or other) frequently
- 4. Business people and technology people work together
- 5. Give the team what they need to get the job done, and trust them to get the job done
- 6. Face to face is the best way to convey information

- 7. The primary measure of progress is working solutions
- 8. Whatever we are doing, it should be sustainable at the current pace, forever
- 9. We can be more Agile if we focus on technical excellence and good design
- 10. Keep things simple, we only do work when we know we have to do it (avoid waste)
- 11. The best work is done by a selforganizing team
- 12. The team should reflect on their processes, on a cadence, and look for ways to become more effective

## Our Not So New World – A Lot of Us Were Remote Already



## Our Not So New World – But a Lot of Us Were Remote Already



## What We Are Going to Lose

 Osmosis. Osmotic communication means that information flows into the background hearing of members of the team, so that they pick up relevant information as though by osmosis. This is normally accomplished by seating them in the same room.

• Richness of communication. It is harder to pick up body language and tone when speaking with others on a call.



## Methods for Compensating – More Set-up Work - Offline

- "No PowerPoints are used inside of Amazon," Bezos proudly declares. "Somebody for the meeting has prepared a six-page...narratively structured memo. It has real sentences, and topic sentences, and verbs, and nouns--it's not just bullet points."
- You do not need a 6 page narrative, but the template at the left might work

### **Meeting Topic:**

### Problem or item to be discussed:

### Author's thoughts on the problem or issue:

### **Desired output(s) of the meeting:**



## **Example Pre-Memo**

Meeting Topic: We are not completing our sprints.

**Problem or item to be discussed:** We are consistently coming up short on our sprint commitments. We discuss this issue in the retrospective, but I believe the retrospective is too short to really find the root causes and come up with effective corrective issues.

Author's thoughts on the problem or issue: In this meeting, I suggest we brainstorm all potential reasons for the issue, then evaluate them with a fishbone diagram, and then try to identify the ones that we think are the main root issues. Then we can design two or three ways to improve, and start testing to see if the improvements lead to complete sprints.

**Desired output(s) of the meeting:** An action plan and documented process improvements for getting to more complete sprints.

• Your "pre-memos" may be a bit longer, but the whole premise is to come in with a straw man and accelerate the meeting. And like Amazon, if attendees have not read the memo yet, start in silence and let them read.

## Break



# What is Lean?





# Japan at the End of World War II





# 1949: Enter Edwards Deming – Physicist, Engineer

MacArthur Frustrated



- Japanese Union of Scientists and Engineers (JUSE) invitation
- Trained hundreds of Japanese engineers and managers
- Personal consulting with Sony co-founder, Akio Marito
- Toyota applies the teachings



The improved quality combined with the lowered cost created new international demand for Japanese products.



# **1986: The New New Product Development Game**



Hirotaka Takeuchi and Ikujiro Nonaka focus on the cross-functional, continuous improvement **teams** at Toyota



• They believed that:

... short iterations - combined with these cross functional team dynamics.....

- facilitate a knowledge generation cycle that leads to innovation, faster time to market, and higher quality.

 The Toyota teams reminded them of the Scrummage ceremony in Rugby – thus "Scrum" is born





# 1993: The Start of the "Agile" That Most of Us Know



The Definitive Guide to Scrum: The Rules of the Game

November 2017



Developed and sustained by Scrum creators: Ken Schwaber and Jeff Sutherland



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# What Principles Did Deming and Toyota Focus On?

- 1. Eliminate waste
- 2. Create knowledge
- 3. Build-in quality
- 4. Defer commitment
- 5. Optimize the whole
- 6. Deliver fast
- 7. Respect people





## It Is 79 Years Later – How Are The Toyota Principle Holding Up?





# In Simplest Terms



Deliver the highest quality products,

# with the shortest possible lead time,

and the lowest possible cost.



