

# *Design Thinking* **Playbook**

FOR CHANGE MANAGEMENT IN K12 SCHOOLS

Written and designed by  
Norman Tran





# Acknowledgements

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IDEO  
Stanford d.school K12 Lab

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NOTES

IDEAS

QUESTIONS:

MISCELLANEOUS:

# Introduction

## D.TECH INTERNAL MISSION

“

Our mission is to develop students who believe that the world can be a better place and that they can be the ones to make it happen.

”

Ken Montgomery, Executive Director

## D.TECH EXTERNAL MISSION



### MODEL HUMAN-CENTERED SYSTEMS

Inspire others to redesign their educational programs to make them more human-centered.



### KNOWLEDGE IN ACTION

Teach other educators on how to move from knowledge to action

# What is Design Thinking?

## DEFINITION

In order to execute on that mission, Design Tech High (d.tech) needs to run as an organization that is always focused on serving student's needs. Instead of being trend-focused, we are focused on students and are always iterating ourselves as an organization to best serve their needs. To do that, we use a process called design thinking.

## WHERE DID DESIGN THINKING COME FROM?

Popularized by the Institute of Design at Stanford (d.school) and widely used to tackle problems from business to K12 education, Design Thinking is a creative problem solving process that focuses on understanding the needs of others, rapid testing and iterating, and bringing out your inner creative genius!

## WHAT IS DESIGN THINKING USED FOR?

When people think of design they often think of aesthetics such as flyers, or physical things like a table. But design thinking as a process can have broader impact in solving all kinds of school challenges including programs, spaces, services, and systems. In the Case Studies section you'll find examples of three Design Sprints we've run and how we use the design thinking process to solve challenges at d.tech.



Tools



Spaces



Programs



Systems

## NOTES

### IDEAS

### QUESTIONS:

### MISCELLANEOUS:

# What is Design Thinking's Purpose at d.tech?



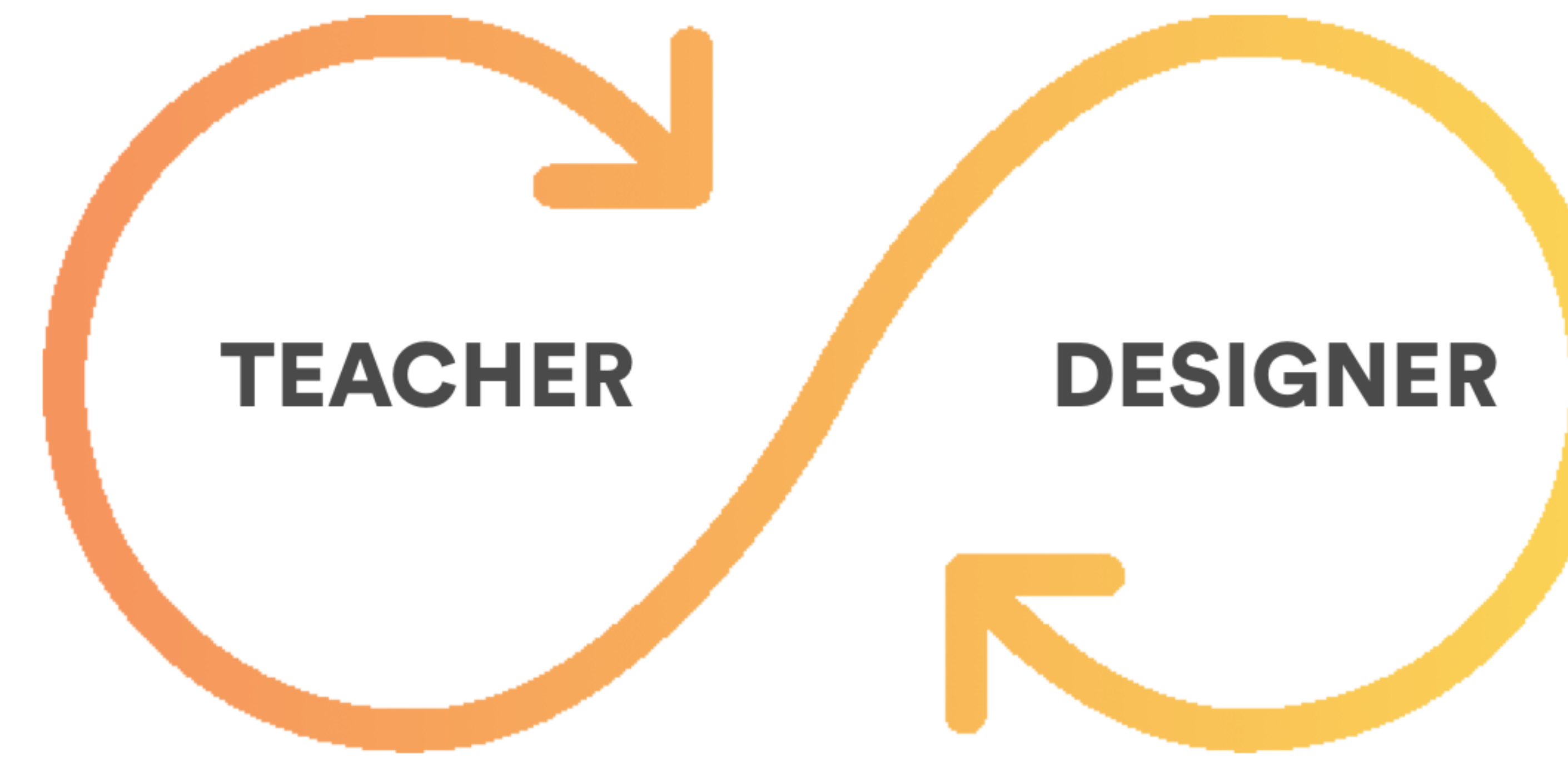
## TEACHER AS DESIGNER

### THE ROLE

At d.tech, teachers are considered learning experience designers which means incorporating the design thinking mindsets into the teaching crafting (i.e. curriculum, space, rituals, assessment etc). In addition, as teachers can play a significant role in school-level design through Design Sprints.

### Expectations

- Participate in Design Sprints
- (With more experience) Facilitate Design Sprints



### THE "INFINI-DT" LOOP

The "Infini-DT" loop is a framework used at d.tech to describe the relationship between the dual roles that staff embody: that of a Teacher and that of a Designer. d.tech staff are never just or the other, but are instead constantly moving between the two roles .



## DESIGNER AS TEACHER

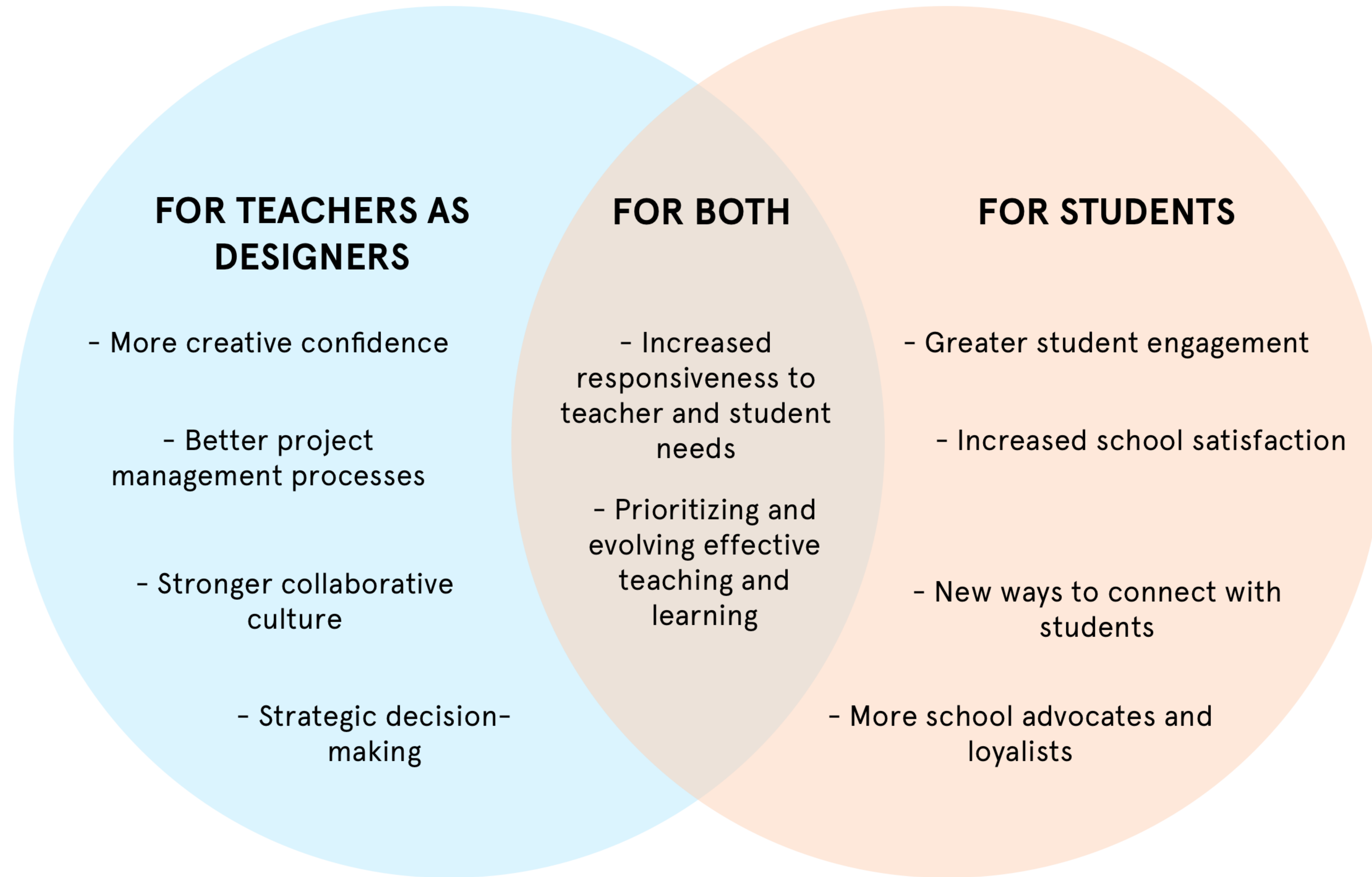
### THE ROLE

While learning the design thinking process, teachers also teach it to students, and model for them the processes, mindsets, and skills needed to become changemakers.

### Expectations

- Attend d.school trainings
- Participate in PD
- Teach d.lab
- (With more experience) Lead PD

# Why Is This Valuable For Teachers?



## VALUE OF DESIGN THINKING

Beyond uncovering solutions to the challenges you face on a day-to-day basis, practicing design thinking will also help d.tech develop a new way of working. Design thinking starts by engaging users, be it students or other staff, but from there it ripples through the school and provides numerous benefits for both Teachers as Designers and for students.

## NOTES

### IDEAS

### QUESTIONS:

### MISCELLANEOUS:

## NOTES

### IDEAS

### QUESTIONS:

### MISCELLANEOUS:

# What is the Playbook?

## THE PLAYBOOK IS NOT

- ✗ A guide for teaching design thinking in d.Lab
- ✗ A be-all-end-all guide to design thinking
- ✗ A silver bullet for instantly becoming a design thinker

## INSTEAD, THE PLAYBOOK IS...

- ✓ A preview of what design thinking is practiced by d.tech staff as a process for improving the school
- ✓ A collection of tested methods, mindsets, and practices that work specifically at d.tech
- ✓ A support in your learning journey (especially because we don't expect you to be experts right away!)

## PLAYBOOK USE CASES



### NEW STAFF

Learn the Design Thinking process and how it is used at d.tech.



### EXPERIENCED STAFF

Facilitate the Design Thinking process for new staff.



### EDUCATION COMMUNITY

Learn and apply d.tech's best practices in their own schools.



