



PARTICIPANT GUIDE

Cubic Integrator Learning Journey

Session 6: Agile Concepts, Lean Thinking,
and Continuous Improvements



Corporate Education Group
Learning That Powers Performance

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MANAGEMENT AND LEADERSHIP

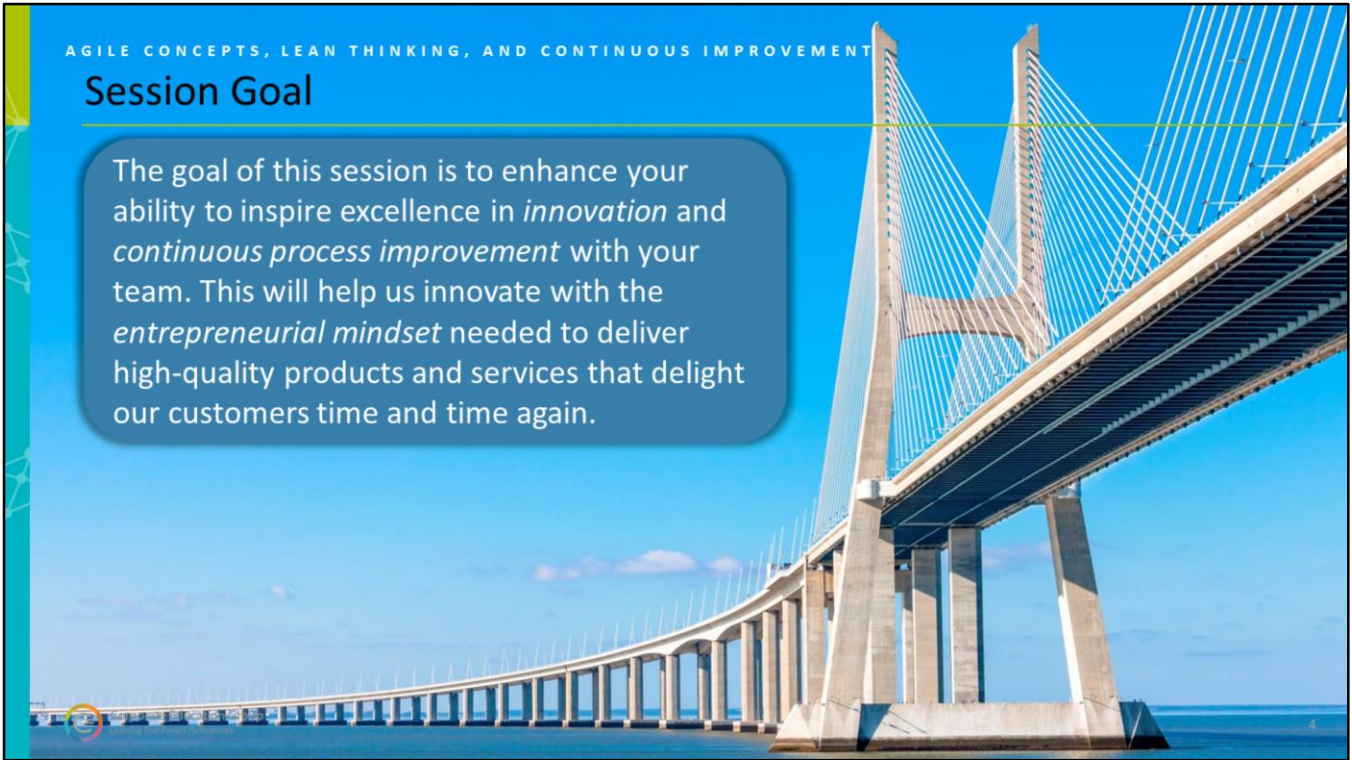
Cubic Integrator Learning Journey

Session 6: Agile Concepts, Lean Thinking, and Continuous Improvement



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MDV829g-1121 Session 6



AGILE CONCEPTS, LEAN THINKING, AND CONTINUOUS IMPROVEMENT

Session Goal

The goal of this session is to enhance your ability to inspire excellence in *innovation* and *continuous process improvement* with your team. This will help us innovate with the *entrepreneurial mindset* needed to deliver high-quality products and services that delight our customers time and time again.