# **Kanban Supports the Lean Principles**

- Transparency/visibility of all work
- Better understanding of whole process
- Improved communication and coordination
- Shorter processing time
- Higher quality
- Lower costs due to improved efficiency
- Better Morale
- Exposure of problem areas
- Happier customers





# **Important Note on Lean and Kanban**

- Lean is more of a process improvement system than a specific process or framework
- I don't tell you how to do it, I show you how to do, what you already do, *better*





## Kanban in the Real World





## Have You Been to a Subway?

- The line of customers is our worklist
- For prioritization: First In = First Out
- Team Members work on an item *when they get time*
- Everyone works independently
- The sandwiches go through states: Take Order | Add Meat | Toast | Add Toppings | Ring Up Order
- <u>Sandwiches are not worked in batches</u>
- We remove the focus from our station throughput, to delivering the sandwich(s) in progress





## Subway's Process is an Example of Kanban



Take Order | Add Meat | Toast | Add Toppings | Ring Up Order

- The team works on a sandwich when they get time
- You could say they "pull their work". The customer does not tell them when to start
- "Pull" could be defined as "I finish what I am working on and disregard new requests until this work item is complete"



## The Main Thought:

### **Customers Get Zero Value Until We Put the Sandwich in Their Hands**

Take Order | Add Meat | Toast | Add Toppings | Ring Up Order






# Lean and Kanban: Stop Starting and Start Finishing

• Take no pride in how much work you are doing (Work In Progress)

• Put all of your pride into what is actually delivered





### Where Does Kanban Shine?

- When team members cannot be dedicated
- When work can usually be done independently
- On production support work
- On low priority work
- On urgent work that cannot wait for a sprint
- On teams without Agile/Scrum training
- On work that is not time-boxed
- When you are trying to improve



#### I do not know of any situation where you could not use Kanban



### Kanban in More Detail





#### **Kanban Core Practices**

# 1. Visualize

- 2. Limit Work-in-Progress
- 3. Manage Flow
- 4. Make Policies Explicit
- 5. Implement Feedback Loops
- 6. Improve Collaboratively, Evolve Experimentally



# 1) Visualize the Workflow

- Expose all work
- Even the secret stuff
- Show the states the work goes through
- Value Stream Mapping usually works well here (we will do mapping later)

Value Stream for a Project with Remote Testers and Customers: How long does it take to finish a feature?





# 1) Visualize the Workflow

 Once you know the flow, you can create a wall that shows the states

• Then you can use cards to show the current work in each state





#### **Let's Define Your Flow**

Let's go to Mural and do the flow/states for tickets





# 2) Limit Work in Progress (WIP)

 Each state has a level of work limits that ensure fastest possible processing time

 There is a maximum amount of work that should be in each state, else productivity goes down due to multitasking





#### **WIP Demonstration**





#### Exercise

- How long does it take to write a name on a card?
- Then how long would it take to write 5 names?
- What factors influence how long it takes?



#### **Teams for the Exercise**

#### Group 1 - Sarah, Paula, Connie, Kyle, Brandon H

# **Group 2** - Rocky, Rachel, Mike, Ben, Erica (if Lisa Fretts Joins)

#### Group 3 - Robin, Lesa, Bipin, Craig, Brandon A



#### Let's check your estimates by doing a simulation





# The Math



- Sometimes you have to do things in parallel
- But when you don't have to, and you do, you are lowering your throughput
- This is not a big deal when the work changes are contextual, with the same goal, like under the same Feature/Epic
- But much more impact with total context switching (going from the Windows 8 project to an Xbox Project)



#### **Setting WIP Limits**

• WIP Limit too High = Idle Tasks

• WIP Limit too Low = Idle Workers

• Let's go back to Subway and review







#### How to Get Started on WIP Limits

- 1. Identify your current WIP amounts
- 2. Double those numbers and use them to start
- 3. Go down 20 to 30% every week or so
- 4. Keep doing it until you start experiencing problems **queues of work** or **idle people**



#### Break





# 3) Manage Flow

- Track your work
- Understand Lead Time
- Understand Cycle Time
- Understand where the work is getting stuck
- Pursue load balancing (smoothness)





### Our Goal is to Reduce Lead Time and Cycle Time

**Lead time** measures the **time** elapsed **between** order and delivery, thus it measures your production process from your customer's perspective.

**Cycle time** starts when the actual work begins on the unit and ends when it is ready for delivery.





# Value Stream Mapping to Reduce Cycle Time

Value Stream for a Project with Remote Testers and Customers: How long does it take to finish a feature?