# What Happens In a Design Sprint?

## DEFINITION

Stanford d.school's K12 Lab developed a 6-week Design Sprint to help schools use the Design Thinking process to get started, get unblocked, and develop new directions for their various change management initiatives. The sprint is simply a series of steps that alternately flare and focus. We'll start by working with the leadership team to determine a specific challenge to work on. Then we'll expand our understanding of the space by engaging with users like students and teachers. We'll then focus by refining our problem statement. After that, we'll explore many possible solutions to this problem in the ideation phase. We'll focus again by deciding on one to three solutions to explore in depth. We'll then prototype and validate the ways those ideas can manifest by getting feedback from our users. Finally, we'll create a plan for rolling out the solutions at d.tech, usually in the form of tools, professional development for staff, and systems.

## PRE-WORK

WEEKS -2,-1



Topic Selection

## DESIGN THINKING PROCESS

EXPLORE: WEEKS 1,2



Notice



Empathy



Define

FLARE

FOCUS

CREATE: WEEKS 3, 4



Ideate



Prototype

FLARE

FOCUS

LEARN: WEEKS 5, 6



Test



Share

## POST-WORK

WEEKS TBD



Solution Rollout

## NOTES

### IDEAS

### QUESTIONS:

### MISCELLANEOUS:

## NOTES

### IDEAS

### QUESTIONS:

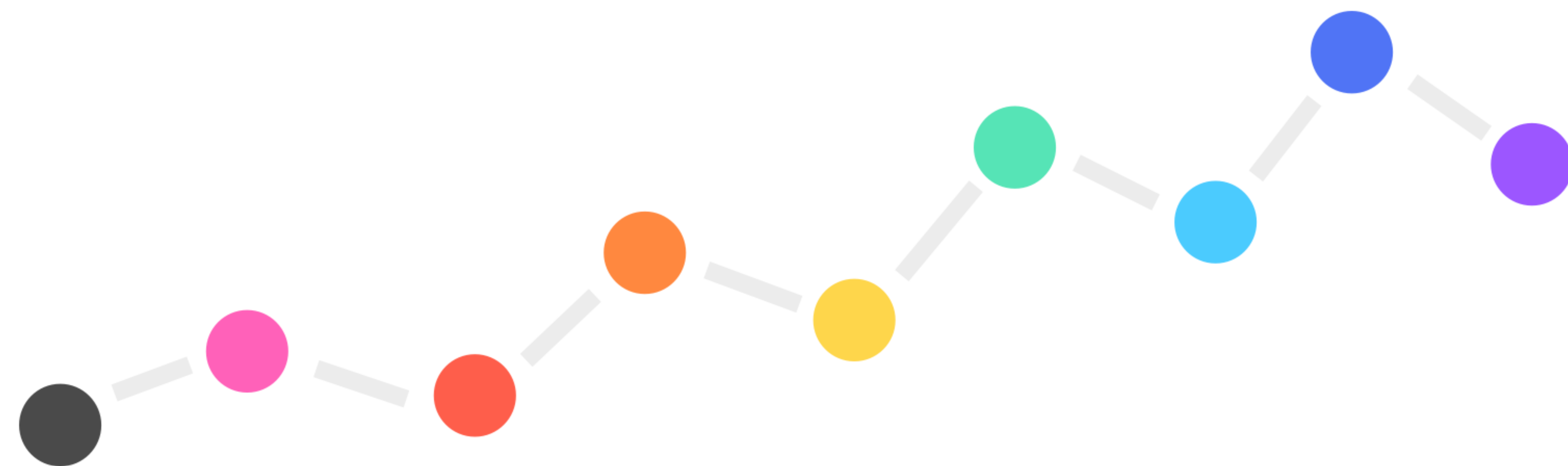
### MISCELLANEOUS:

# Expectation vs. Reality

## STRAIGHTFORWARD VS. MESSY

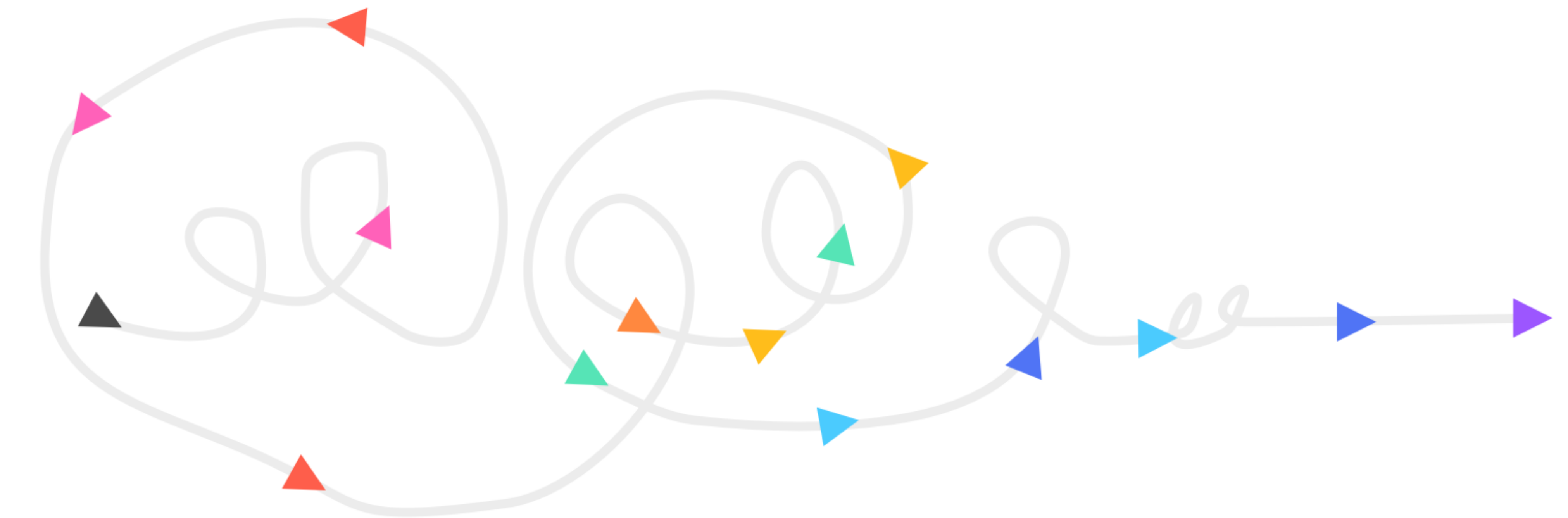
Although the previous graphic showed the Design Thinking process as linear, it is in practice very cyclical, iterative, and messy - and that's okay! The reason why it's non-linear is because throughout the process, we are constantly crafting clarity by testing assumptions and "squeezing" out risk (imagine squeezing dry a soaked towel). Sometimes an overturned assumption will require us to revisit Empathy to learn more, or a mis-scoped challenge might need to be narrowed down, or opened up further. This is all to be expected!

## EXPECTATIONS



- Linear
- Predictable
- Simple

## REALITY



- Cyclical
- Ambiguous
- Complex

# Mindsets

## DEFINITION

When practicing Design Thinking, it is very much like learning how to ride a bike. You can read about biking but until you sit on the bike, fall, and get back up again, you won't develop the muscle memory. Likewise, until you practice the methods, you won't experience the difference between "just" following the script vs. embodying the hard-to-observe yet critical mindsets required for successfully developing a practice of design thinking. Below are the mindsets that we habitually practice, and they will be referenced extensively throughout the playbook to explicitly call out which ones you'll use for each method. Note: These mindsets are not mutually exclusive, and many overlap!



### FOCUS ON HUMAN VALUES

Identify real user pain points and ground solutions in their needs; no pet ideas!



### RADICAL COLLABORATION

Breakthrough insights come from diverse backgrounds and viewpoints!



### BE VISUAL

Diagram, sketch - always aim to visualize your ideas & concepts to create clarity



### BIAS TOWARDS ACTION SHOW DON'T TELL

Come up with solutions, not problems. Prototype to learn vs pontificating.



### DEFER JUDGMENT YES AND (BUILD ON OTHERS' IDEAS)

Trust is the fertile soil for creativity; imagine first, evaluate after.



### CRAFTING CLARITY EMBRACE EXPERIMENTATION

Ambiguity is inherent in the creative process; run experiments to learn

## NOTES

### IDEAS

### QUESTIONS:

### MISCELLANEOUS:

*Pre-Design Thinking*

# *Topic Selection*

**PRE-WORK**



Topic  
Selection

**DISCOVER**



Notice



Empathy



Define

**CREATE**



Ideate



Prototype

**LEARN**



Test



Share

**POST-WORK**



Solution  
Rollout

# Sprint Topic Brainstorm

## DEFINITION

To decide what to work on in the next Sprint, we often gathered d.tech staff during Intersession PD to brainstorm some topics. Unlike the Brainstorm used later in Ideate, this one is focused on topics and not solutions. Therefore the guidelines are differ; specifically the ideas generated are not meant to be wild solutions but more focused on tangible needs the school, teachers, or students have that could benefit from a design sprint.

**TIME:** 10 minutes

## MINDSETS

- Defer Judgment
- Yes And

## TOPICS FOR DIFFERENT USERS

 STUDENT



 TEACHER



 COMMUNITY



**TIP:** You don't have to have ideas for every user group. These are just suggested user groups to get the brainstorming started.

## NOTES

### IDEAS

### QUESTIONS:

### MISCELLANEOUS:

# NOTES

## IDEAS

## QUESTIONS:

## MISCELLANEOUS:

# Prioritizing with Dot Votes

### DEFINITION

Using the sprint ideas generated from the Sprint Topic Brainstorm, each staff member gets 1-3 dots to vote (to save resources, use a pen to mark a dot on a postit note to indicate a vote). After all the dots are put on the Post-it's, reorganize the sprint ideas in descending order. Save the list as a Sprint Backlog for future reference.

