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Me Think, We Think

Accelerating Collaboration

Summary

Dave Hogue

9-10 February 2021

Insights

In a traditional sprint, the leader helps create the time and space to collaborate with focus, but this is more difficult when participants are remote and have only intermittent time together.

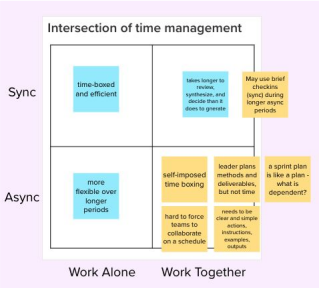
We need to adapt sprint activities and methods for remote and asynchronous collaboration, but we also need to adapt the logistics and operation of sprints, because working remotely AND alone places new and different demands on both sprint leaders and participants.

When working remotely and asynchronously:

- Spontaneous collaboration and communication is more difficult when remote, and much more difficult when asynchronous
- More intention and effort to share one's work with and remain aware of the work of others is required
- Individuals must make their own time and space to contribute effectively and equitably
- External demands and interruptions are more likely and often override commitments to the sprint

Remote AND asynchronous challenges

	Individual work	Group work
Team assembled	Working alone while the team is assembled	Working together while the team is assembled
Team dispersed	Working alone while the team is dispersed	Working together while the team is dispersed



Traditional Sprint

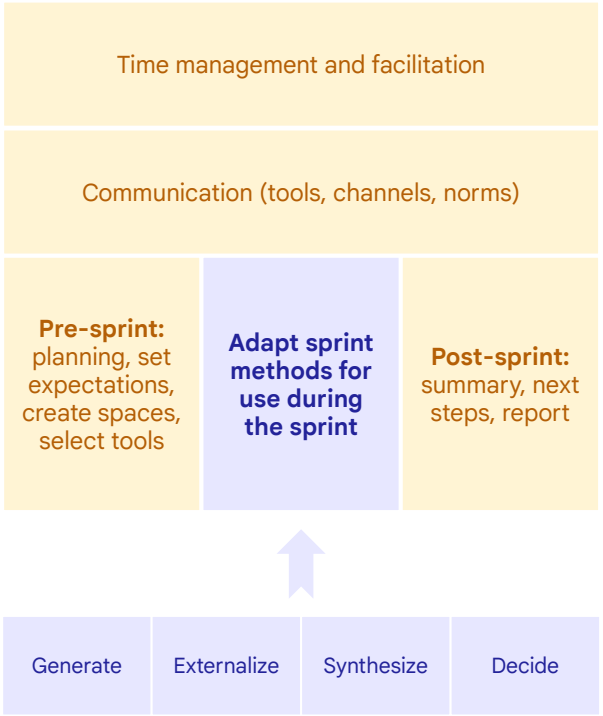
Sprint leaders reserve the time and create the physical spaces for team members to assemble and collaborate. Time can be easily divided between working alone and working together.

Dispersed Sprint

Sprint teams have less time together, individuals do more alone, and shared digital spaces are less conducive to collaboration.

Working together while team members are dispersed across time and space is difficult and requires new tools, methods, and forms of collaboration that provide visibility into each other's work, ways to share information and ideas, and forms of communication that do not interrupt too much yet still convey complex information efficiently. Adapting sprint activities for remote work is not enough.

Extending the ALTO Model



ALTO Model

Planning a dispersed sprint

Dispersion means to be physically and temporally separated from one's team members. A dispersed sprint is more than being remote - the participants also contribute by working together at different times.

Sprint leaders must also adapt how they manage time, how they facilitate, how they configure and encourage communications, and how they create shared digital spaces that foster sharing and collaboration without being onerous or causing excessive interruptions.

It's more than activities and exercises

Adapting sprint methods is not enough, we must plan for time and space to collaborate and communicate even when dispersed.

Adapting for Dispersed Sprints

Where to focus:

Space
Where and how will people communicate and collaborate? Chat, email, multi-user documents, multi-user tools, etc. allow people to see all work and all conversations on their own schedules

Time
When will teams be together? Use time together to focus on shared understanding, synthesis, and making decisions. Give more time to work alone than to work together.

Activities
What will teams do? The Sprint Leader facilitates across assembled and dispersed times, and activities must be adapted to allow flexible individual work and focused team work.

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ALTO Model & Theory

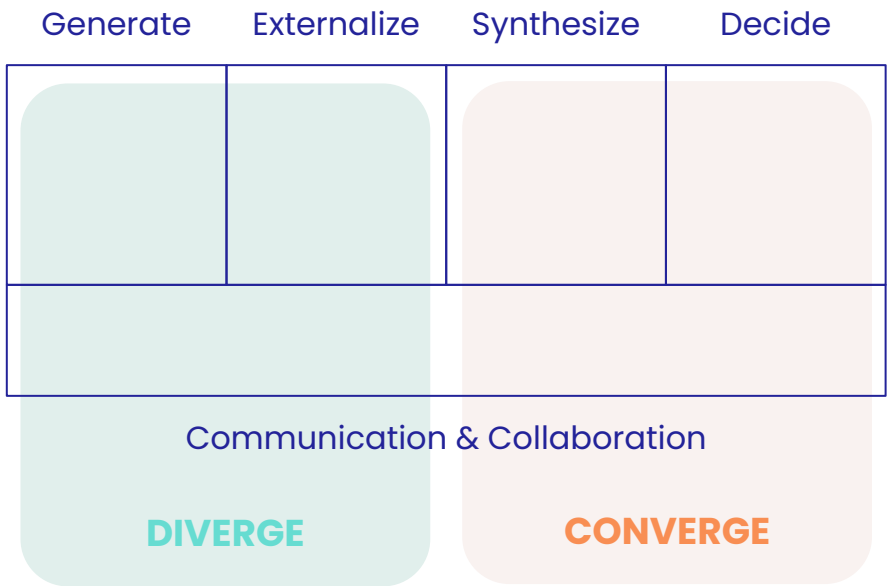
The ALTO model:

1. Working Alone + Working Together
   - *Faster ideation and iteration*
2. External Representations
   - *Clear purpose and goal*
3. Modified Delphi Method
   - *Faster synthesis*
4. Decision Matrices
   - *Team stability and cohesion*
5. Communication
   - *Sharing and collaborating*

Phase: _____

Goal(s): _____

Method: _____



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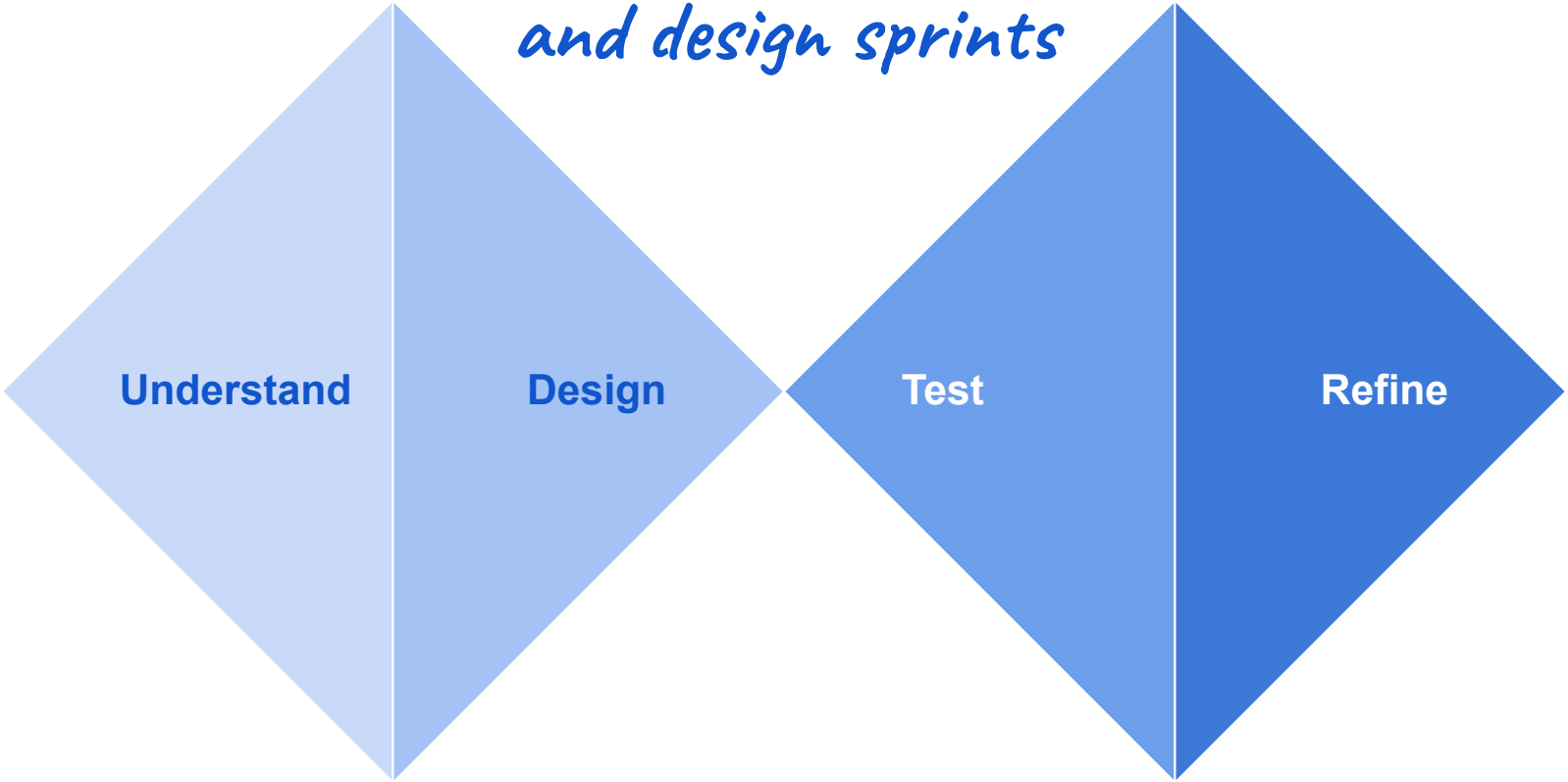
Working Alone (AL) & Working Together (TO)