Let's go to Mural and do an example of how you got to this workshop today



### Value Stream Mapping Steps - Review

- 1. Determine what you want to analyze
- 2. Document the current process (a value stream map) and record steps, and general flow
- 3. Review the flow to find blockers, constraints, bottlenecks, delays, rework, and other waste.
- 4. Create a new flow diagram of desired or perfect world state., with delays and waste removed.
- 5. Create a roadmap or migration plan for moving to the desired state.
- 6. Rinse repeat: keep coming back and look for ways to improve the flow.



# 4) Make Policies Explicit

Remove assumptions about how the work is done

"Policy" Examples:

- WIP Limits
- You've received a new ticket. What do you need to do to make it ready to be worked on?
- You run into an impediment/blocker. Who needs to know? How are you going to seek resolution? While you're waiting, do you start new work or not?
- Someone in I.T. comes rushing over with a "critical" new ticket. What's your policy for prioritizing new work?





# **Exit Criteria is an Example of a Policy**

Policies					<b>\$</b> ~
Backlog	Discovery	Requirements & Planning	Build	Measure	Î
<ul> <li>Exit Criteria</li> <li>Business requirements (BRD) or product idea submitted to stream leads</li> <li>Product idea presented at regular stream planning meeting</li> <li>Product idea is prioritized against other backlog entries</li> <li>Discovery team is identified and available</li> </ul>	<ul> <li>Exit Criteria</li> <li>Discovery activities completed (usability, technical feasibility, UX)</li> <li>PPD or TPD reviewed and final</li> <li>T-shirt sizing</li> <li>Ranked against other projects</li> </ul>	<ul> <li>Exit Criteria</li> <li>Build team is identified and available</li> <li>Initial Backlog with MVP defined or draft PRD written</li> <li>Elevator Statement</li> <li>Trade-Off Matrix</li> <li>Ranked against other projects</li> </ul>	<ul> <li>Exit Criteria</li> <li>Development activities complete</li> <li>Testing activities complete</li> <li>User stories accepted or deferred</li> <li>User stories no longer needed are removed</li> <li>Feature is released to production</li> <li>No open defects</li> <li>Ranked against other projects</li> </ul>	Exit Criteria <ul> <li>Metrics collected and published</li> </ul>	ш
		000	WIP Limits: • Buy: • Sell: • CS·		-

- What does it take to leave this columns or work state? Similar to *definition of done*
- One column's exit criteria is the same as the next column's entry criteria



#### Let's Go Back to Our Ticket States and Define the Exit Criteria

		State 4	State 5
Exit criteria:	Exit criteria:	Exit criteria:	Exit criteria:
<ul><li>dfdfd</li><li>dddfs</li></ul>	<ul><li>dfdfd</li><li>dddfs</li></ul>	<ul><li>dfdfd</li><li>dddfs</li></ul>	<ul> <li>dfdfd</li> <li>dddfs</li> </ul>
	Exit criteria: • dfdfd • dddfs	Exit criteria: • dfdfd • dddfs • dddfs	Exit criteria: • dfdfd • dddfs Exit criteria: • dfdfd • dddfs Exit criteria: • dfdfd • dddfs



# **Another Policy is "Class of Service"**

- Keep it simple, to the point, everyone understands it
- Show the type and class of work
- Shows if one *customer* type is more important than another
- Type of work could affect treatment (e.g. new feature, bug fix, production issue)





### What Are the *Classes of Service* for your Tickets?

1	Updates to your tickets	Open T	ckets -	current)	Ticket Statistics (this week)	
Sophie W commented on "The having problems with my order". I got my new panta, and now I have panta, thanks! "way data	1	3 20	GR(	3 0 0 0 0000 BAD SOLVED		
	Tickets	requ	iring yo	ur attention (10) When is this?		
				ID	Subject	Requester
I		Prior	ty:No	iner.		
		0	0	#61	I'm having problems with my order	Sophie W
		Prior	iyi.			
		0	0	#56	Offline Message from Sophie W	Sophie W
		0		#62	I could use some help	Sophie W
		0		#66	I need to reset my password	Sophie W
		0		#67	[Flagged] 'How do I publish my content in other languag_	Jan Jackson
		0		\$70	Y we no code?	Jane Doe
		0	0	#73	dsfdxf/kdf	Jan Jackson
		0	•	#74	this is a test	almee
				#75	Customer is having problem _	Jan Jackson
I		0		#76	Customer is having trouble	Jan Jackson

#### Normal - 4 hours response

Low - 10 hours response

High – 1 hour response (visibility from entire ETS mgmt.)