**TIME:** 5 minutes

### MINDSETS

- Bias Towards Action
- Radical Collaboration
- Crafting Clarity

### TOPIC #1



### TOPIC #2



### TOPIC #3



# *Design Thinking* **Notice**

## PRE-WORK



Topic  
Selection

## DISCOVER



Notice



Empathy



Define

## CREATE



Ideate



Prototype

## LEARN



Test



Share

## POST-WORK



Solution  
Rollout

# NOTES

## IDEAS

## QUESTIONS:

## MISCELLANEOUS:

# Values / Constraints / Gaps

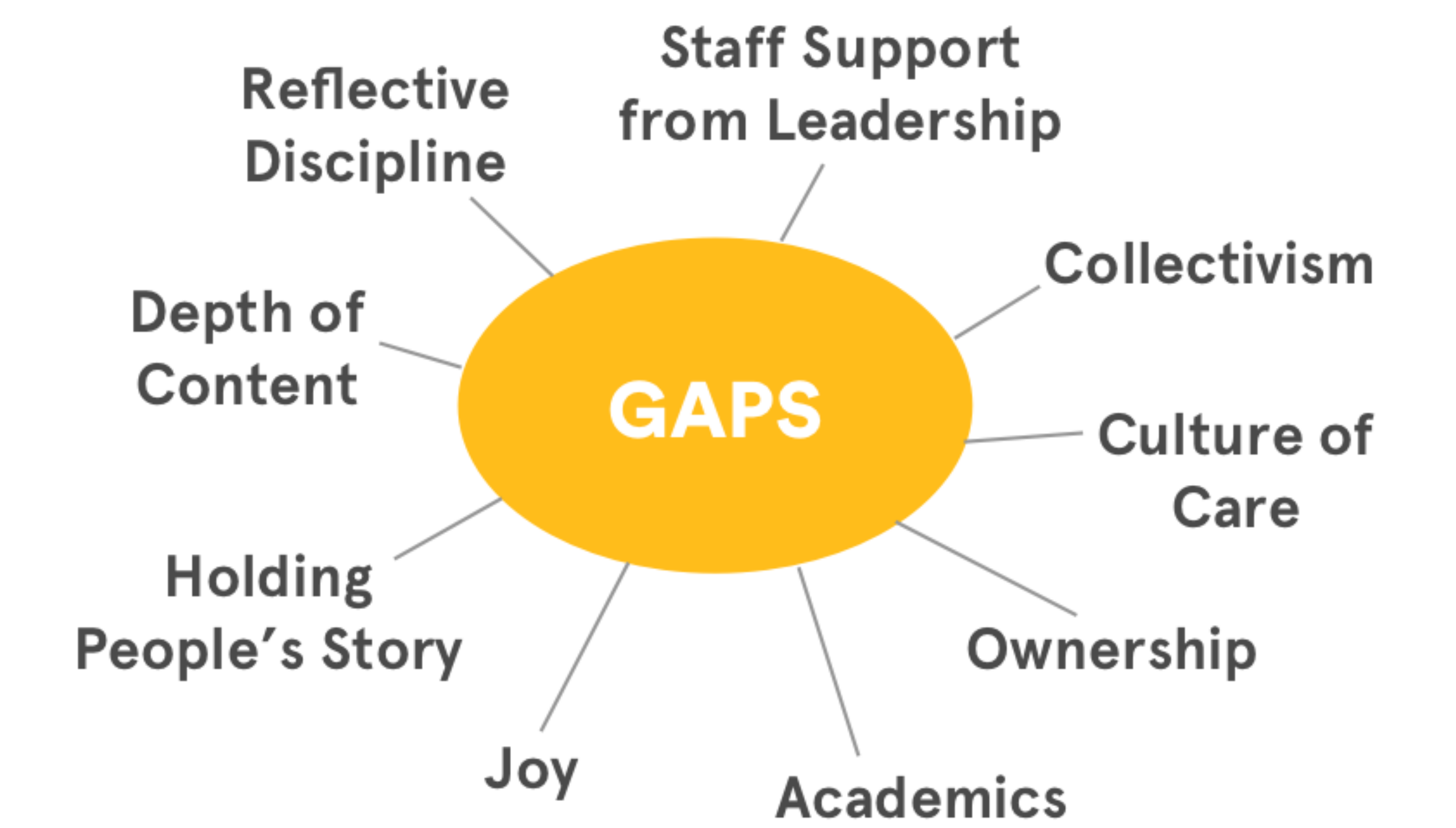
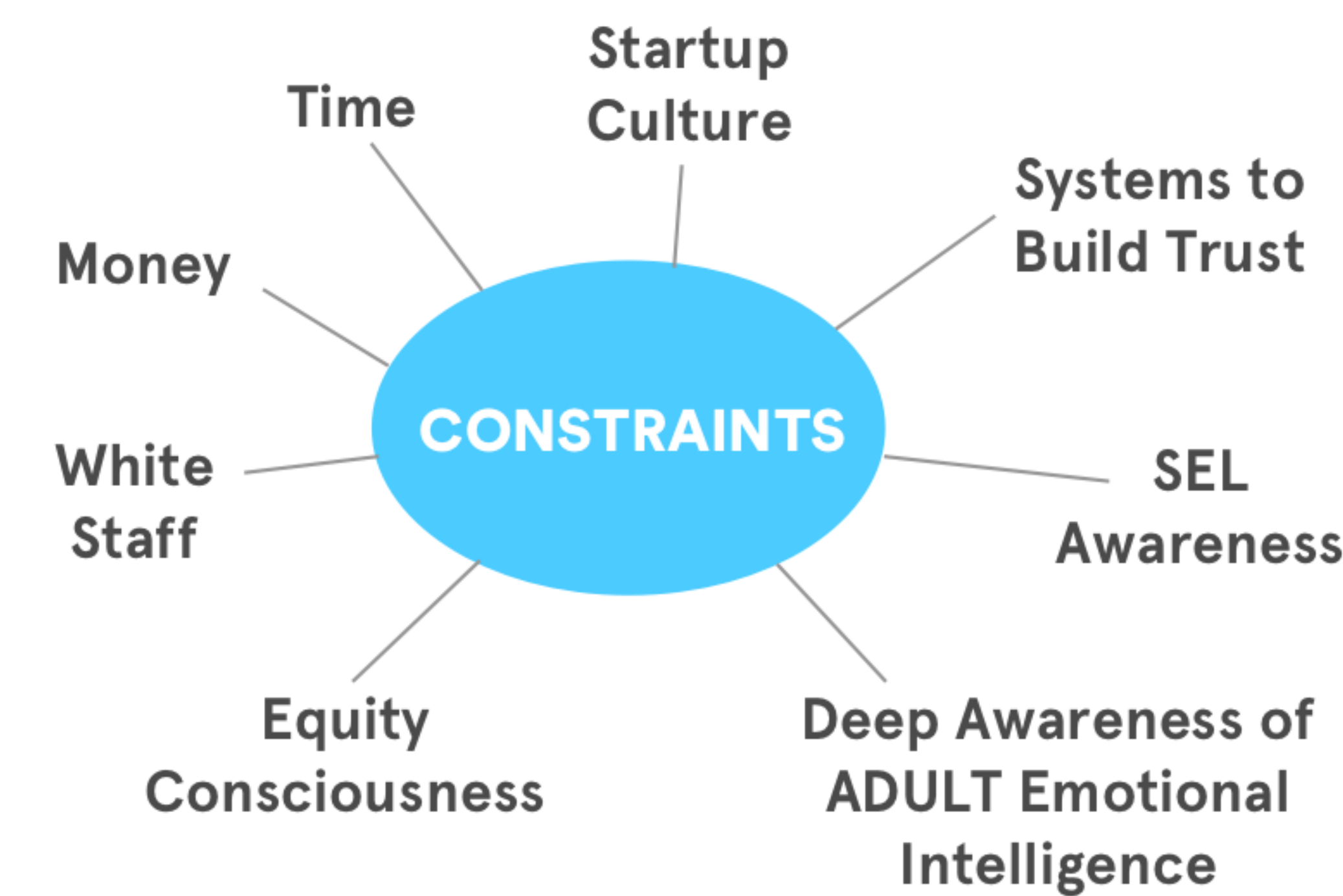
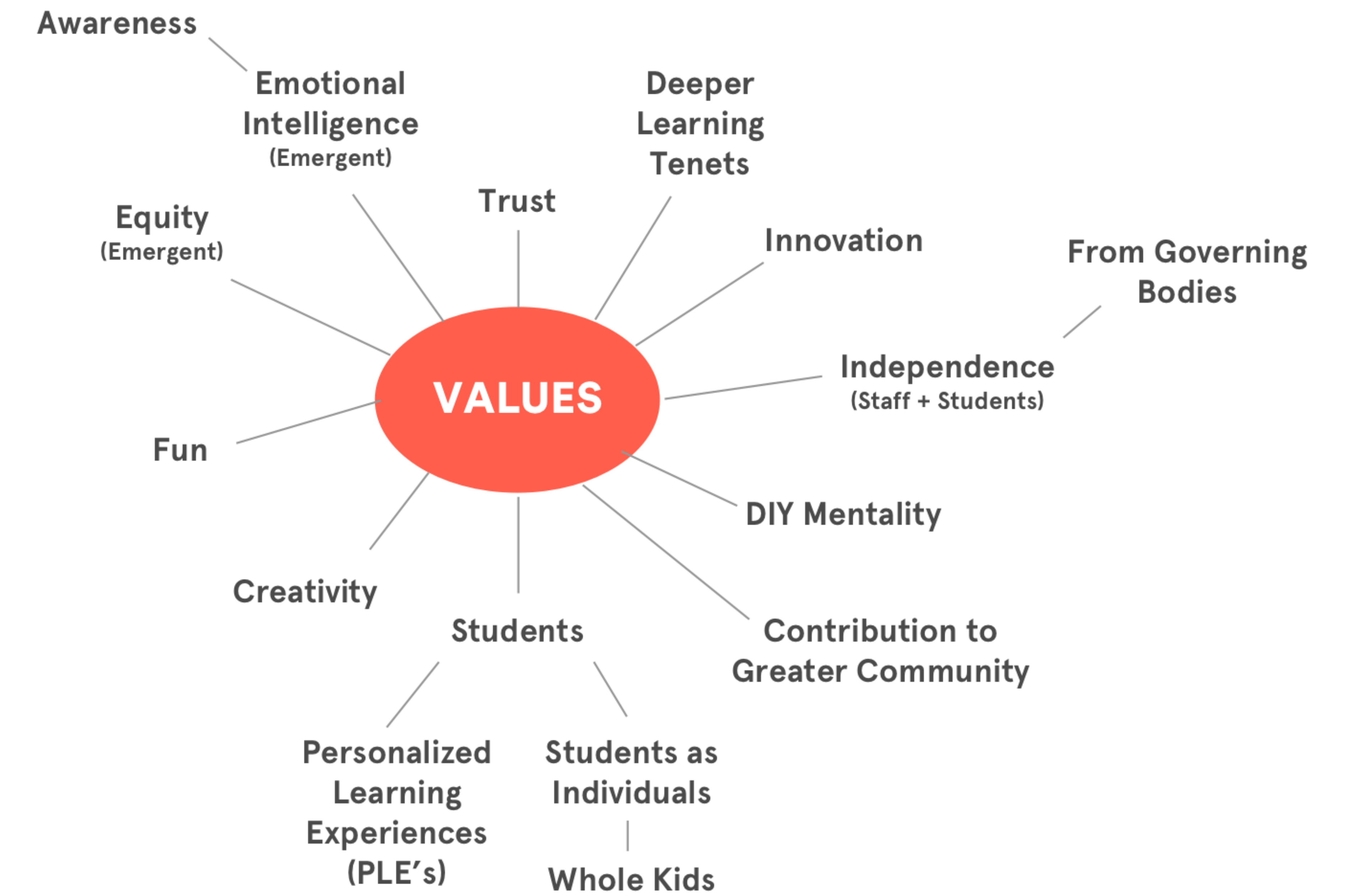
### DEFINITION

Before beginning a Sprint, it's important to acknowledge the Teacher Designers' beliefs & biases and understand their impact on the Sprint. Start by drawing three large bubbles, and allowing participants to freely add terms as they see fit.

**TIME:** 15 minutes

### MINDSETS

- Crafting Clarity
- Focus on Human Values
- Radical Collaboration





# Assumption-Storm

## DEFINITION

In every Design Sprint, the problem statement may contain words or jargon that need to be defined and unpacked. The assumption-storm is a tool to do that. The goal is to break down loaded words & phrases like “Presentation of Learning”(Sprint 1), “Personalization” (Sprint 2), “Whole Student” (Sprint 3) into their atomic parts that even a 5th grader can understand.