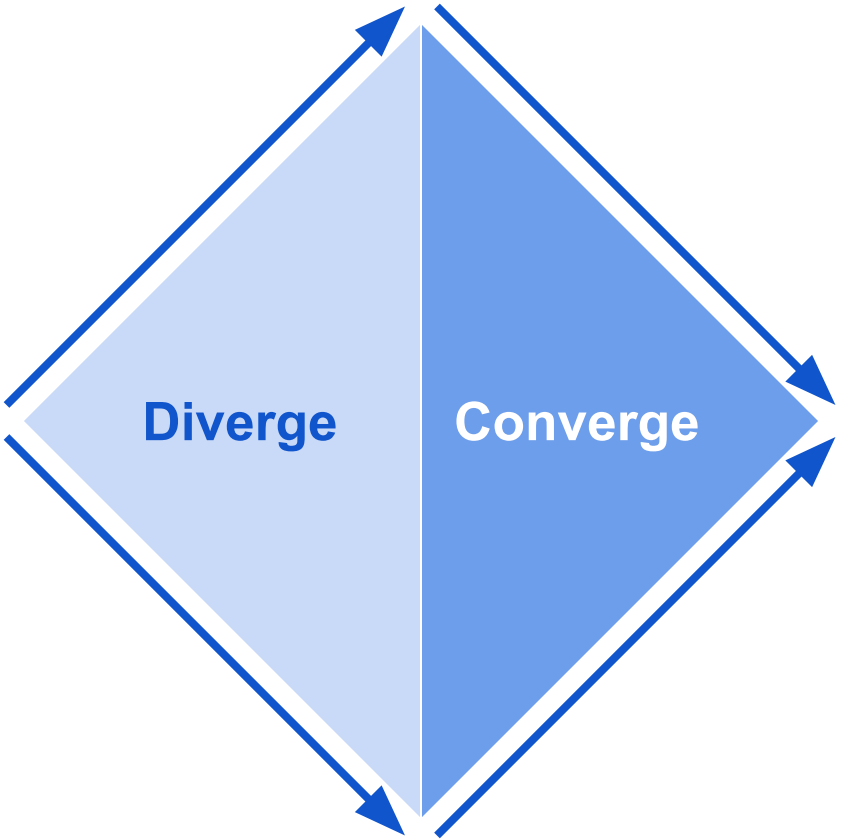
Working Alone + Working Together

Core method is iterative cycles of generating, synthesizing, and deciding.

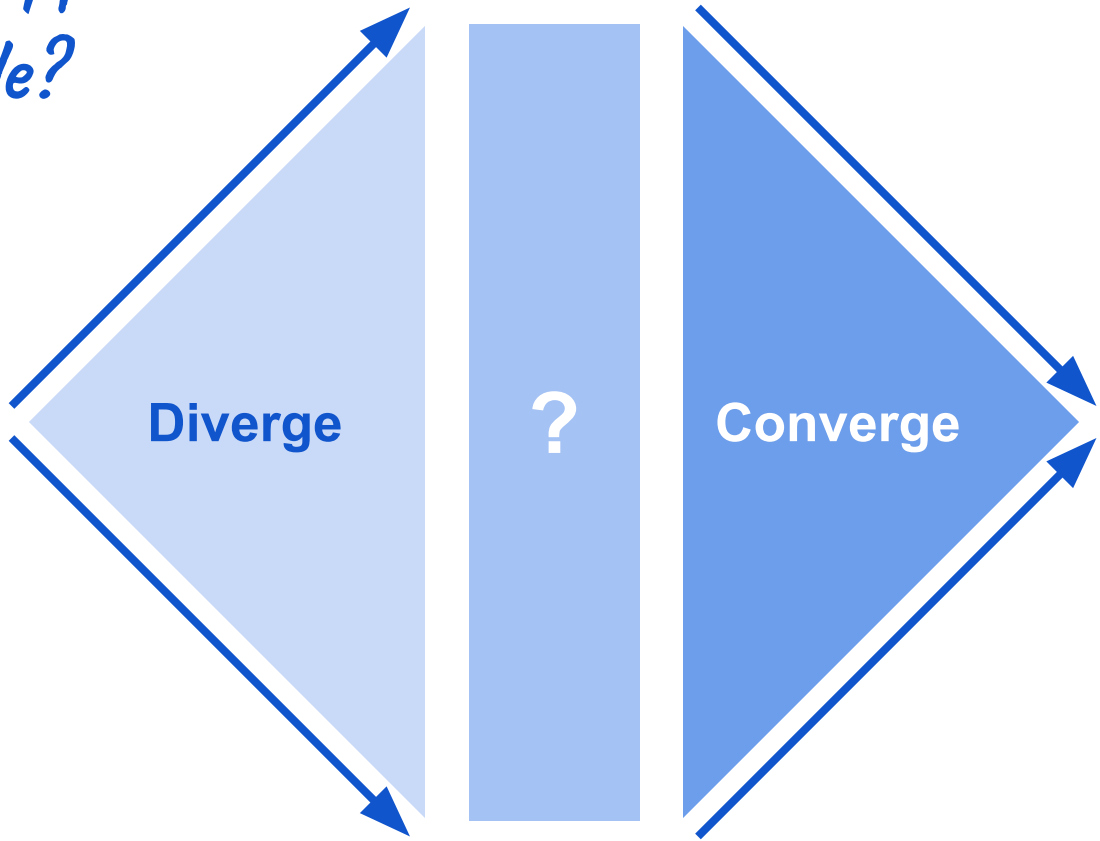
1. Individuals generate ideas, information, sketches, or decisions *diverge*
2. Groups share, discuss, organize, and select *converge*
3. Individuals iterate, borrow, extend, and improve *diverge*
4. Groups review, consolidate, refine, and decide *converge*