**Urgent** – 15-minute response (visibility from entire ETS mgmt.)



# 5) Implement Feedback Loops

- Discuss Bottlenecks
- Discuss blockers
- Make sure priorities are clear
- Make sure we are within WIP limits

These are usually done at a daily standup (a.k.a. huddle) and a facilitator updates boards, charts, and tools, often after the team has disbanded.





# 6) Improving





#### How to Improve

- Start with the process as it is today
- Selectively and collaboratively improve the process
- We often use problem solving tools to find root cause and identify improvements/solutions





### **Cause and Effect Diagrams**





#### **Cause and Effect**





#### **Cause and Effect**





# **Cause and Effect Followed by Pareto Analysis**

	Issues					
	Team arrives to standup late					
	Missed customer requirements					
	Accepted new scope mid-sprint					
Document the Issues	Underestimated work needed					
	Not clear of status on remote teams					
	Testing was not completed on time					
	Collaboration was poor					
	Customers were not always available					
	Key Stakeholders did not attend demos					
	Builds failed the smoke test					



#### **Dig Into Root Causes**

#### **Retrospective Issues**

#### Issues

Team arrives to standup late

Missed customer requirements

Accepted new scope mid-sprint

Underestimated work needed

Not clear of status on remote teams

Testing was not completed on time

Collaboration was poor

Customers were not always available

Key Stakeholders did not attend demos

Builds failed the smoke test

#### **ROOT CAUSES:**

1) Customer was new

2) No work history to leverage

3) Teams are distributed

4) Lack of discipline

5) Poorly written stories



#### Use Pareto Analysis to Find the 80/20

- Pareto analysis believes that 20% of the root causes are tied to 80% of the issues we are experiencing
- Fix *the* 20% root cause and you get the most return on your modifications with the least amount of investment

Issues	RC 1	RC 2	RC 3	RC 4	RC 5
Team arrives to standup late			Х	х	
Missed customer requirements	х		Х		Х
Accepted new scope mid-sprint	Х	Х	Х	х	Х
Underestimated work needed		Х			Х
Not clear of status on remote teams			Х		
Testing was not completed on time		Х	Х		
Collaboration was poor			Х		
Customers were not always available	Х		Х	х	
Key Stakeholders did not attend demos	Х		Х	х	
Builds failed the smoke test					
ROOT CAUSES:					
1) Customer was new					
2) No work history to leverage					
3) Teams are distributed					
4) Lack of discipline					
5) Poorly written stories					



### **Then Experiment to Fix the 20%**

#### **Key Root Cause – Teams are distributed**

Priority	Suggested Changes	Who	When
A	See if we can establish complete teams (pods) at the overseas locations.	Manager - Jim	Immediately
A	Have one person on each team work a staggered shift, to take part in a daily standup with all leads at all locations. We will rotate this roll. This will allow sharing across all teams once a day. The representitives will take the information gathered back to their local team's daily standup.	Team	Immediately



### **Kanban Board Tips**

- Keep it in your face
- Make it easy to read big & visible
- Make it easy to update
- If electronic, try to keep it projected or visible all the time
- Make it good for the tools you use – phones, laptops, etc.




## Team or Column Load Balancing



- 1. Perfect World totally cross-functional team
- 2. Real World Some Specialization
- 3. Balance specialization skills to prevent bottlenecks



## Why Do We Want to Use Kanban?

- □ Transparency/visibility of all work
- Better understanding of whole process
- Improved communication and coordination
- □ Shorter processing time
- □ Higher quality
- Lower costs due to improved efficiency
- Better Morale
- **Exposure of problem areas**
- □ Happier customers





## Day 1 Questions

