Course: Value Stream Mapping (VSM) and Process Mapping (PM)



### What is a Video Action Team?

It is a small group of 4-8 people who come together on a weekly basis to discuss the Construction Accelerator<sup>®</sup> videos they are watching and to share their learning. The intent is to clarify the ideas, pick out the most relevant ones for their work, and put what we learn into *Action*. Today.

## How to use this guide

Ownership of a Course or purchase of a Pass or Subscription gives us access to the videos. This Guide groups videos in a "small batch" way that allows us to watch about 15 minutes of video before each week's meeting, then, in the meeting, discuss them for 45 minutes, developing our Action Plans. Meetings can be in person or virtual using Zoom, Teams, etc.

The opening round robin on each page is a general query to the group to get the conversation going and bring out the thoughts that are top of mind. There are a selection of discussion questions that follow, but don't feel like we need to go through all of them! Use them to branch out from the round robin discussion or lead the group to explore other ideas in the videos.

The overall goal of the discussions is to give the group good answers to the second Action Round Robin: "What action can you personally take immediately..."

# Tips

- Switch it up! Swap who leads the discussion each time we meet. A big part of Lean practices involves leading a group through thoughtful discussion to fruitful action. Get some practice here!
- Stick to a regular schedule! If we intend to meet once a week and that keeps not happening, then consider shifting to every other week if that helps. Avoid continually shifting or cancelling meetings because things get "busy". Consistency is key for morale *and* for motivation!
- Follow your interests! While this VAT Guide charts a logical path to learning each topic, if your interest or the demands of your work take us to a different set of videos, we can let our needs "pull" us in the right direction. Just assure you come back where you let off.

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#### **SPECIAL NOTE – READ THIS FIRST**

We are all familiar with simple flow diagrams like the one on the right. One step leads to another. Sometimes they include special shaped and colored boxes that connote conditions, decisions, actions, etc.

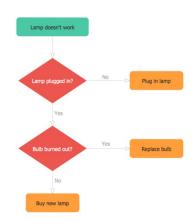
Process Mapping and Value Stream Mapping are MUCH MORE. There is a flow of boxes (we usually use 3" or 4" sticky notes) but we include much more information within each box. This information helps us clarify the Process or Step being described, but also the time involved, resources used, and much more. The videos and downloads clarify this and give you lots of visuals of people actually doing these things including case histories.

Session 1 addresses the importance of getting Flow in your processes. This requires a higher level of thinking, which we call "Level 3 – Project First Thinking". And Flow requires Small Batching of processes, so the first video explains why Small Batching is superior.

Session 2 begins the discussion of Value Stream Mapping (VSM) and explains the difference between VSM and Process Mapping (PM). While, likely, you will use Process Mapping a lot more than Value Stream Mapping, it's important to understand how they fit together. In both cases, we need a Charter (explained in the video). So that is Step 1 in both VSM and PM.

Session 7 is the discussion of Process Mapping (PM). It leverages the learning in Sessions 2-6 and offers a simplified approach you can use frequently to improve process flow.

Value Stream Mapping and Process Mapping are foundational to a collaborative and respectful Lean Culture, because, as Deming and Juran explained, when something goes wrong, 85% of the time the root cause is a process. Only 15% of the time is it "people" (but we tend to blame the people).





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# **Session 1: Getting Flow in Your Team**

#### Topic 105

(Note: this foundational Topic is also included in the Last Planner Course 1A and in Value, Waste and Flow Course and this Video Action Team session also appears there. You only need to conduct this discussion once.)

#### PREPARATION

WATCH: 2 Highlighted Videos: "Small Batching" (in green) and "3 Levels of Thinking" (in yellow)

DOWNLOAD and REVIEW: "T	he 3 Levels of 1	Thinking on a Project"
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#### **OPENING ROUND ROBIN**

- What was the most important or interesting point in these videos from your perspective?
- Was there something you didn't understand or didn't agree with?