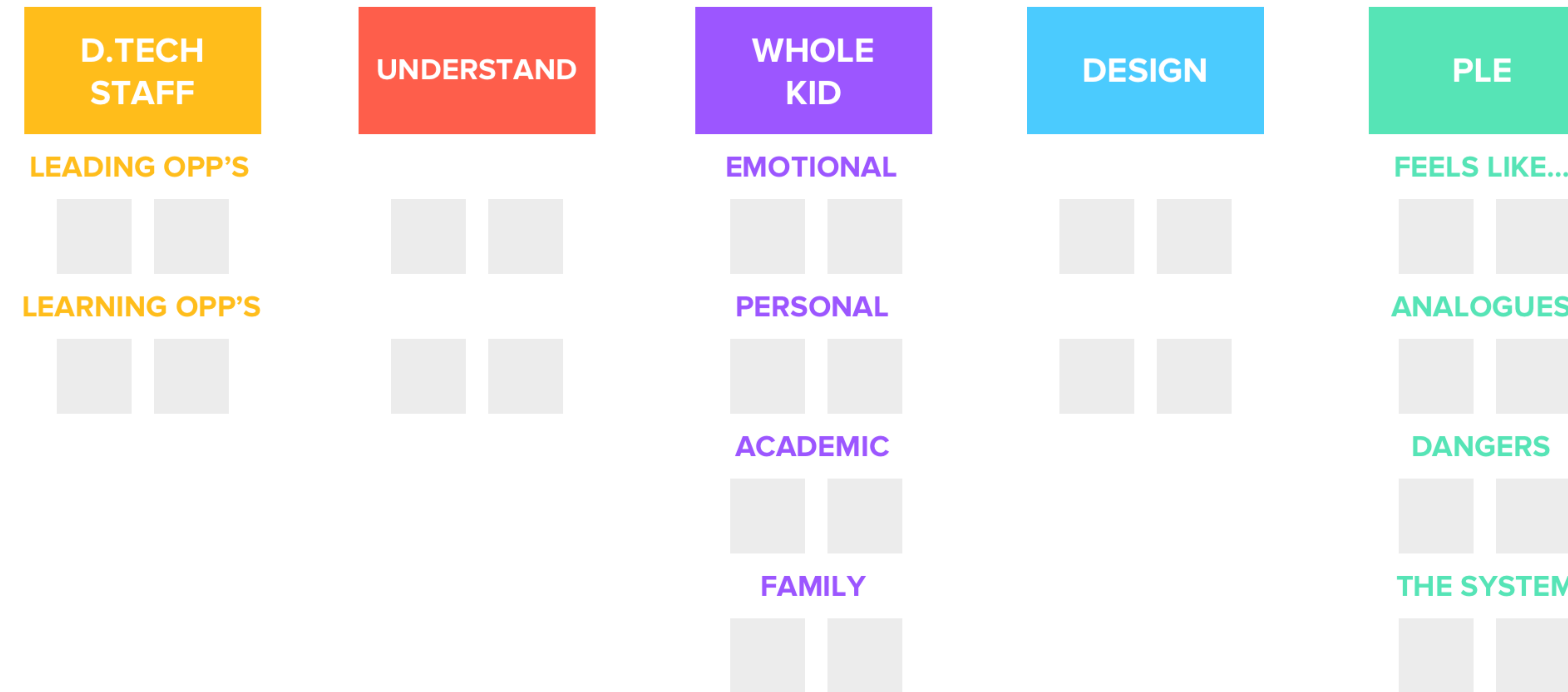
**TIME:** 15 minutes

## MINDSETS

- Crafting Clarity

## UNPACKING TERMS

HMW help **D.TECH STAFF** to **UNDERSTAND** "the **WHOLE KID**" and translate that to **DESIGN** a **PERSONALIZED LEARNING EXPERIENCE (PLE's)**?



**TIP:** Use giant Post-It's for unclear terms (i.e. “Design”) and smaller Post-It's to break down the terms underneath. Sometimes it's useful to break down the unclear term into sub-categories (i.e. “Whole Student” → Emotional / Personal / Social / Academic), in which case different-colored giant Post-It's may come in handy as well.

## NOTES

### IDEAS

### QUESTIONS:

### MISCELLANEOUS:

# *Design Thinking* **Empathy**

## PRE-WORK



Topic  
Selection

## DISCOVER



Notice



Empathy



Define

## CREATE



Ideate



Prototype

## LEARN



Test



Share

## POST-WORK



Solution  
Rollout

# Choosing Your Users

## DEFINITION

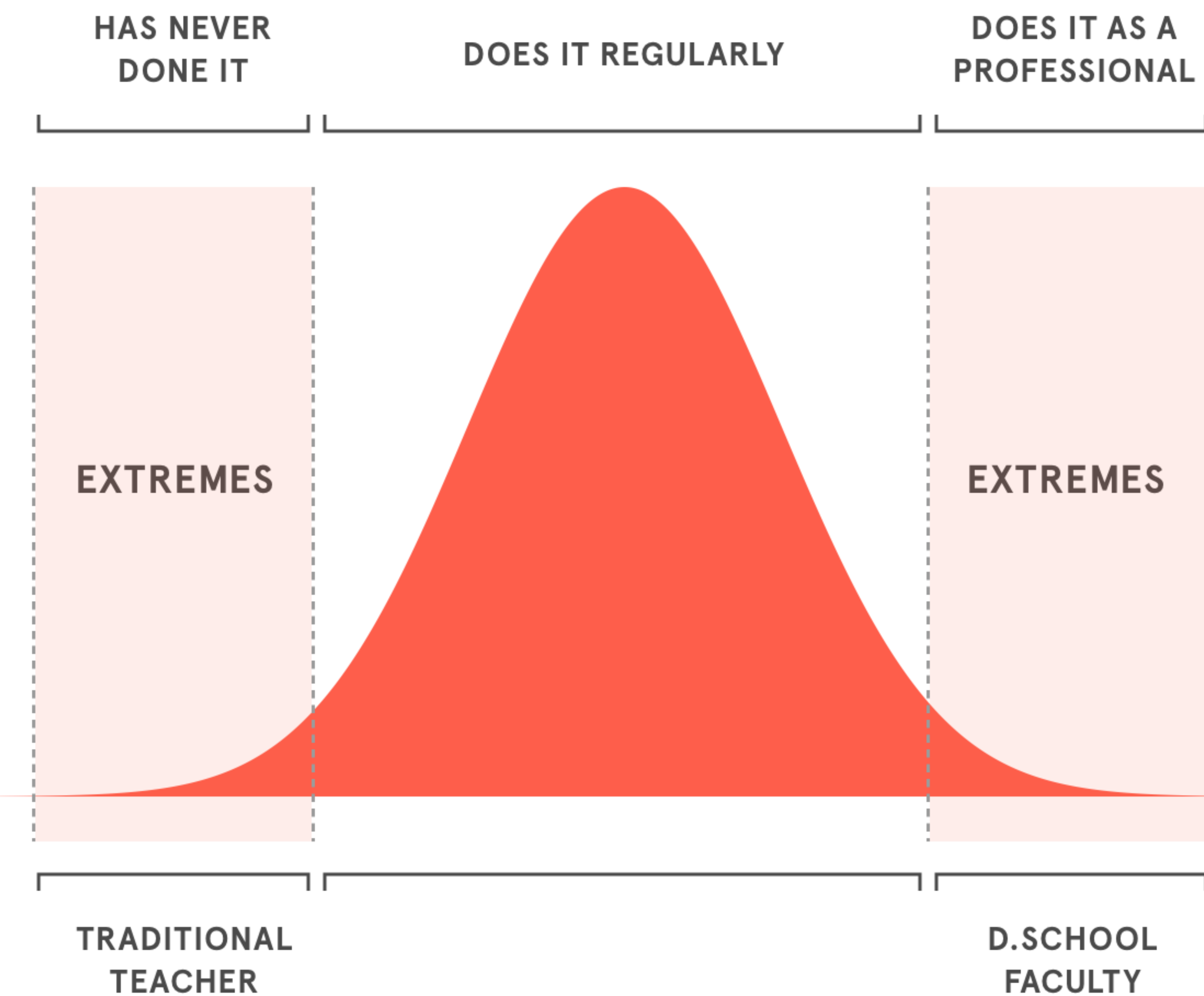
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**TIME:** 15 minutes

## MINDSETS

- Crafting Clarity

## LEARNING FROM EXTREMES



**NOTE:** Instead of looking at the “average” user, extreme users provide novel insights to your problem space. Ways to identify extremes:

- **Demographics:** age, gender, ethnicity
- **Behaviors:** experts vs. newbies
- **Motivations:** what drives a user to do something

## NOTES

### IDEAS

### QUESTIONS:

### MISCELLANEOUS:

# NOTES

## IDEAS

## QUESTIONS:

## MISCELLANEOUS:

# Analogous Research

### DEFINITION

Most of the design challenges we work on won't be unique problems, meaning others (especially in other domains and fields) are likely to have thought about it, and even have solved it for their context. It is useful to think about what existing solutions / frameworks exist already in other domains that we can learn from. Creativity comes from cross-pollinating ideas from different contexts!

**TIME:** Recommended to be done independently on own time

### MINDSETS

- Radical Collaboration

## INSPIRATIONS FROM DIFFERENT DISCIPLINES



### QUESTIONS TO ASK YOURSELF:

- Who else is already doing this in our space, and what can we learn from them?
- After doing an Assumption-Storm, what analogous fields / domains have related concepts / processes / tools that we can learn from?

# Interviewing

## DEFINITION

How do we know if we're actually solving users' needs? We talk to them! Interviewing is one of the most effective methods of Empathy. To effectively conduct interviews, we need to avoid Leading Questions, and we need to ask questions that move from Open-Ended to Specific to get the data we need. It is good to have a hunch of what your user(s) will say, but the goal of the interview is NOT to confirm our biases but to surprise us and enlighten us.

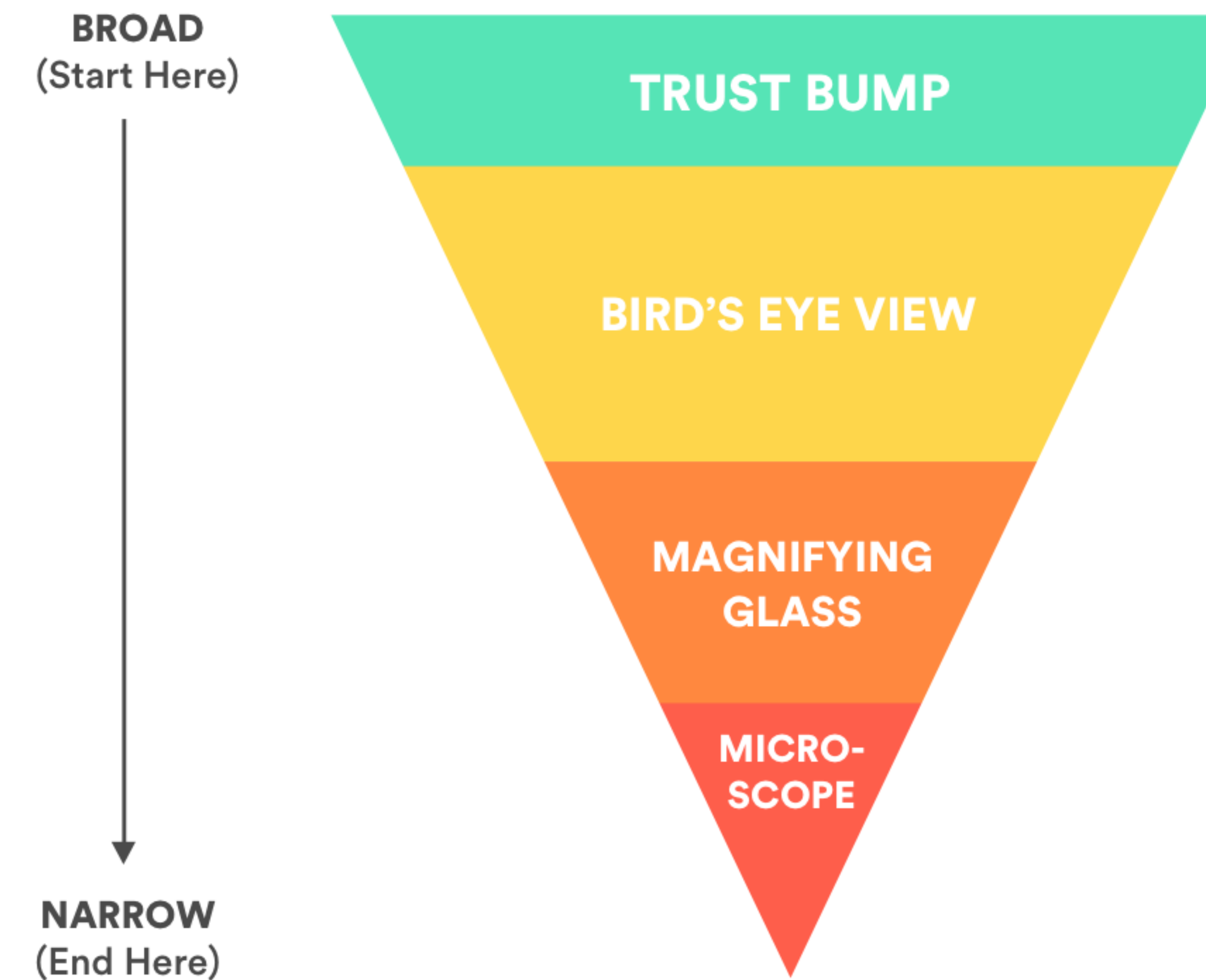
**TIME:** 30 minutes - 1 hour

## MINDSETS

- Focus on Human Values

**TIP:** Remember to SCHEDULE interviews with the individuals chosen from Choosing Your Users. Reach out to those individuals (i.e. email), get a confirmation time, mark it in your calendar, and send a Google Calendar invite.