Session Learning Objectives

By the end of this course, you will be able to:

- Define agile and lean concepts
- Describe the skill sets needed for an agile team
- Use process improvement to support organizational growth
- Shape a culture of continuous improvement





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AGILE CONCEPTS, LEAN THINKING, AND CONTINUOUS IMPROVEMENT



Session Topics

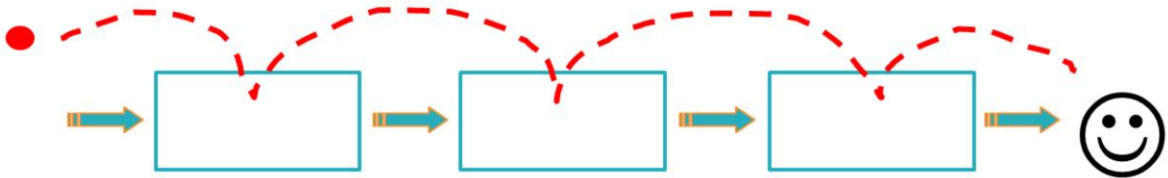


- What Is Lean Thinking?
- Nurturing Continuous Improvement Culture
- Guiding an Agile Team

AGILE CONCEPTS, LEAN THINKING, AND CONTINUOUS IMPROVEMENT

Organizational Quality

What is supposed to happen...



CHAT

What Impedes Workflow?



What do you witness?

- **What impedes workflow, at either an organizational or a personal level?**

Please type your response in the chat box.

AGILE CONCEPTS, LEAN THINKING, AND CONTINUOUS IMPROVEMENT

Lean Thinking

Focus on **value** and **velocity** – *providing the best quality at the lowest cost:*



- Cycle Time Reduction
- Process Analysis
- Elimination of Waste
- Rapid Project Execution
- Error-Proofing
- Engagement of Those Involved
- Continuous Improvement

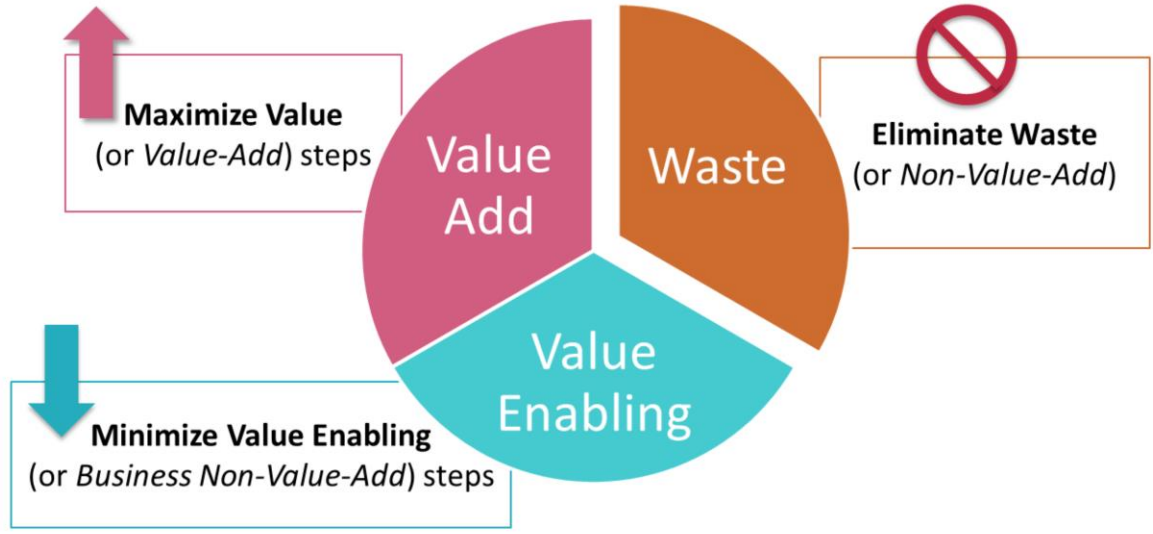
Touch it once
◆
Do it right the first time
◆
Move on