#### **DISCUSSION QUESTIONS**

- What are the 3 Levels of Thinking on a project?
- In which Level do you spend most of your time?
- When there's a conflict or disagreement, at what Level does that usually occur?
- If the discussion turns negative or "personal" to what Level does that drive the other person?
- How can our team achieve "Project First" thinking?
- What is the benefit of small batching?
- What are some of the reasons the video recommends "one piece flow" as the best method?
- What are some examples of "large batching" in our own work? Let's be specific.
- How, specifically, does "large batching" slow us down?
- What is one activity or process where we could "small batch" and achieve better flow?

#### **ACTION ROUND ROBIN**

- What action can you personally take immediately from what you learned in this discussion?
- What action can you or your team take to make at least one slight improvement today?

#### **PLUS/DELTA (2 Minutes)**

• What did you like about today's session and what would you change for the next time?

#### TAKEAWAY ROUND ROBIN

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# Session 2: Value Stream Mapping (VSM) Introduction and Charter

Topic 701

#### PREPARATION

WATCH: 1 Highlighted Video: "VSM Intro and Charter"

DOWNLOAD and READ: "Value Stream Mapping Overview" Note the 5 case histories. DOWNLOAD and BRING: "Value-Stream-Mapping-Charter-KMMO-v14"

DO: The 2 Action Items after the Session: but only if you are

immediately applying this to an actual value stream or process in your organization or project.

#### **OPENING ROUND ROBIN**

- What was the most important or interesting point in this video from your perspective?
- Was there something you didn't understand or didn't agree with?

#### **DISCUSSION QUESTIONS (Choose from these)**

- What is one value stream in your work that is bugging you, seems wasteful or frustrating and not delivering as much Value to the customer as it could? Discuss.
- What is "cycle-time" and what are the benefits of reducing "cycle-time"?
- Value Stream Mapping includes "suppliers" which impact processes along the value stream. In the current supply-chain environment, what impact can that have?
- What is the importance of narrowing the scope of the VSM to one single value stream?
- What handful of people might be involved in the Charter session in the value stream you identified in the first bullet above?
- Look at the Charter Excel format and discuss why it includes both First Step and Trigger. (Hint: look at the second tab "Charter Instructions".)
- Look at the Charter Excel format and discuss why it includes both "Current State Problems" and "Measurable Target Condition" and why those specific words were chosen.

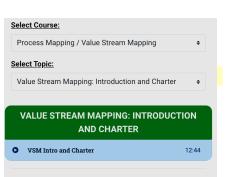
#### **ACTION ROUND ROBIN**

• In the coming few days, identify one Value Steam that your VAT team might want to use and an example as you progress through future Sessions. Propose that next time.

#### PLUS/DELTA (2 Minutes)

• What did you like about today's session and what would you change for the next time?

#### TAKEAWAY ROUND ROBIN





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### Session 3: VSM Current State

Topic 702

#### PREPARATION

WATCH: 1 Highlighted Video: "VSM Current State" (in blue)

#### DOWNLOAD and SCAN: "Current State Mapping description" -

Pay particular attention to the Tag format on page 2, and "Gemba Walk – Current State VSM"

**DO: The 2 Action Items after the Session:** <u>*but only*</u> if you are immediately applying this to an actual value stream or process in your organization or project.

#### **OPENING ROUND ROBIN**

- What was the most important or interesting point in this video from your perspective?
- Was there something you didn't understand or didn't agree with?

#### **DISCUSSION QUESTIONS (Choose from these)**

- Round Robin: Quickly review what each of you identified as an existing Value Stream that needs work and, if appropriate, zero in on one of them to use as your discussion example (and maybe your actual VSM coming up).
- Why is it important for you to understand all the steps in your Value Stream, even if you're really good at YOUR part?
- What percentage of the time do you receive work that is 100% Complete and Accurate (C&A) for you to do your piece of the work?
- What Ground Rules do you think are appropriate for your group's VSM? (Refine them with the group at the beginning of the Current State session you actually conduct.)
- Who should facilitate your first VSM session on Current State? Will they be able to be neutral?
- Why write only the Process (first 1/3 of the tag) in the first go-round?