## THE INTERVIEW LIFECYCLE



**Intent + Introductions**  
Tell me about your background in...

Tell me about the last time you...

Can you tell me more...  
Can you show me how you...

**5 Why's: Why do you...**  
Thank You's

## TIPS FOR SUCCESS

- **Allow for Pregnant Pauses:** don't fill silences; give them time to answer
- **Stay Unbiased:** don't correct, judge, refute, or challenge
- **No Leading Questions:** don't ask "what problems do you have"; instead ask open-ended questions and allow them to tell you
- **No Hypotheticals:** don't ask "would you use this" because in politeness the interviewee often gives a shallow yes
- **Pair Interview:** interview with another Sprint member to avoid the distraction of multi-tasking

## NOTES

### IDEAS

### QUESTIONS:

### MISCELLANEOUS:

# NOTES

## IDEAS

## QUESTIONS:

## MISCELLANEOUS:

# Shadowing

### DEFINITION

After conducting interviews, shadowing, and research, it is then time to synthesize your findings. The Empathy Map is a tool to take the sometimes vast and complex insights from your Empathy work and boils it down to digestible categories, which you will use to inform the Define stage after.

**TIME:** 15 minutes per interviewee; 1 hour for entire session

### MINDSETS

- Focus on Human Values
- Radical Collaboration

**TIP:** The logistics are often forgotten amidst the day-to-day responsibilities so remember to SCHEDULE shadowing with the individuals chosen in the previous step of Choosing Your Users. Reach out to those who may be affected by the shadowing ahead of time (i.e. a teacher whose class you need to sit in on)

## PRO OBSERVERS LOOK FOR:



What People Care About



Adaptations



Behavioral Prompts



Body Language



Patterns



The Unexpected

### WHAT TO NOTE

- **WHAT:** What are they doing? What sparks your curiosity
- **HOW:** How are they doing it? Are there any behaviors or objects involved?
- **WHY:** Why are they doing it?

**TIP:** Approach shadowing with an open and curious mind. Stay away from generalizations, judgment, evaluation, assumptions, and prescriptions (should/would/could).

**TIP:** When possible, it's best to conduct shadowing without the observee noticing to avoid the Hawthorne Effect (where observee changes behavior while being observed). If observing a student, sit in an area where he / she is in view without making it obvious that you are shadowing that particular student.

# Note Taking

## DEFINITION

In addition to asking questions, Interviewing or Shadowing also has a note-taking component. We generally recommend writing down whatever piques your curiosity rather than trying to transcribe word-for-word, but that free-form process may be intimidating. We've included some structure to reduce that ambiguity and hope over time you internalize what to look out for during interviewing / shadowing.

**TIME:** 30 minutes - 1 hour (depends on interview / shadow duration)

## MINDSETS

- Focus on Human Values
- Radical Collaboration

## WHAT TO CAPTURE NOTES ON



Interesting  
Quotes



Problems



Opportunities



Interpretations



Ideas



Insights

**TIP:** Always store your notes where you will remember. The next step requires all interviewers and shadowers to share their notes so don't lose them!

## NOTES

### IDEAS

### QUESTIONS:

### MISCELLANEOUS:

## NOTES

### IDEAS

### QUESTIONS:

### MISCELLANEOUS:

# Empathy Map

## DEFINITION

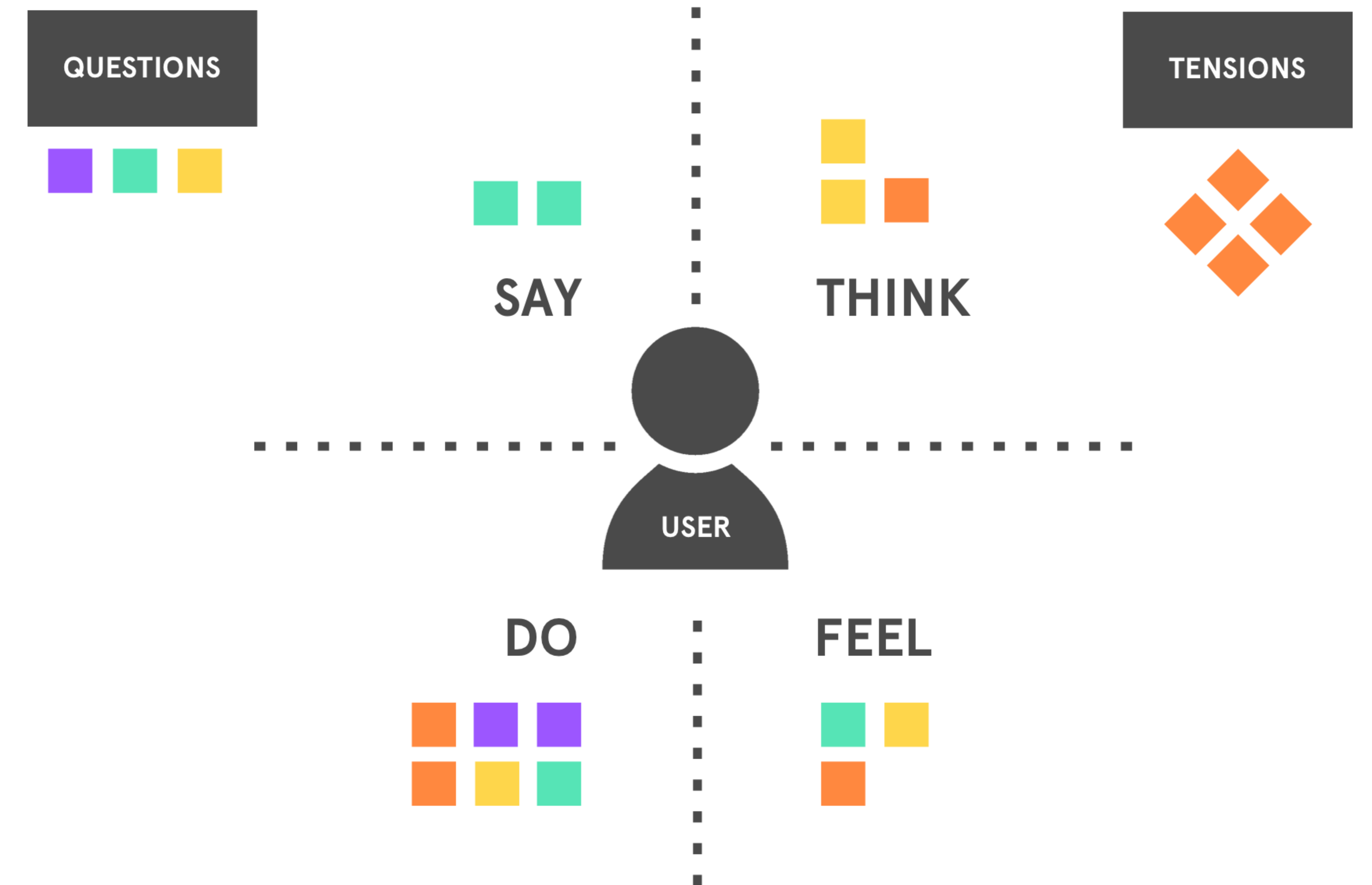
After conducting interviews, shadowing, and research, it is then time to synthesize your findings. The Empathy Map is a tool to take the sometimes vast and complex insights from your Empathy work and boils it down to digestible categories, which you will use to inform the Define stage after.

**TIME:** 15 minutes per interviewee; 1 hour for entire session

## MINDSETS

- Focus on Human Values
- Radical Collaboration

**TIP:** The facilitator's role is to 1) capture what the participants are sharing in Post-It notes; and 2) organizing those Post-It notes into the respective Empathy Map categories.



## NOTE

- **Questions:** are whatever sprint participants have on their mind while completing the Empathy Map
- **Tensions:** are a way to note competing needs. We rotate Post-It notes 45 degrees for a diamond shape to differentiate it from normal Post-It's. An example would be Student Needs vs. Teacher Needs or For All vs. For Some



*Design Thinking*

# Define

PRE-WORK



Topic  
Selection

DISCOVER



Notice



Empathy



Define

CREATE



Ideate



Prototype

LEARN



Test



Share

POST-WORK



Solution  
Rollout

## NOTES

### IDEAS

### QUESTIONS:

### MISCELLANEOUS:

# “How Might We” Question

## DEFINITION

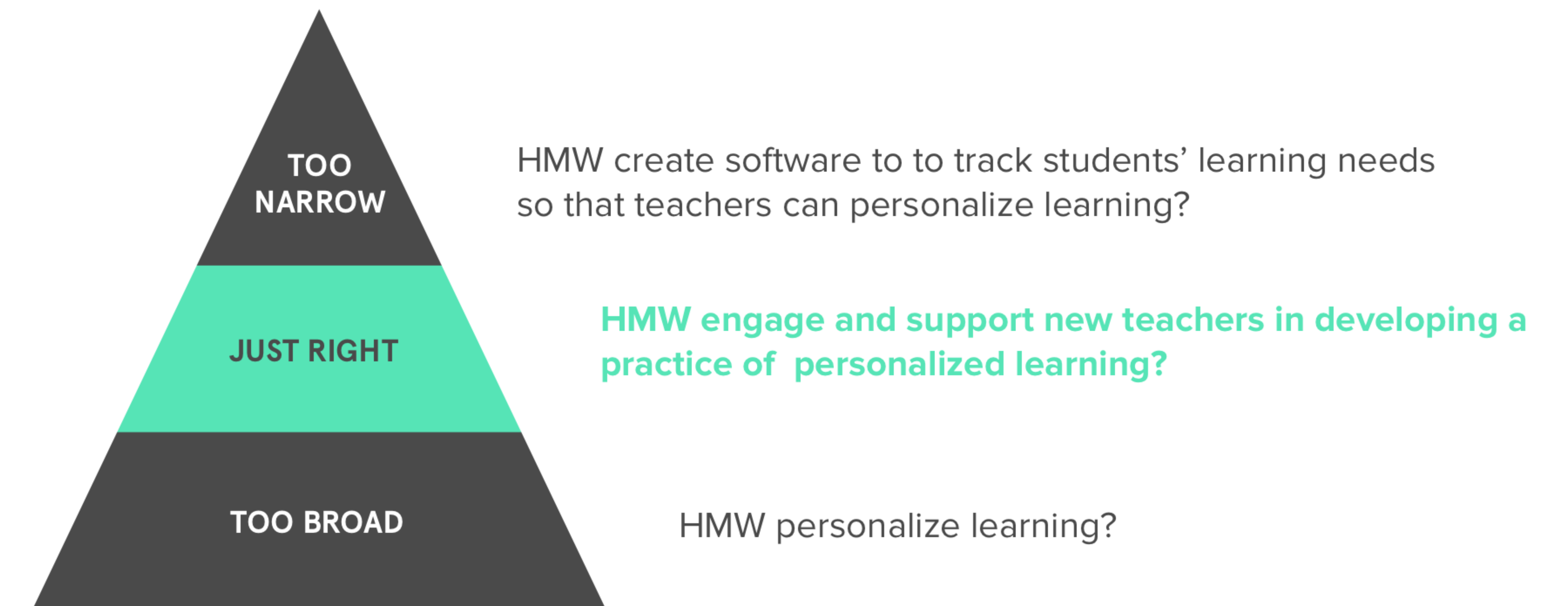
In every Sprint, properly scoping the challenge will ensure the creation of 1+ solutions that will solve the users’ identified problems. Questions are worded as “How Might We” because it encourages imagination, exploration and is ultimately solutions-oriented. The goal is to create a HMW question that feels exciting to work on as Teacher Designers, and that feels doable within a 6-8 week time frame.