Through the lens of the external customer/client

AGILE CONCEPTS, LEAN THINKING, AND CONTINUOUS IMPROVEMENT



Value Stream Analysis (VSA)



AGILE CONCEPTS, LEAN THINKING, AND CONTINUOUS IMPROVEMENT

Types of Waste – Muda



- D** Defects – rework, scrap, incorrect information
- O** Overproduction – producing more than needed, before needed
- W** Waiting – wasted time waiting for next step – things, information, people
- N** Non-Utilized Resources – underutilized people, skills, knowledge, etc.
- T** Transportation – unnecessary movement of things, information
- I** Inventory – excess products, materials, information being processed
- M** Motion – unnecessary movement by people (e.g. walking, searching, choosing)
- E** Excess Processing – over-analysis, more work than required



INDIVIDUAL ACTIVITY

Identify Your Work Headaches



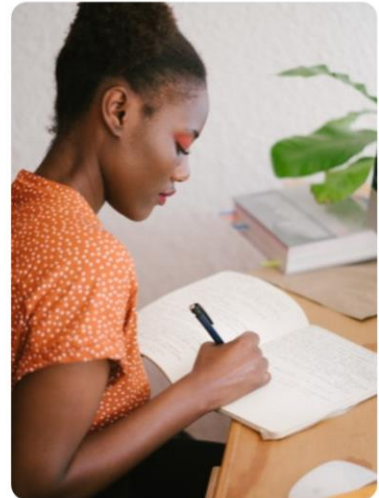
Objective: Create a list of your work headaches and categorize them by the type of waste.

Procedure:

Working individually, think about your daily pain points that hinder you getting your work done.

- List them on the worksheet in your participant guide.
- Identify in which work process step each pain point happens.
- Categorize which type (s) of waste each pain point represents.
- Think about which pain point causes the most disruption in getting your work done, and circle the top 3.

Be prepared to discuss your work with your small group.



Individual Activity: Your Work Headaches

Objective: Create a list of your work headaches and categorize them by the type of waste.

Pain Points. (Circle the Top 3)	Identify Workflow Process Step	Type(s) of Waste

GROUP BREAKOUT ACTIVITY

Share Your Top 3 Work Headaches

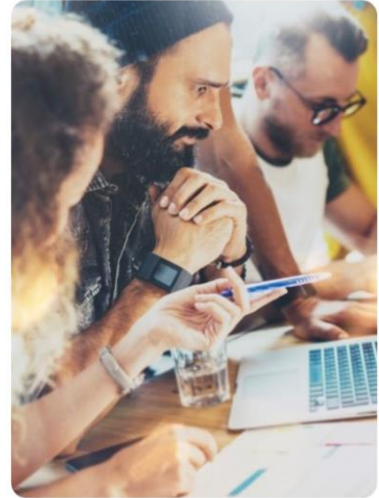


Objective: Discuss your **top 3** daily work headaches with work colleagues and edit as appropriate.

Procedure: Working in a small group:

1. Share your **the top 3** pain points only.
2. Repeat until everyone has shared.
3. Discuss themes and different perspective from your colleagues' viewpoint.
4. Expand and/or edit your personal worksheet, as necessary

Be prepared to discuss your work.



CLASS DISCUSSION

Visual Workspace



- What do you think the term *visual workspace* means?
- How do you think it relates to the different types of waste?
- How might it relate to one or more of your top 3 pain points? Please share example.



A Visual Workplace Is...

- The *goal* of a workplace is to create an environment that is:
 - Self-explaining
 - Self-ordering
 - Self-regulating
 - Self-improving

- This is achieved by using one or more of these techniques:
 - Using **visual controls**
 - Applying the **5S method**
 - A **kaizen workshop** approach



When I see it, then I understand it

CHAT ACTIVITY

Your Workplace Visual Controls



Visual Controls: devices that *inform* or *indicate* a *condition* at a glance

Method

- Color-coding
- Outlining
- Labeling
- Signboards

Indicates

- Similar purpose or time
- Location
- Identity
- Identity, routes



Color indicating area of importance or differences



Different **size/shape**



Limit (electronic) queue sizes to a minimum



Use **dashboards** to display incoming volumes

1) Current Examples to Indicate	2) Improvement Ideas to Indicate

AGILE CONCEPTS, LEAN THINKING, AND CONTINUOUS IMPROVEMENT

How to Maintain a Visual Workspace – 5S (1/2)