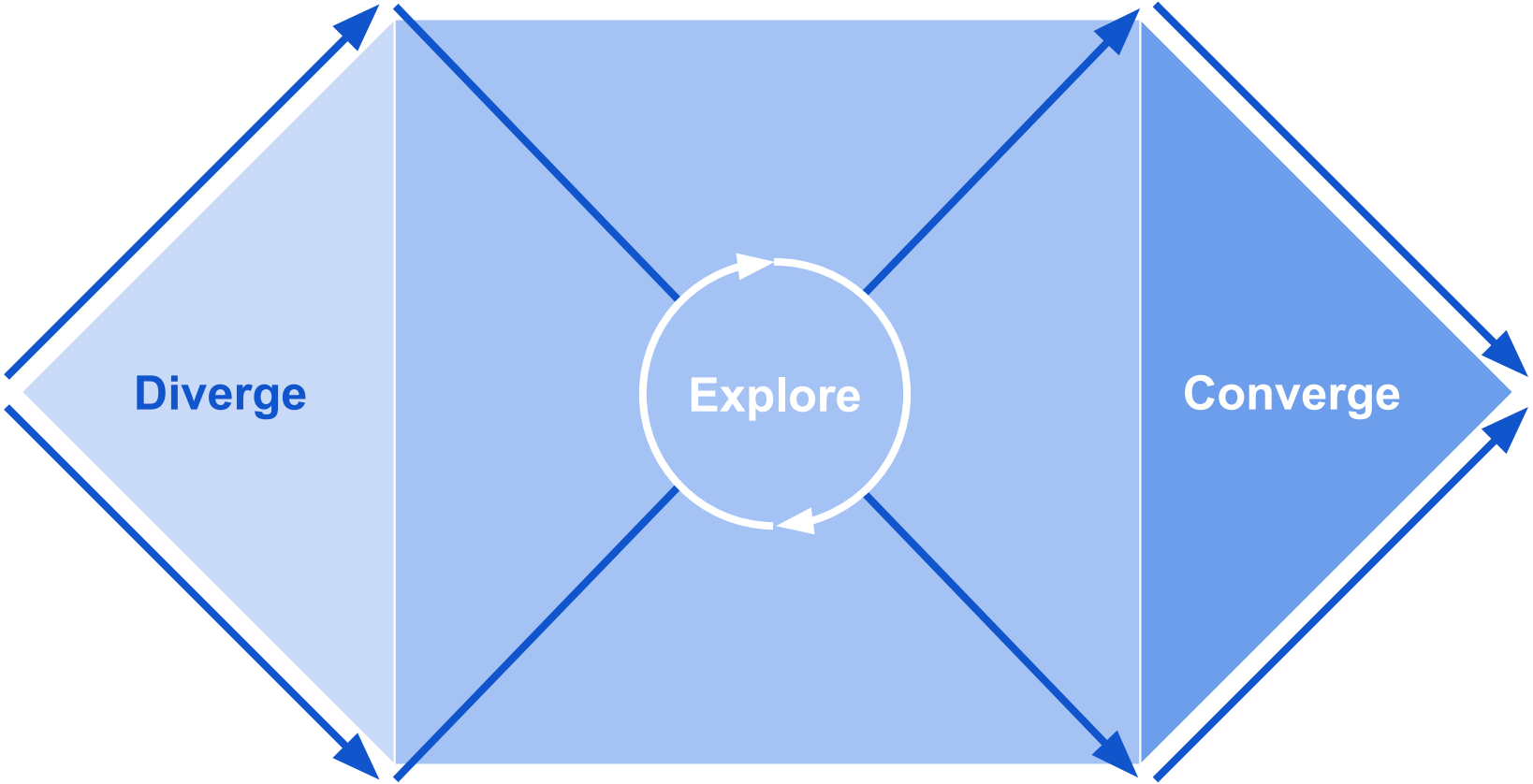
UX double diamond and design sprints

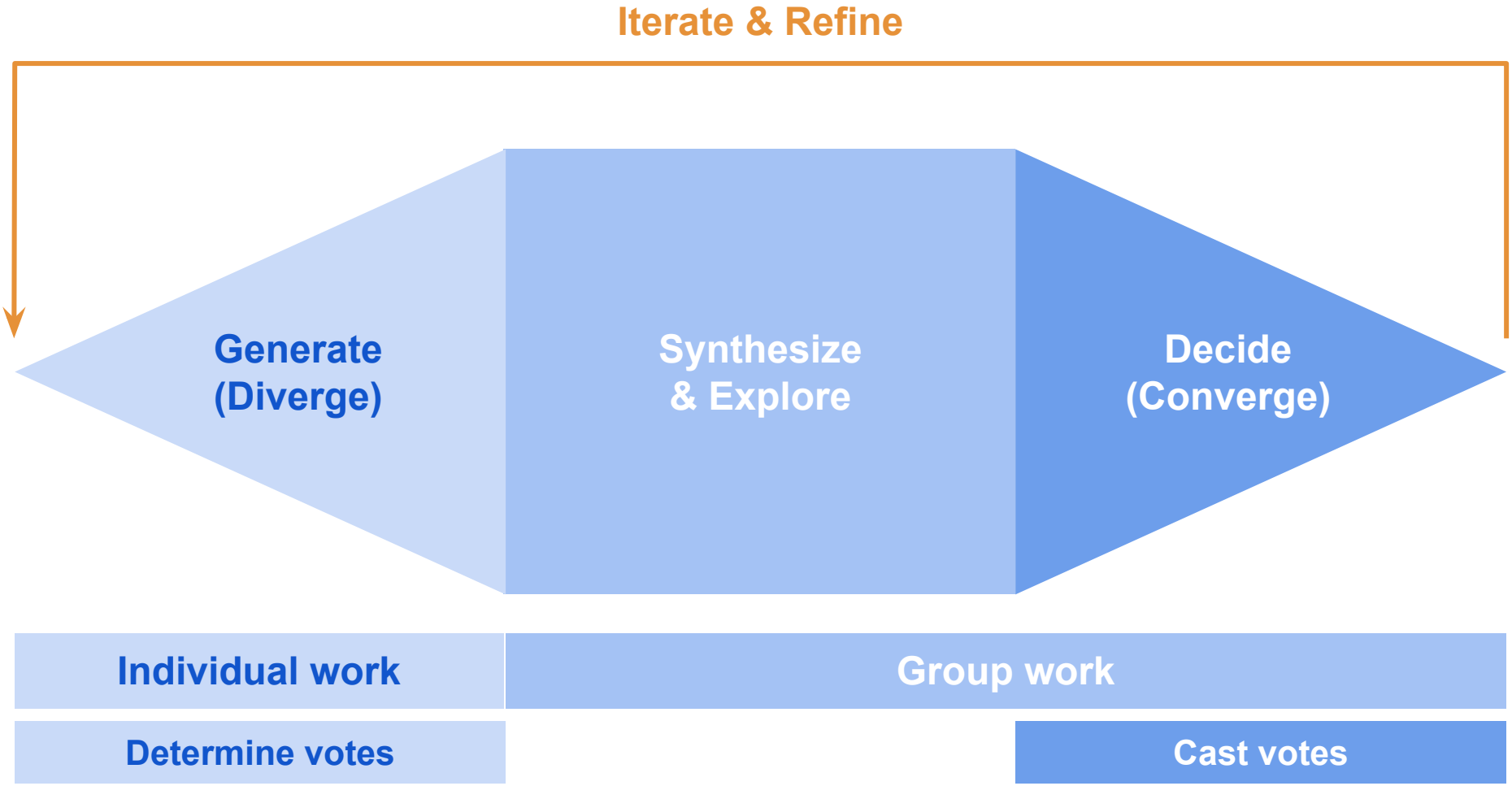



Diverge
Converge

But what happens in the middle?