**TIME:** Varies (10 minutes; but revisit as necessary)

## MINDSETS

- Bias Towards Action

## PROPER SCOPING: THE QUESTION PYRAMID



## GUIDELINES FOR A GOOD PROBLEM STATEMENT



**TIP:** Don’t be afraid to create multiple HMW questions, even if they only differ by a word or two. It’s important to create a question that gets the team excited to work on, so keep permuting until you find the right question.

# Frameworks

## DEFINITION

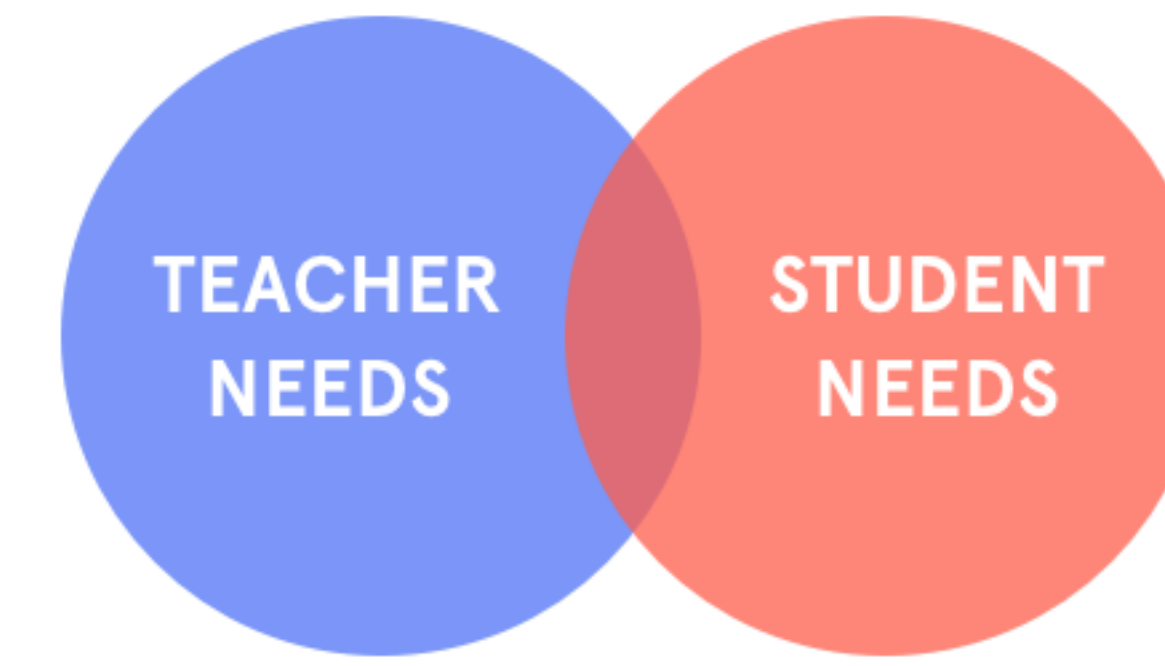
In order to communicate the insights gleaned from the Empathy phase, it is often useful to use visual diagrams like 2x2 graphs, relationship maps, and venn diagrams.

**TIME:** 15 minutes

## MINDSETS

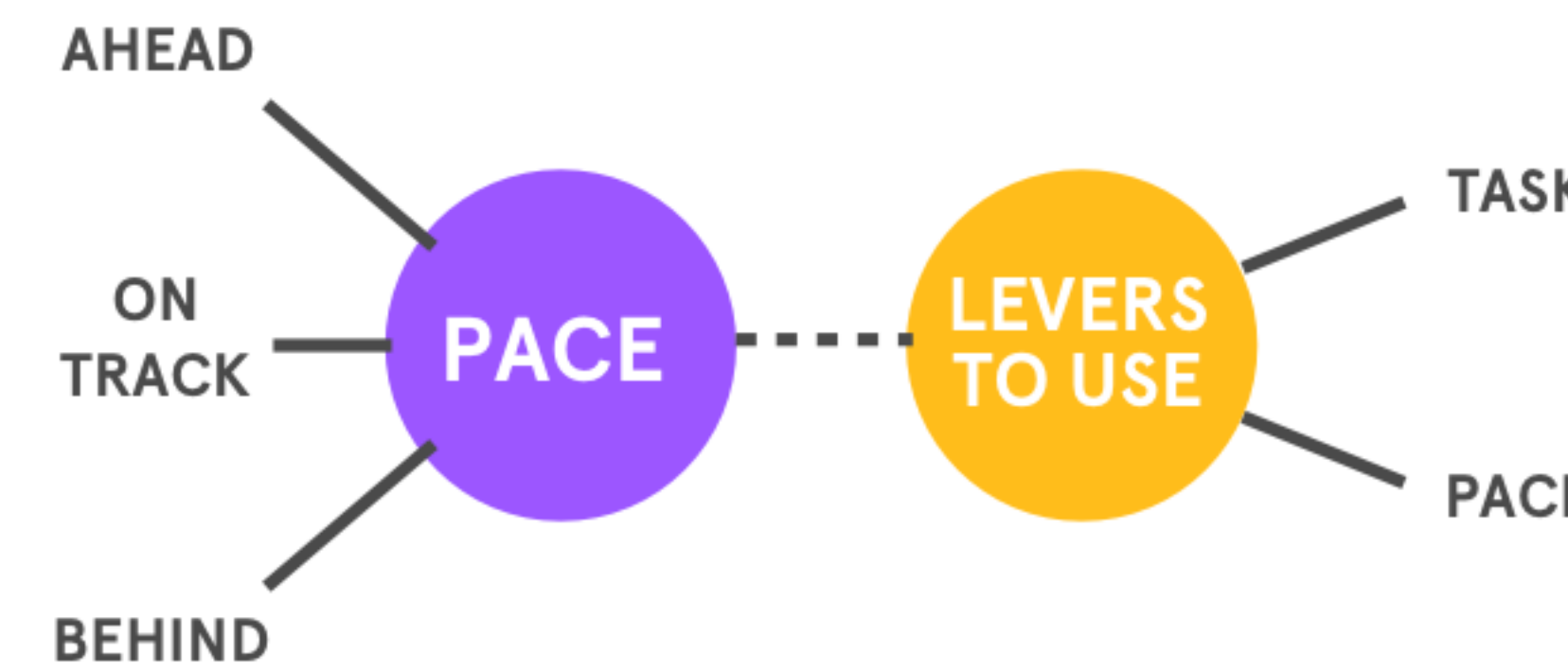
- Crafting Clarity
- Make It Visual

## VENN DIAGRAM



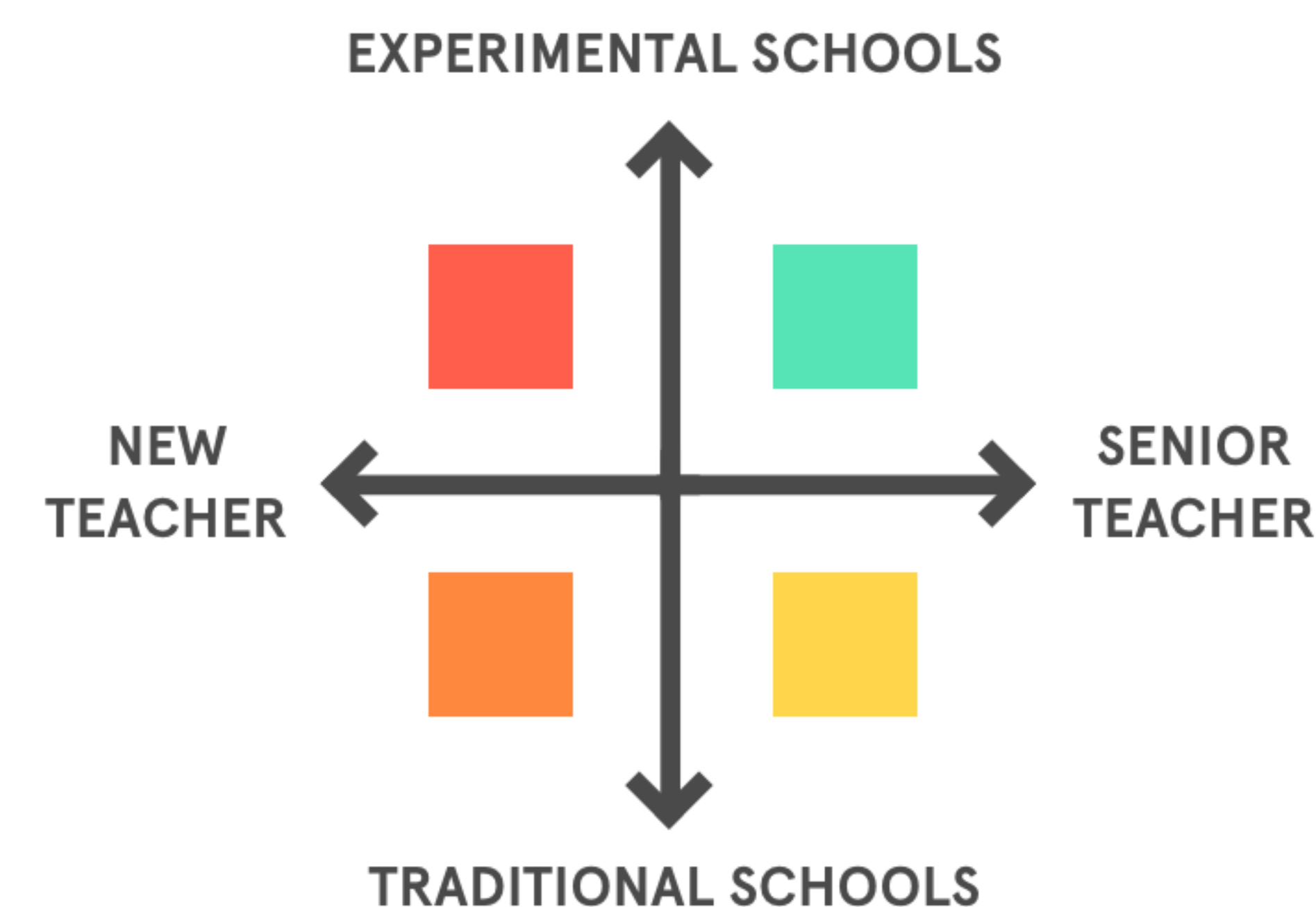
Venn Diagrams are a simple way to express relationships, and is suitable for communicating both differences and commonalities.

## RELATIONSHIP MAP



Relationship Maps are great for visualizing stakeholders or the flow in a process in connection to a larger system.

## 2x2 CHART



2x2 Charts help break down information into discrete properties and can point out tensions between categories.