A Lean (Japanese) workplace organization method

Objectives

- Create workplace **organization** and **standardization**
- Achieve and sustain a clear, clean, safe, and organized workplace
- Ensure that the workplace contains only what is needed, when it is needed, and where it is needed



AGILE CONCEPTS, LEAN THINKING, AND CONTINUOUS IMPROVEMENT

How to Maintain a Visual Workspace – 5S (2/2)

Consists of five components:

- **Sort** – into keep versus not needed; necessary versus unnecessary. Keep only what is needed.
- **Straighten/Set in Order** – put in proper place.
- **Shine** – clean workplace and equipment on regular basis to maintain standards and identify defects. Ready for use next time.
- **Standardize** – maintain the gains from sort, straighten, and shine.
- **Sustain** – self-discipline, to maintain the standard and continuously improve.



AGILE CONCEPTS, LEAN THINKING AND CONTINUOUS IMPROVEMENT

Continuous Improvement: **Kaizen** versus *Quick Hits*

- **Kaizen**: The philosophy that *continuous improvement* takes place through small, incremental process improvements repeated over and over again
- **Kaizen Event** = Accelerated DMAIC or *rapid improvement event* conducted within about a one-week timeframe by the process workers themselves



INDIVIDUAL ACTIVITY

Revisit Headaches Using Visual Workspace

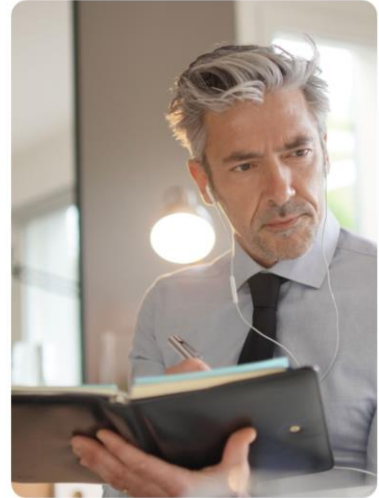


Objective: Understand what lean concepts might help improve work.

Procedure: Individually, revisit your *top 3 work pain points* from the first exercise. Complete this exercise recording work on the new visual workspace worksheet in your participant guide.

1. Think about **how long** each problem has existed.
2. Record any involved **other work performers** (*individual roles, teams, organizations*) and supporting performers.
3. Identify potential **root causes** behind the pain point.
4. Name which **visual workspace technique(s)** might possibly help resolve the pain point (i.e., visual controls, 5S, and/or kaizen event).

Be prepared to discuss your work with the large group.



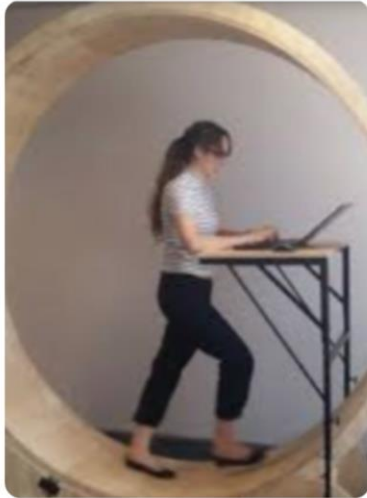
Individual Activity: Revisit Headaches Using Visual Workspace

Working individually, revisit your *top 3 work pain points* from the first exercise and complete this exercise by recording your work on the new visual workspace worksheet below.

Top 3 Pain Points	Other Work Performers	Potential Root Cause of Failed Improvement	Visual Controls/5S/ Kaizen Support

AGILE CONCEPTS, LEAN THINKING, AND CONTINUOUS IMPROVEMENT

Continuous Improvement



- We all get on the hamster wheel of daily life and time passes with hopes for improvement ... tomorrow.
- *Lean* incorporates a mindset and toolset to help realize the goals of continuous improvement today.
- It is not an addition to daily life – it simply becomes a *part of daily life*.