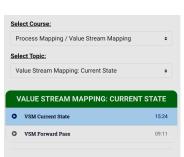
#### **ACTION ROUND ROBIN**

- During the next few days, pay attention to, and write down, "Percent Complete and Accurate (C&A)" for those things that come to you from "upstream" in your own work. Note the impact and what extra steps you have to take (and time you have to wait) to get it to 100%.
- Do a "Gemba Walk" for one or two of the areas in the Value Steam your team has identified. Carefully follow the Gemba Walk guide that you downloaded. Take notes.

#### **PLUS/DELTA**

• What did you like about today's session and what would you change for the next time?

#### TAKEAWAY ROUND ROBIN





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### **Session 4: VSM Forward Pass**

Topic 702

#### PREPARATION

WATCH: 1 Highlighted Videos: "VSM Forward Pass" (in blue)

DOWNLOAD and DO: "Gemba Walk – Current State VSM"

**DO: The 2 Action Items after the Session:** <u>*but only*</u> if you are immediately applying this to an actual value stream or process in your organization or project.

#### **OPENING ROUND ROBIN**

- What was the most important or interesting point in this video from your perspective?
- Was there something you didn't understand or didn't agree with?

#### **DISCUSSION QUESTIONS (Choose from these)**

- What is the intended outcome of the "Forward Pass" in developing a map of the Current State?
- What were some of the key points you observed in the video of Kyle facilitating a Forward Pass?
- What might some "Barriers to Flow" be in your own work? How best can you explain "Barriers to Flow" to others who are writing their tags?
- What is the difference between Process Time (PT) and Lead Time (LT)? Why do we need both?
- On each of the tags, who should be the one to determine the percentage of the time the work received from upstream is 100% Complete and Accurate (C&A)?
- What is a "Kaizen Burst"?
- Why is it valuable to add Kaizen Bursts on the Current State Map?
- What are your concerns about calculating the metrics from all the tags?
- Why do we wait about a week before moving to the VSM Future State Mapping session?

#### **ACTION ROUND ROBIN**

• We want some practice identifying "Barriers to Flow", so, in the Value Stream your group has identified, each person say which one of your Processes you will observe in the next few days and for which you will write down actual Barriers to Flow you are encountering.

#### **PLUS/DELTA**

• What did you like about today's session and what would you change for the next time?

#### TAKEAWAY ROUND ROBIN

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### Session 5: Future State Map

Topic 703

#### PREPARATION

WATCH: 1 Highlighted Video: "VSM Future State Mapping" (in blue)

#### DOWNLOAD and REVIEW: "Future State Mapping" DOWNLOAD and GLANCE OVER: "Summary Metrics – VSM/PM"

**DO: The First Action Item after the Session:** <u>but only</u> if you are immediately applying this to an actual value stream or process in your organization or project.

#### **OPENING ROUND ROBIN**

- What was the most important or interesting point in this video from your perspective?
- Was there something you didn't understand or didn't agree with?

#### **DISCUSSION QUESTIONS (Choose from these)**

- What is the intended result of creating a Future State Map?
- Why do we intentionally make the sheet of plotter paper shorter than the Current State Map?
- By placing the Future State Map plotter paper just above the Current State Map, what can we use from that previous Map in creating the Future State? (Note: Never "cannibalize" tags. You need to preserve both maps.)
- Why do we "pull" (starting at the end and pulling backward from right to left) from the Last Step tag in creating the Future State Map?
- How does "pulling" from the End help us create a Future State that is "clean and waste free"?
- What is the value of comparing the Process Time and Lead Time metrics between Current State and Future State (using the downloaded Excel "Summary Metrics")? How is this motivation to the team?