Diverge
Explore
Converge


Iterate & Refine
Generate (Diverge)
Synthesize & Explore
Decide (Converge)
Individual work
Group work
Determine votes
Cast votes

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External Representations & Distributed Cognition

Thinking & Things to Think With

Efficiently moving back and forth between individual and group work requires having a shared and common understanding of the problem, information, ideas, and goals.

We use **externalized representations** such as sketches, design artifacts, lists, models, hypothesis, principles, prototypes, and physical objects.

We create meaning, share understanding, and cooperate on ideation, problem-solving, and decision-making with **distributed cognition**: knowledge and thinking is distributed across objects, individuals, artifacts, and tools in the environment.

External Representations

Ideas that live only in our minds are not conducive to collaboration.

We need to create external representations of problems, ideas, concepts, and potential solutions to share them with others, develop agreement and a common understanding, and work together to make them better using distributed cognition.

Get something out there for everyone to see, consider, and work together on.

External Representations

Clear writing (meaningful, unambiguous questions and statements)

Diagramming (capture and communicate relationships and flows)

Sketching (illustrate ideas, states, and outcomes quickly and iteratively)

Sticky notes, whiteboards, sketch pads, and digital workspaces.

Words are Essential External Representations

Challenge statement (for design sprints)

Describe the problem, identify the users and desired outcome, and define the success metrics. *(Optional: constraints & opportunities, timelines, caveats)*

“How might we…?” (HMW)

Generous questions that help teams generate potential solutions.

Critical User Journey (CUJ)

Descriptive statements about users, their needs, the tasks they perform, the goals they are trying to achieve, and what motivates them.

Scenarios and stories

Narratives that convey and illustrate the context, people, motivations, and emotions

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Modified Delphi Method

Modified Delphi Method

Originated in the practice of Information Architecture:

1. Individuals generate many ideas individually
2. Team comes together to synthesize and organize the ideas
3. One person chooses one of their ideas, shares it, describes it, and others add their similar or related ideas to it
4. After all similar or related ideas have been contributed, the next person chooses one of their remaining ideas, shares it, describes it, and others add their similar or related ideas to it *(repeat steps 3 and 4 until all ideas have been shared)*
5. Revise and re-arrange all shared information by modifying contents, clusters, position, and sequence until a solid organizational structure emerges

Working Alone

At the start of each activity, individuals will be given a task to work on by themselves.

The amount of time tends to be brief, because individuals should focus on generating ideas, not evaluating them.

Working Together

After the individual work, teams gather to share their ideas. Sharing is done in turns.

Teams have a shared workspace where individual work can be posted for feedback from and collaboration with the team.

Decide & Proceed

After teams have discussed, organized, and synthesized their ideas, they select their best ideas through a decision or voting process.

The selected ideas are iterated through another cycle. This is repeated until the team decides they have a valid, optimal solution.

Categorization vs. classification

Categorization is flexible and creative and draws non-binding associations between entities; it divides the world of experience into groups or categories whose members share some immediate similarity within a given context. Objects may belong to more than one category, because the boundaries are “fuzzy.”

Classification divides a universe of entities into an arbitrary system of mutually exclusive and non-overlapping classes that are arranged within the conceptual context established by a set of established principles and rules. Classes are mutually exclusive, and objects exist only in one class.

Categorization	Classification
Process	
Creative synthesis of entities based on context or perceived similarity	Systematic arrangement of entities based on analysis of necessary and sufficient characteristics
Boundaries	
Because membership in any group is non-binding, boundaries are "fuzzy"	Because classes are mutually-exclusive and non-overlapping, boundaries are fixed
Membership	
Flexible: category membership is based on generalized knowledge and/or immediate context	Rigorous: an entity either *is* or *is not* a member of a particular class based on the intension of a class
Criteria for Assignment	
Criteria both context-dependent and context-independent	Criteria are predetermined guidelines or principles
Typicality	
Individual members can be rank-ordered by typicality (graded structure)	All members are equally representative (ungraded structure)
Structure	
Clusters of entities; may form hierarchical structure	Hierarchical structure of fixed classes

Jacob, E.K. (2004). Classification and Categorization: A Difference that Makes a Difference. Library Trends, 52, 515-540.