CLASS DISCUSSION

Lean Enterprise



- A **lean enterprise** emphasizes the prevention of waste and a company culture of continuous improvement.
- Outdated mass-production systems are systematically transformed to lean systems that improve quality and reduce defects and costs.

How might your organization instill lean and continuous improvement into its culture?

AGILE CONCEPTS, LEAN THINKING, AND CONTINUOUS IMPROVEMENT

Comparing Traditional and Agile Project Management



- Team lead: project manager (PM) role
- PM manages:

1. Integration	6. Risk
2. Scope	7. Stakeholder
3. Schedule	8. Resources
4. Budget	9. Communication
5. Quality	10. Procurement
- PM combines a mix of leader and manager role
- PM manages how the team works to produce deliverables within phase gates
 - Team size varies (6 to 1000)
 - Defines team structure and guides team on “rules of engagement”
- Documentation-heavy
- Stable requirements necessitate integration change control and governance

- Team lead: Scrum master (SM) role
- SM’s primary role is as “roadblock eliminator” and “educator” on the agile approach
- Team is small (6 to 10), possess full portfolio of skills needed, and it defines how to will work together
- Documentation is light, using “public” boards
- Changing requirements necessitate:
 - Minimizing design and development costs early (using prototyping)
 - Frequent touch points with key stakeholders (product owner) to elicit feedback and answer questions

AGILE CONCEPTS, LEAN THINKING, AND CONTINUOUS IMPROVEMENT

Four Key Success Elements to Managing Team's Work

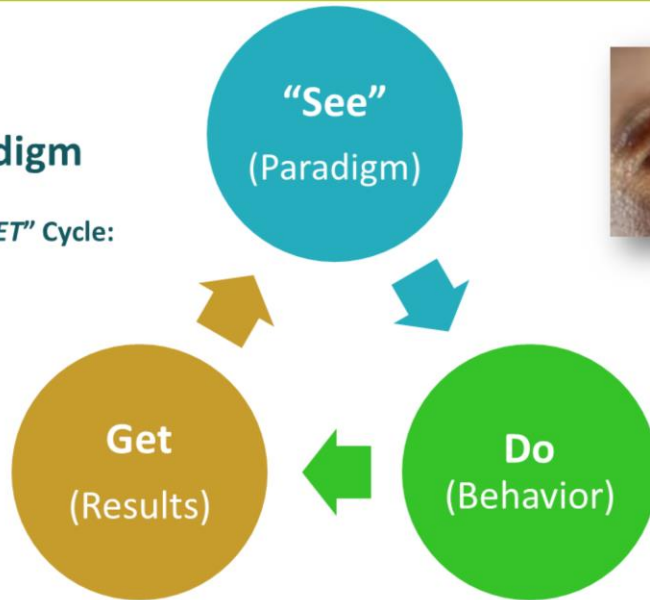
- 1. Priorities Clarified and Stack Ranked** – both across portfolio of work and within project (e.g., documented in a project charter for waterfall or product backlog for agile projects)
- 2. Agreements on “Rules of Engagement”:**
 - How to work together (roles and responsibilities)
 - Expectations for deliverables’ monitoring (report on performance against plan) and controlling (if any variance, what is the appropriate corrective action?)
 - How best to communicate – within team (formal or informal), escalation, reviews, etc.
- 3. What Good Looks Like** – agreed-upon metrics for key deliverables (output and process) and for the team’s “rules of engagement”
 - Metrics: specific, measurable, achievable, relevant, and time-bound (i.e., day/month/year).
- 4. Performance Report** – a dashboard communicating work status, key issues, and near-term forecast

AGILE CONCEPTS, LEAN THINKING AND CONTINUOUS IMPROVEMENT



Lean-Agile Is All About "Seeing"

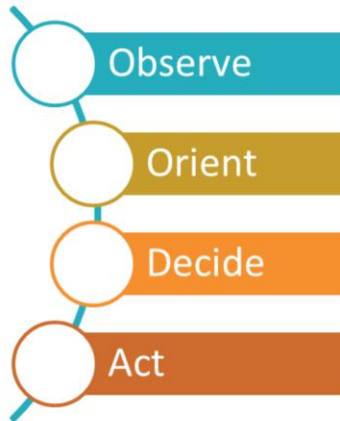
See Paradigm
or
the "SEE-DO-GET" Cycle:



Stephen Covey, in his *7 Habits of Highly Effective People* describes the impact of the 'See' Paradigm on our behavior.