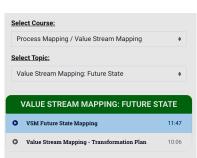
#### **ACTION ROUND ROBIN**

• We want some brainstorming practice identifying "Future State" for YOUR processes in the Value Stream your group has chosen. So using the process you observed for Barriers to Flow from the last session, strategize (and write for yourself on Post-It tags) how your Future State might look if you removed the waste. (Note: you didn't create a Current State Map for this, just looked at Barriers, so this is just a brainstorming exercise.) TELL EACH OTHER WHICH PROCESS YOU'LL BE STRATEGIZING.

#### **PLUS/DELTA**

• What did you like about today's session and what would you change for the next time?

#### TAKEAWAY ROUND ROBIN





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### **Session 6: Transformation Plan**

Topic 703

#### PREPARATION

WATCH: 1 Highlighted Video: "Value Stream Mapping – Transformation Plan" (in blue)

DOWNLOAD and REVIEW: "Value-Stream-Transformation-Plan-v15-KMMO"

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**DO: The Second Action Item after the Session:** <u>*but only*</u> if you are immediately applying this to an actual value stream or process in your organization or project.

#### **OPENING ROUND ROBIN**

- What was the most important or interesting point in this video from your perspective?
- Was there something you didn't understand or didn't agree with?

#### **DISCUSSION QUESTIONS (Choose from these)**

- Why do we even need a "Transformation Plan"? Why don't we just adopt the Future State Map as our new way of working?
- What is the #1 Rule in brainstorming?
- Why do we winnow brainstormed ideas down to about 10?
- Discuss the value and ease of creating a PACE chart (Priority, Action, Consider, Eliminate) to rank and prioritize your 10 Transformation Plan options?
- What has been your experience in getting group consensus on a 1-10 scale on things like Benefits and Ease of Implementation? If you were to facilitate this, how would you get the group to consensus?
- Briefly discuss the benefits of assigning an "Owner" and "Due Date" to each of the Transformation Plan Actions (except the Eliminated ones).
- How regularly will you follow up to assure progress and reliable commitments?

#### **ACTION ROUND ROBIN**

• Now that you know how to do Value Stream Mapping, identify an actual Value Stream in your project, department or organization that you want to propose to fully map (Charter, Current & Future Maps and Transformation Plan). Propose it for actual implementation.

#### **PLUS/DELTA**

• What did you like about today's session and what would you change for the next time?

#### TAKEAWAY ROUND ROBIN

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### Session 7: Process Mapping

Topic 704

#### PREPARATION

WATCH: 1 Highlighted Video: "Process Mapping SHORTCUT" (in blue)

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DO: The First Action Item before the session and be able to discuss with the group.

#### **OPENING ROUND ROBIN**

- What was the most important or interesting point in this video from your perspective?
- Was there something you didn't understand or didn't agree with?

#### **DISCUSSION QUESTIONS (Choose from these)**

- What is the difference between a Value Stream Map and a Process Map?
- What Process did you brainstorm you want to map? What are its First and Last Steps and Triggers? (Make a list of all the Processes the group members have identified.)
- Discuss what other processes you and your group deal with that "bug" you and are wasteful.
- What are the 4 ways people tend to see every process? (Hint: believe, suppose, could, really) Why does Current State Process Mapping break through the first 3 misperceptions?
- What collaborative Ground Rules might apply to your group doing a Process Mapping session?
- Why do we only list the Process Steps in the initial Current State map?
- Why do we wait till after the Forward Pass to add the other information? (Barriers, PT, LT, %C&A)
- Why do we map the Future State "backwards" from the end?
- Discuss the simplified Transformation Plan method for Process Mapping. What all is included in the Action Plan to get to the Future State?
- Why do we include things you will "Stop Doing"?

#### **ACTION ROUND ROBIN**

As a group, choose one fairly small Process you all encounter and choose a day and time (about an hour or two) to Process Map it (Current State and Future State) and develop some Action Items to remove the waste and get to the Future State. Take photos and upload in the second Action Item. This can be one of the most valuable group activities that you do and can yield immediate benefits for everyone.

#### **PLUS/DELTA**

• What did you like about today's session and what would you change for the next time?

#### **TAKEAWAY ROUND ROBIN**