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Organization schemes

Objective / Exact	Subjective / Arbitrary
Alphabetical	Topic
Chronological	Task
Sequential	Characteristic
Geographic	Audience
Hierarchical	Metaphor
Hub-and-spoke	Perception
Matrix	

Organization schemes may describe structure through ***inclusion*** *(all members possess a characteristic, what something IS) or* ***exclusion*** *(no members possess a characteristic, what something IS NOT.)*

Nomenclature & association systems

Representation	Connection
Names	Navigate & browse
Labels	Search
Images	Sort & filter
Illustrations	Link
Icons	Sequence & step
Charts	Analogy
Diagrams	Gestalt Principles

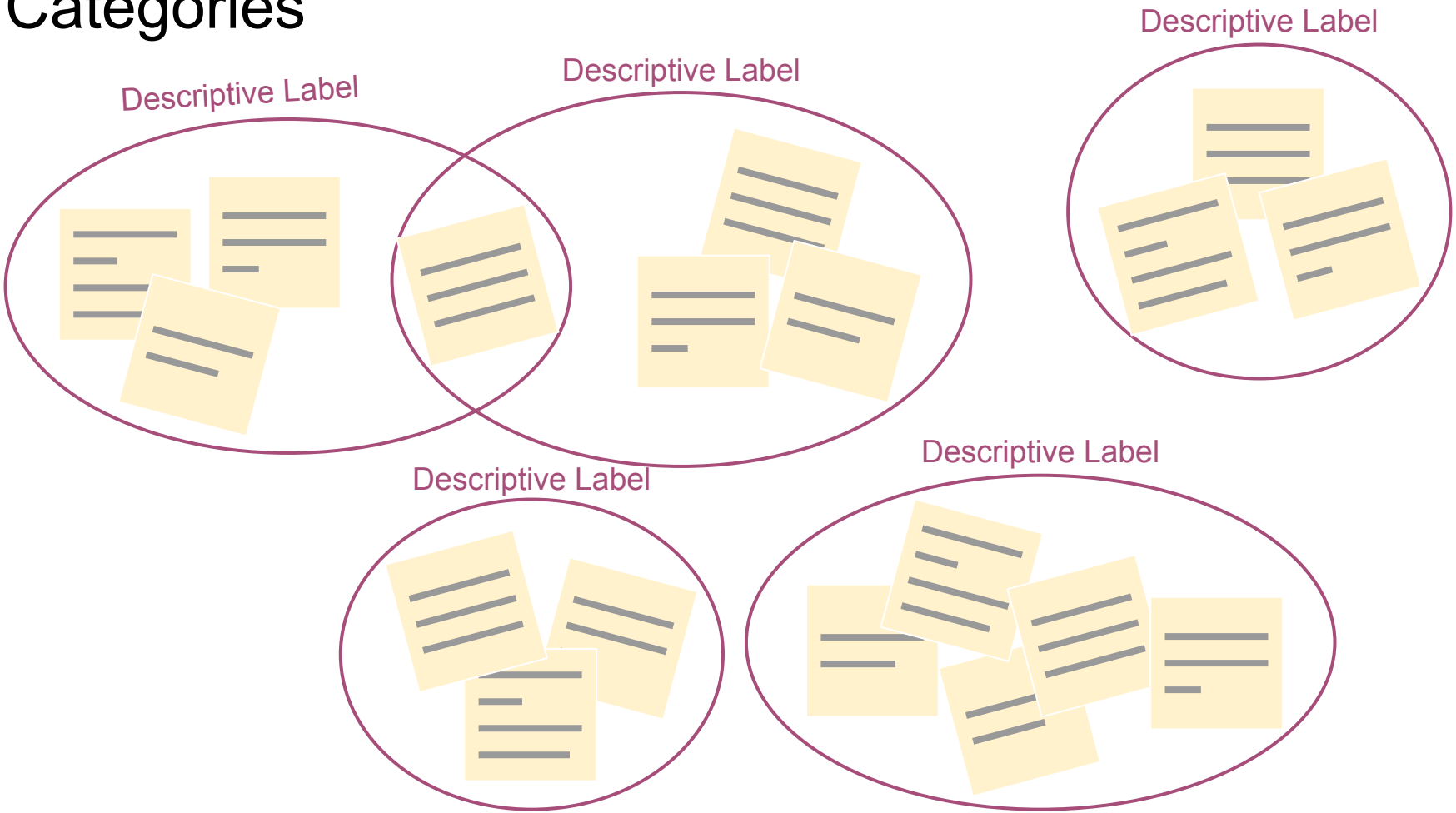
Structure *refers to all of the parts of a system and how they are related to one another.*

Flow *refers to the path through the inter-connected structure over time and in context.*