## NOTES

### IDEAS

### QUESTIONS:

### MISCELLANEOUS:

*Design Thinking*

# Ideate

PRE-WORK



Topic  
Selection

DISCOVER



Notice



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Define

CREATE



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LEARN



Test



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POST-WORK



Solution  
Rollout

# Brainstorming

## DEFINITION

Brainstorming is a way of generating lots of ideas to be prototyped. We encourage you to think expansively without constraints. With careful preparation and a clear set of mindsets and guidelines, one brainstorm session can produce many ripe ideas.

**TIME:** 15 minutes

## MINDSETS

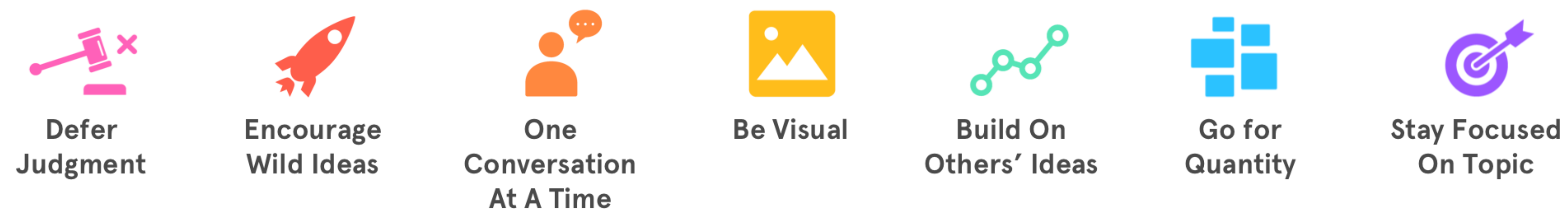
- Defer Judgment
- Make It Visual
- Radical Collaboration
- Yes And

## ENCOURAGING A WIDE RANGE OF IDEAS



**TIP:** Go for low-hanging fruit ideas to get started. Then try to imagine if you had less constraints. Finally, go for moonshot ideas - even wild, absurd ones!

## GUIDELINES FOR GREAT BRAINSTORMING



**TIP:** After collecting multiple feedback forms, remember to set up time to synthesize the themes and to qualify the feedback because not all feedback is actionable!

## NOTES

### IDEAS

### QUESTIONS:

### MISCELLANEOUS:

# NOTES

## IDEAS

## QUESTIONS:

## MISCELLANEOUS:

# Prioritizing Ideas

### DEFINITION

After brainstorming ideas, it's important to decide which ones to prototype. This may be difficult if there are a lot of good ideas to choose from. There are two primary methods we have found helpful: Ease vs. Impact is more formal whereas Pick Your Fancy is more loose.

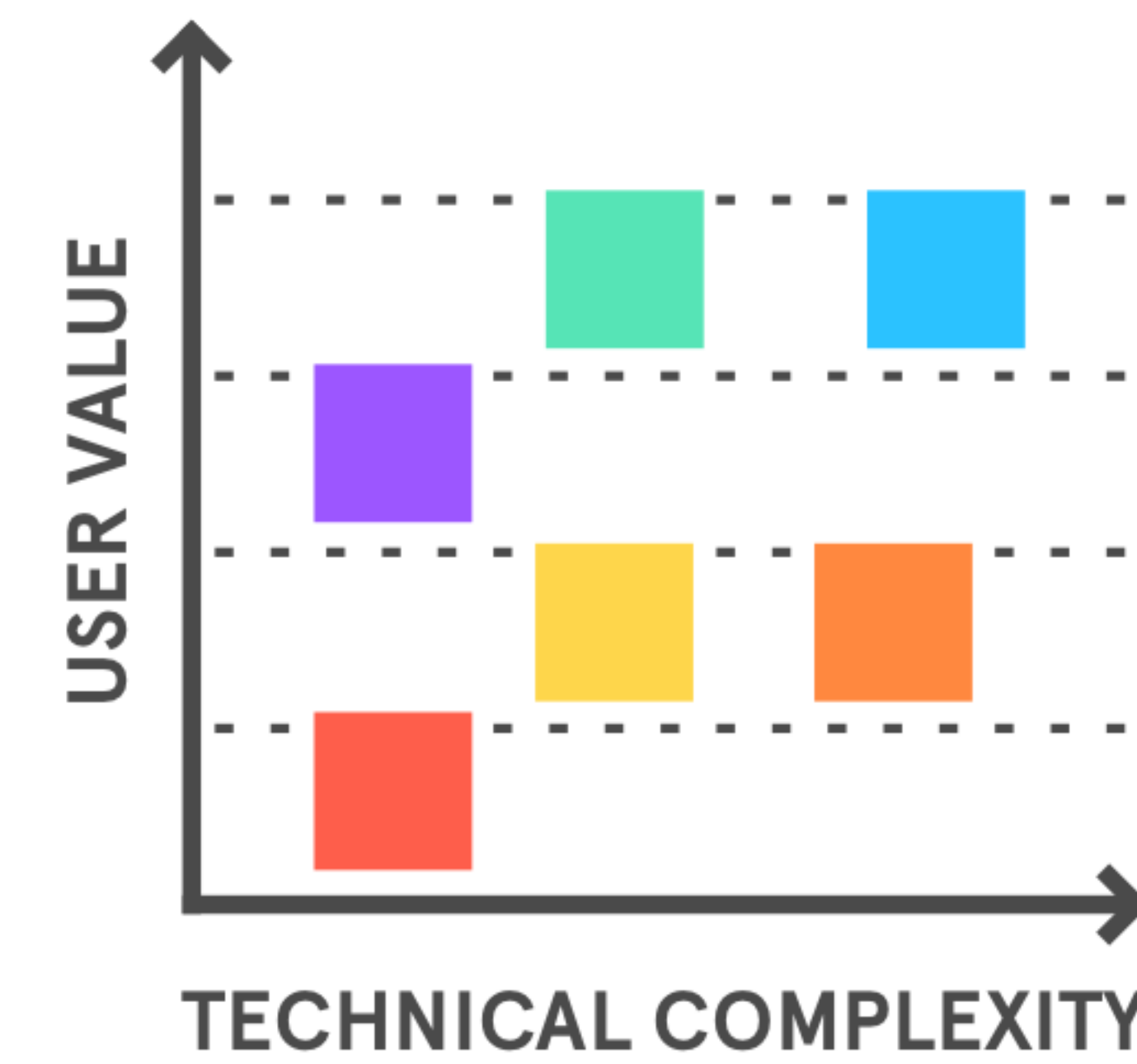
**TIME:** 5 minutes

### MINDSETS

- Bias Towards Action

**TIP:** Assign each Sprint member a prototype to work on and agree as a team when these prototypes need to be completed by. This ensures a Bias Towards Action, accountability, and sprint progress.

## METHOD ONE: EASE VS. IMPACT



**INSTRUCTIONS:** Draw a graph using 2 axes: Technical Complexity and User Value. Now organize your Brainstorm Post-It's by mapping them on this graph. It will become clear which ideas are low-hanging fruit, and which ones are harder to implement but still valuable.

## METHOD TWO: CHOOSE YOUR FANCY



**INSTRUCTIONS:** Choose the ideas that you are most excited about. Ask yourself "what do I want to prototype right NOW?"

*Design Thinking*

# *Prototype*

PRE-WORK



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Solution  
Rollout

# NOTES

## IDEAS

## QUESTIONS:

## MISCELLANEOUS:

# How to Prototype

## DEFINITION

To bring your ideas to life, d.tech Design Sprint leaders have discovered several common prototypes that have arisen from the past 3 sprints. The goal is to maximize your rate of learning by starting with low-fidelity artifacts or experiences that can elicit user feedback quickly, then slowly move on to higher fidelity prototypes to refine the solution. The design thinking process is not always linear, so don't be afraid to revisit previous steps to get more understanding of the user and your constraints!

**TIME:** 30 minutes - 1 hour (depends on prototype)

## MINDSETS

- Show Don't Tell
- Bias Towards Action
- Embrace Experimentation
- Crafting Clarity

## COMMON PROTOTYPES



Sketch



Meeting



Tool



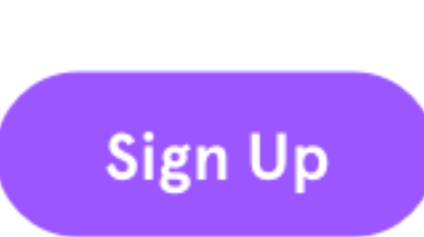
Activity



Plan

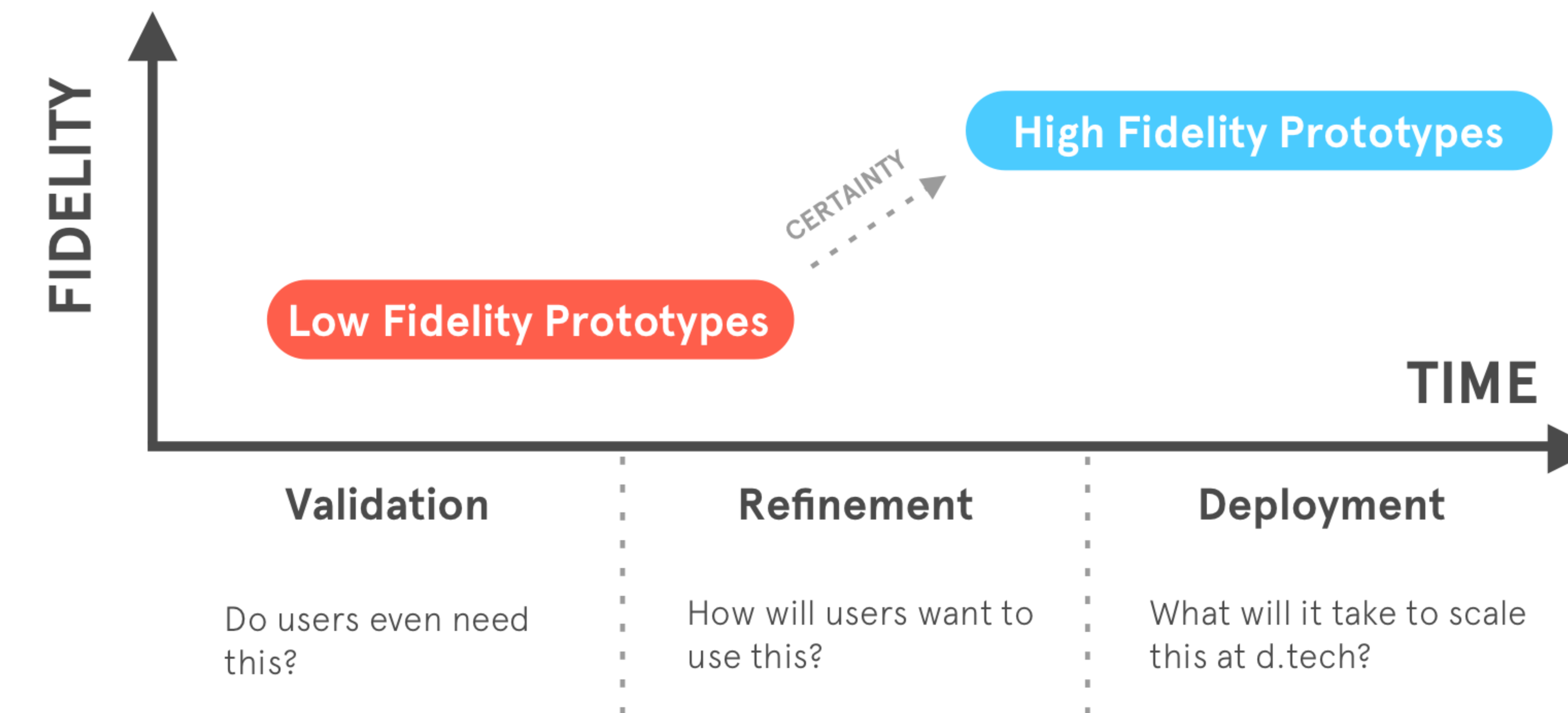


Google Form



Fake Ad

## FIDELITY AND LEARNING



**TIP:** Don't get discouraged if your prototype does not get adoption. Remember the design process is not about coming up with \*your\* brilliant ideas but for solving users' real needs. This is not a reflection of you as a Teacher Designer, so keep learning!