AGILE CONCEPTS, LEAN THINKING, AND CONTINUOUS IMPROVEMENT

Scrum: Conducting a Team Meeting via the Agile Method



- *Self-organizing* and *self-managing* teams; ideally cross-functional
- Conduct *reviews often* (daily) for a few minutes (about 5 minutes); often stand
- Ask 3 questions:
 1. **What did you do since the last time we met?**
 2. **What are you going to do?**
 3. **What is getting in your way?**
- Identify and categorize **what is working well** and **what isn't**; decide on a course of action.
- Permits anyone to attend, but *only team members* committed to delivering Scrum work are *allowed to speak*.



Key culture ingredient to an agile team

INDIVIDUAL ACTIVITY

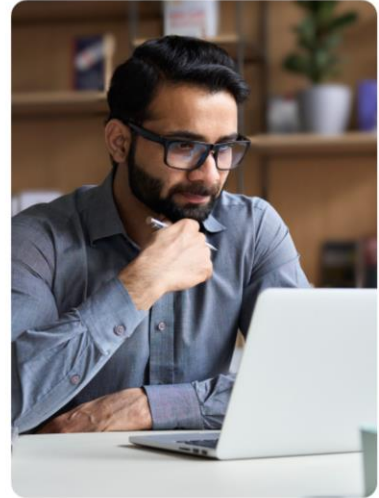
What Good Looks Like



Objective: Practice applying agile techniques to help improve work.

Procedure: **Individually**, revisit your top 3 work pain points from previous exercises. Complete this exercise by recording your work on new worksheet in the participant guide.

- Reflect on the work's supporting performers (individual roles, teams, organizations) and the potential root causes behind the pain point, and develop metrics that define the success criteria metrics for their contribution.
 - Consider: being specific, measurable, achievable, relevant, and time-bound (i.e., day/month/year)
- Think about how you will communicate what you "see" to them when introducing these new metrics.



Be prepared to discuss your work with the large group.

Individual Activity: What Good Looks Like

Working individually, revisit your top 3 work pain points from the previous exercises and complete this exercise by recording your work on the new worksheet below.

Top 3 Pain Points	Other Work Performers	Potential Root Cause of Failed Improvement	Critical Success Metrics

DEBRIEF DISCUSSION

What Good Looks Like



- What new metrics did you think of that hadn't been communicated in the past?
- What communication strategy did you come up with to share these metrics with these stakeholders?



A G

Delivering Results of Value

- **Continually “seeing”** opportunities to increase value and velocity to the external customer/client through the lens of various stakeholders
- **Value** = of worth (importance); willing to pay for it
 - Fit for use: functional (useable); answers a need
 - Value – is in the eye of the beholder; as defined by the requester/customer
 - The requester may not always best describe the need
 - Envisioning or being aware of “what is of value” may be elusive
 - It may be easier to describe frustrations (or waste)
 - Observe the requesters working/doing to understand intention
- **Robust design:** something fit for use even during/after a “special-cause event”



TOOLS

Lean Thinker: Critical Concepts

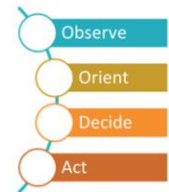
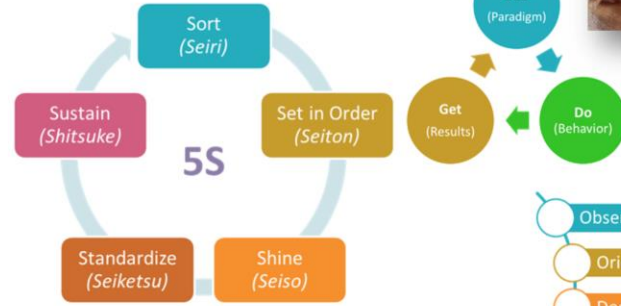


Velocity & Value
for External
Customer/Client

D
O
W
N
T
I
M
E



Visual Controls



Kaizen Event



CHAT ACTIVITY

Demonstrating Lean Thinking



To wrap up, type in the chat box:

- What do you **see**? What is one action you can take in the next week to *lean thinking* at either an organizational or at a personal level?
- **How** do you plan to implement *this lean thinking action* and **who** will you involve?