Cards

Clusters

Categories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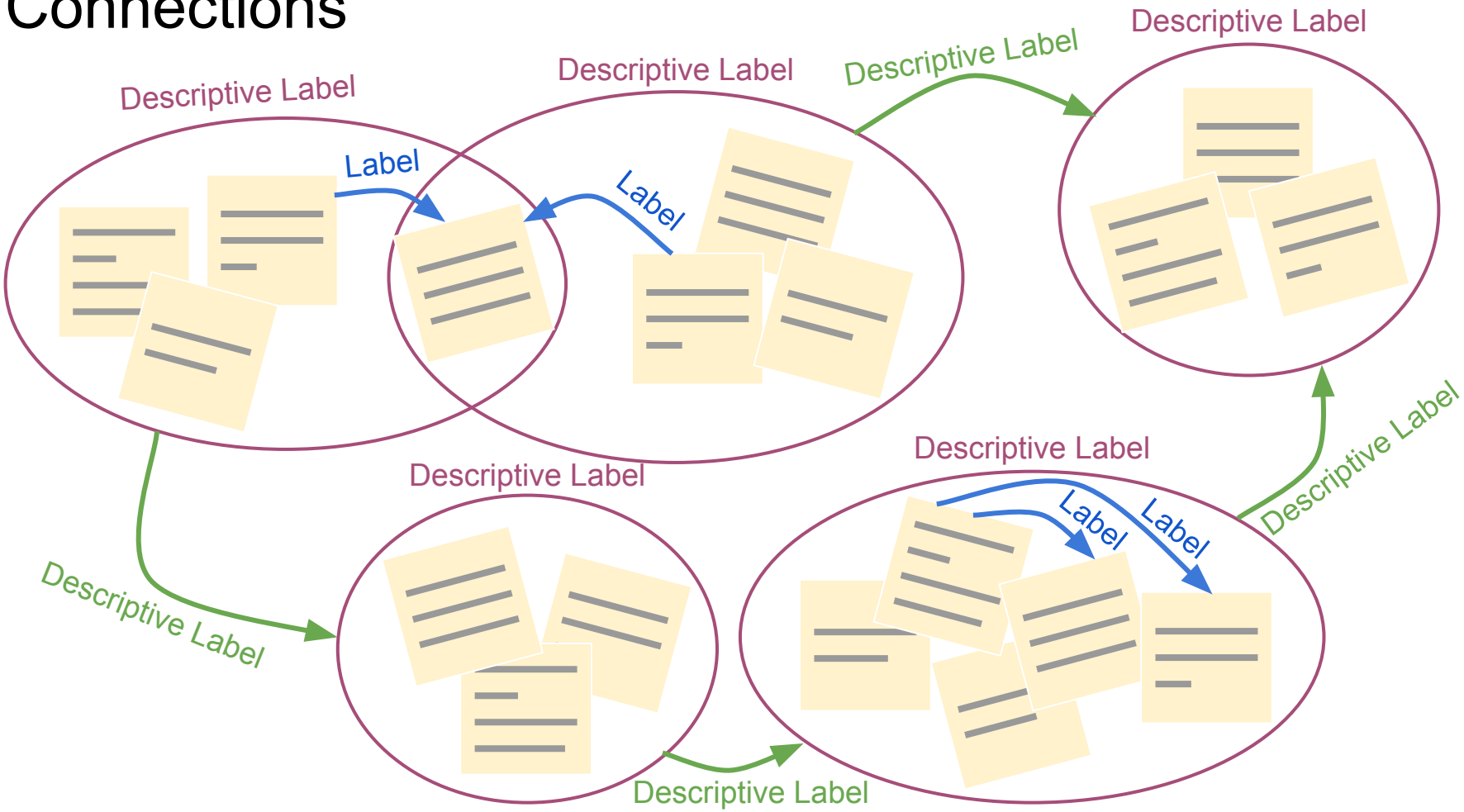
Connections



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Decision-making

Choosing a path or solution

Critical thinking is the process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and evaluating information to reach an answer or conclusion.

Analytic reasoning is the ability to look at information, be it qualitative or quantitative in nature, and discern patterns and structure within the information.

Decision-making is the cognitive process resulting in the selection of a belief, idea, model, theory, or a course of action among several alternative possibilities.

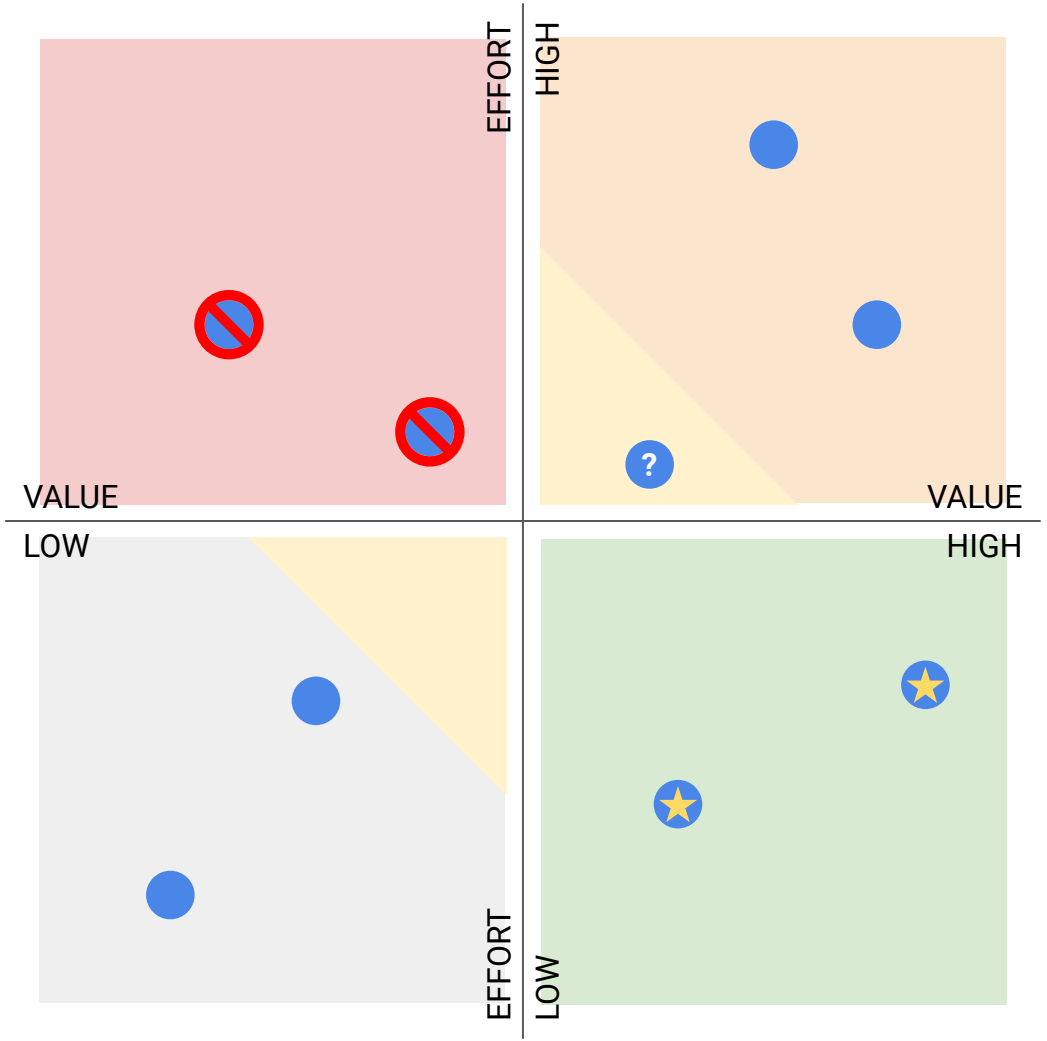
Decision Matrices

Structured and rigorous decision-making using agreed-upon methods helps a team remain focused and reduces disagreements.

There are many different decision matrix structures and methods:

- Effort vs. Impact
- Value vs. Feasibility
- Weighted factors
- Applicability (e.g., how many different roles, needs, or problems might be addressed with a proposed solution?)
- Pugh Matrix (e.g., rate new ideas relative to existing products or features as a baseline)
- *and more...*

Quadrants



Weighted Factors Decision Matrix

	Criterion 1 (criterion weight)	Criterion 2 (criterion weight)	Criterion 3 (criterion weight)	Criterion 4 (criterion weight)	**TOTAL** (for ranking)
Option A (or Problem A)	*weight × rating = score*	*weight × rating = score*	*weight × rating = score*	*weight × rating = score*	*sum of row scores*
Option B (or Problem B)	*weight × rating = score*	*weight × rating = score*	*weight × rating = score*	*weight × rating = score*	*sum of row scores*
Option C (or Problem C)	*weight × rating = score*	*weight × rating = score*	*weight × rating = score*	*weight × rating = score*	*sum of row scores*
Option D (or Problem D)	*weight × rating = score*	*weight × rating = score*	*weight × rating = score*	*weight × rating = score*	*sum of row scores*

Pugh Matrix

			-2 *(much worse)*	-1 *(worse)*	0 *(same)*	+1 *(better)*	+2 *(much better)*
	Weight (multiplier)	Current Product	Proposed Solution 1		Proposed Solution 2		Proposed Solution 1
Factor 1	5	0	-1		+1		+1
Factor 2	3	0	0		-1		-1
Factor 3	2	0	+2		+1		0
Factor 4	1	0	0		0		-1
Total		0	+1		**+7**		+1

Dot Voting

Voting

When voting, individuals should take a minute to decide their votes BEFORE the group casts their votes. This can reduce bias and influence.

Review all of the choices, ask team members to silently consider their options and write down their votes.

When everyone is ready, they can all approach the whiteboard or join the digital workspace and cast their votes with stickers, dots, icons, or other indicators.

When all votes are cast (and it should be quick), tabulate the results, then review the results with the team.

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Adapting sprint methods

Phase: Which phase or stage of the sprint or workshop will the method be used?

Goal(s): What is the desired outcome of the method? What should its use result in?

Method: What is the method that will be adapted to the ALTO Model?

Generate	Externalize	Synthesize	Decide
What will people do alone? What will they do together?	What are the artifacts of their work alone and together? What will they create?	How will they use the Modified Delphi Method to share and synthesize their ideas?	How will they choose which ideas to pursue? Which questions to ask? Which ideas to drop? How will they collectively make decisions?

What are the tools, channels, and timing for sharing information and collaborating? What the benefits and challenges of working synchronously and asynchronously?

Communication & Collaboration

Phase: Understanding the problem space

Goal(s): Generate and organize many ideas and find relationship among them

Method: Affinity mapping

Generate	Externalize	Synthesize	Decide
Individuals will generate many ideas or pieces of information, and together they will organize that information into groups and identify connections.	Individuals will write one idea or piece of information per card. The group will sort the cards into a diagram of groups of related ideas and the connections among the groups.	Each person will share one card at a time, others' similar ideas will be placed with it, then groups will be refined and labeled. Groups will placed in sequence or connected by drawn lines.	Naming idea groups, which to connect, and which to discard will be decided by consensus. Dot voting will be used to identify which areas will be selected for further exploration.

Workshop participants will have a chat room, group email alias, and shared text documents to record notes and comments. Shared workspaces in Figma and MURAL will be used for artifacts. Google Meet will be used for synchronous, remote meetings.

Communication & Collaboration

Phase: _____

Goal(s): _____

Method: _____

Generate	Externalize	Synthesize	Decide

Communication & Collaboration

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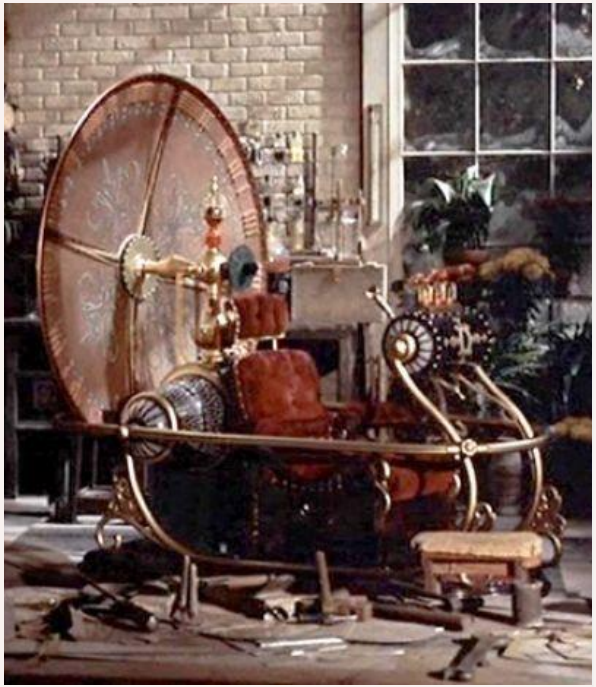
Synchronous & Asynchronous work

Sync & Async



It's fuzzy...

The boundary between synchronous and asynchronous work is blurry. When is synchronous work necessary or just preferred? When is asynchronous work beneficial or better? How should we divide time and tasks between the synchronous and asynchronous periods?

Observe yourselves

What do you think will be the challenges moving from sync to async work then back again?

What do you predict will work well or be easy, or not, when you are working alone and at different times?

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Thank you!

ciao