SUMMARY AND NEXT STEPS

Key Insights? How Will You Apply Your Learning?



NEXT STEPS: BRIDGE WORK

Deepen Your Understanding of Lean Thinking



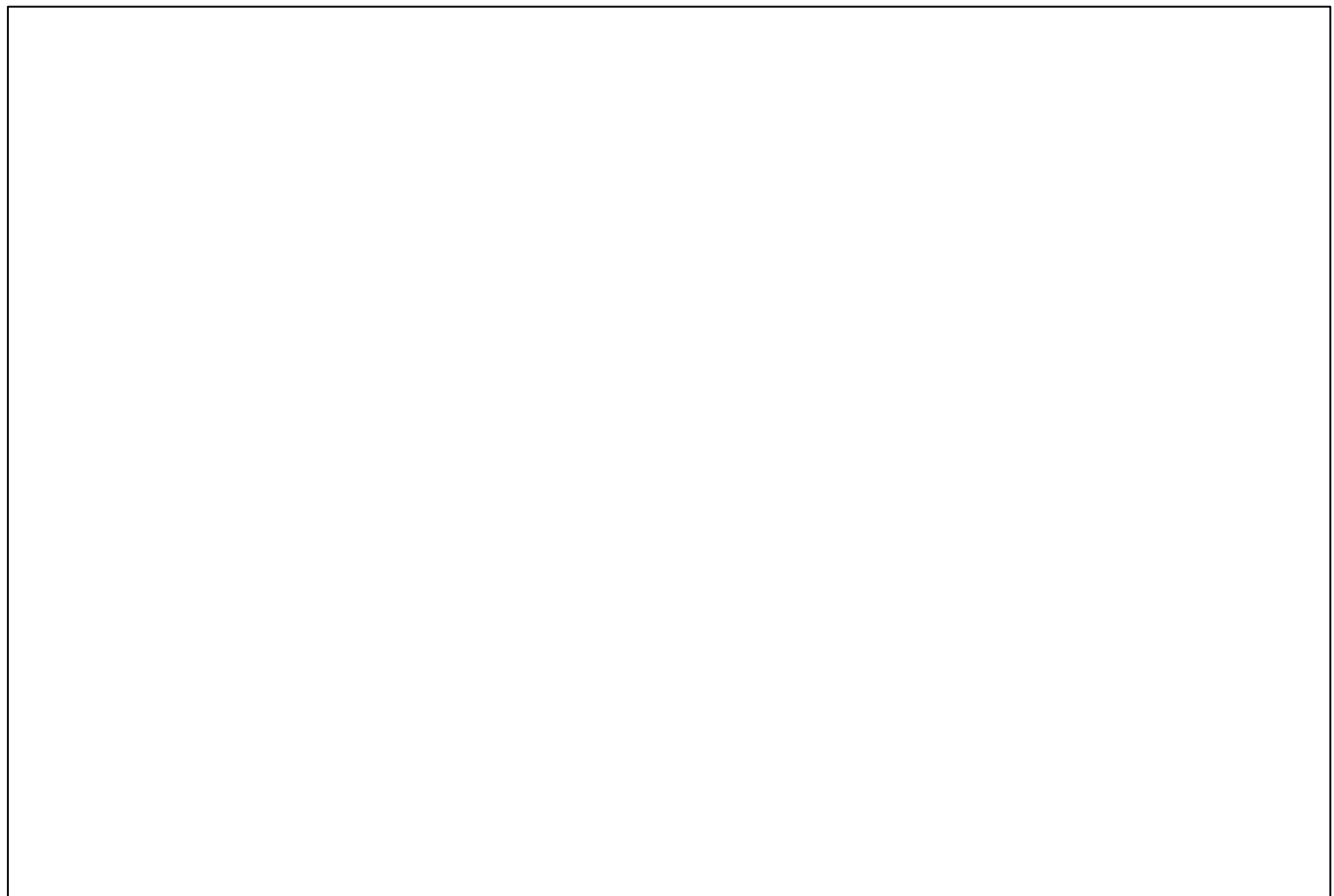
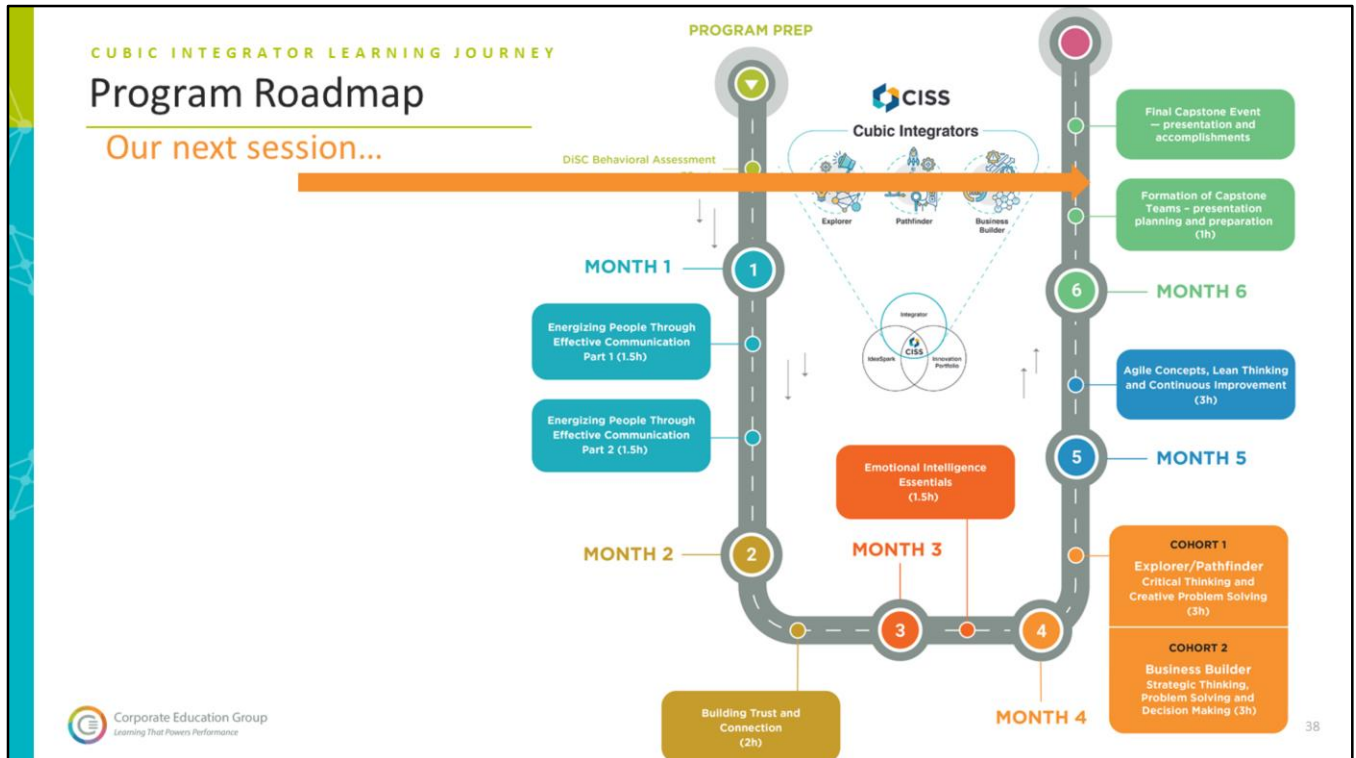
Individually, explore these resources to deepen your understanding:

- Read: HBR article “Creating a Culture of Continuous Improvement” by Aravind Chandrasekaran and John S. Toussaint <https://hbr.org/2019/05/creating-a-culture-of-continuous-improvement>
- ★ Book Recommendation: *Scrum: The Art of Doing Twice the Work in Half the Time*, by Jeff Sutherland
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