# Testing Card

## DEFINITION

In order to be intentional about our prototypes, it is important to note the hypotheses we have (assumptions we are making), the questions we are trying to answer, and the pass/fail condition(s) for the prototype. By having these three things in mind, prototypes can be an excellent way to learn. To use the card, fill one out per prototype by simply following the prompts.

**TIME:** 10 minutes

## MINDSETS


- Bias Towards Action
- Embrace Experimentation
- Crafting Clarity

### Test Card

Test Name	Deadline
Assigned to	Duration







STEP 1: HYPOTHESIS

**We believe that**

Critical: 




STEP 2: TEST

**To verify that, we will**

Test Cost:    Data Reliability:   

STEP 3: METRIC

**And measure**

Time Required:   

STEP 4: CRITERIA

**We are right if**

**TIP:** Even though this step may feel tedious, it is extremely important because Test Cards will help you track ongoing solutions & interventions later. Without doing so, you will not be able to keep track of progress or know when to close a project.

## NOTES

### IDEAS

### QUESTIONS:

### MISCELLANEOUS:

# *Design Thinking*

# **Test**

PRE-WORK



Topic  
Selection

DISCOVER



Notice



Empathy



Define

CREATE



Ideate



Prototype

LEARN



Test



Share

POST-WORK



Solution  
Rollout

# Feedback Form

## DEFINITION

In order to know if our prototypes solve users' needs, we need to gather feedback. To make that easier for you, we designed a Feedback Form.





**TIME:** 30 minutes - 1 hour (depends on prototype)

## MINDSETS

- Show Don't Tell
- Embrace Experimentation
- Crafting Clarity

**TIP:** After collecting multiple feedback forms, remember to set up time to synthesize the themes and to qualify the feedback because not all feedback needs to be acted on!

FEEDBACK FOR: <PROTOTYPE NAME>

 THINGS I LIKE MOST	THINGS THAT CAN BE IMPROVED 
 THINGS I DON'T UNDERSTAND	NEW IDEAS TO CONSIDER 

## NOTES

### IDEAS

### QUESTIONS:

### MISCELLANEOUS:

## NOTES

### IDEAS

### QUESTIONS:

### MISCELLANEOUS:

# Learning Card

## DEFINITION

In order to be intentional about our prototypes, it is important to note the hypotheses we have (assumptions we are making), the questions we are trying to answer, and the pass/fail condition(s) for the prototype. By having these three things in mind, prototypes can be an excellent way to learn. To use the card, fill one out per prototype by simply following the prompts.

**TIME:** 10 minutes

## MINDSETS

- Bias Towards Action
- Embrace Experimentation
- Crafting Clarity

## Learning Card

Test Name

Date of learning

Person responsible

### STEP 1: HYPOTHESIS

**We believed that**

### STEP 2: OBSERVATION

**We observed**

Data Reliability:



### STEP 3: LEARNINGS AND INSIGHTS

**From that we learned that**

Action required:



### STEP 4: DECISIONS AND ACTIONS

**Therefore, we will**

**TIP:** Remember to create a Learning Card after each prototyping / testing session with users to capture any insights into their behaviors, use cases, and needs.

*Design Thinking*

# Share

**PRE-WORK**



Topic  
Selection

**DISCOVER**



Notice



Empathy



Define

**CREATE**



Ideate



Prototype

**LEARN**



Test



Share

**POST-WORK**



Solution  
Rollout

# NOTES

## IDEAS

## QUESTIONS:

## MISCELLANEOUS:

# Sharing the Sprint

### DEFINITION

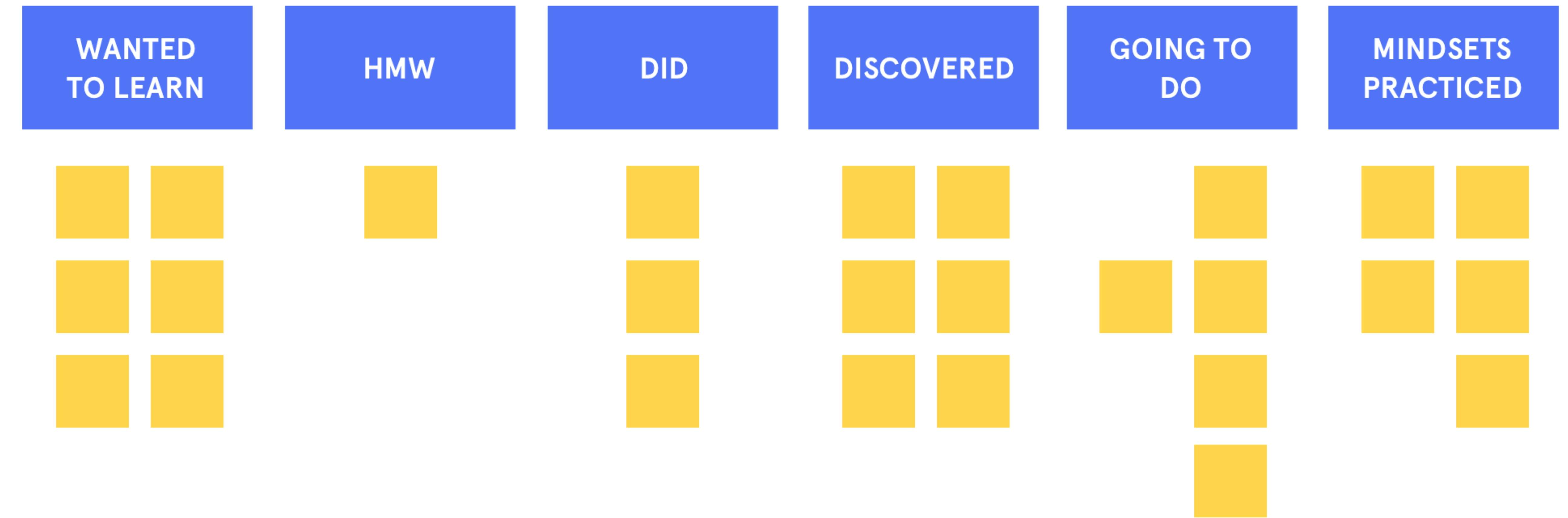
An important but often-forgotten part of the design thinking process is sharing what the team did / learned. In order for the solutions developed to have any real impact at d.tech, the design process must be communicated to the rest of the staff (and sometimes students).

**TIME:** 15 minutes

### MINDSETS

- Crafting Clarity

**NOTE:** QA with the audience is usually appreciated, so try to budget minimum of 5 minutes in the Share meeting.



### FRAMEWORK

- **Wanted to Learn**
- **HMW:** How Might We question
- **What We Did:** prototypes
- **Discovered :** needs, assumptions
- **Going to Do:** prototyping, testing, deployment
- **Mindsets Practiced**

# Journey / Story Map

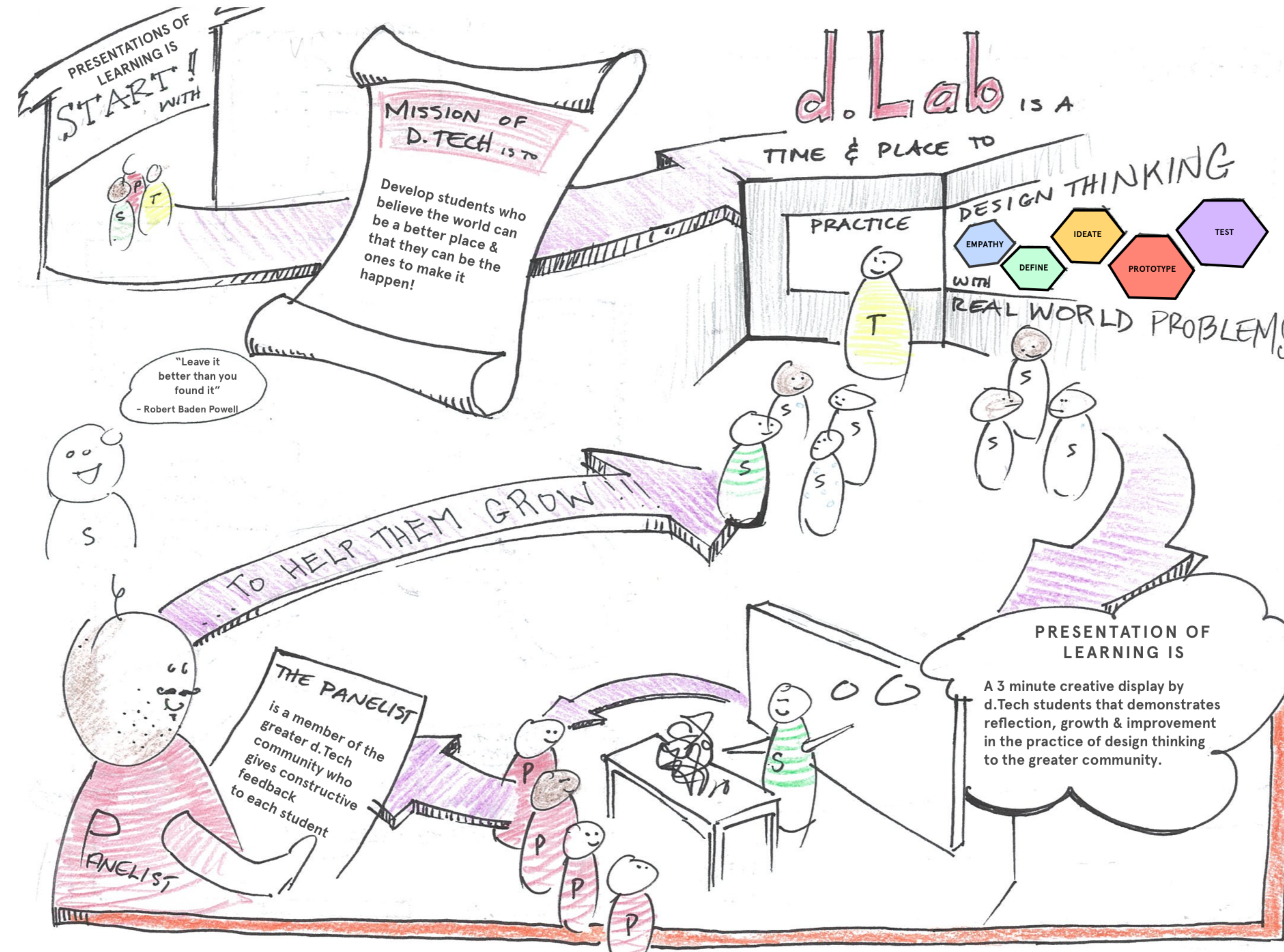
## DEFINITION

Visual storytelling is a powerful way of sharing the work done in a sprint. Remember the goal is not to be Picasso; rather, the goal is to visualize to the best of your abilities the pivotal moments throughout a sprint. Stick figures are welcome.

**TIME:** 10 - 15 minutes

## MINDSETS

- Crafting Clarity



## NOTES

### IDEAS

### QUESTIONS:

### MISCELLANEOUS:

*Post-Design Thinking*

# *Solution Rollout*

PRE-WORK



Topic  
Selection

DISCOVER



Notice



Empathy



Define

CREATE



Ideate



Prototype

LEARN



Test



Share

POST-WORK



Solution  
Rollout



# Roadmap Co-Creation

## DEFINITION

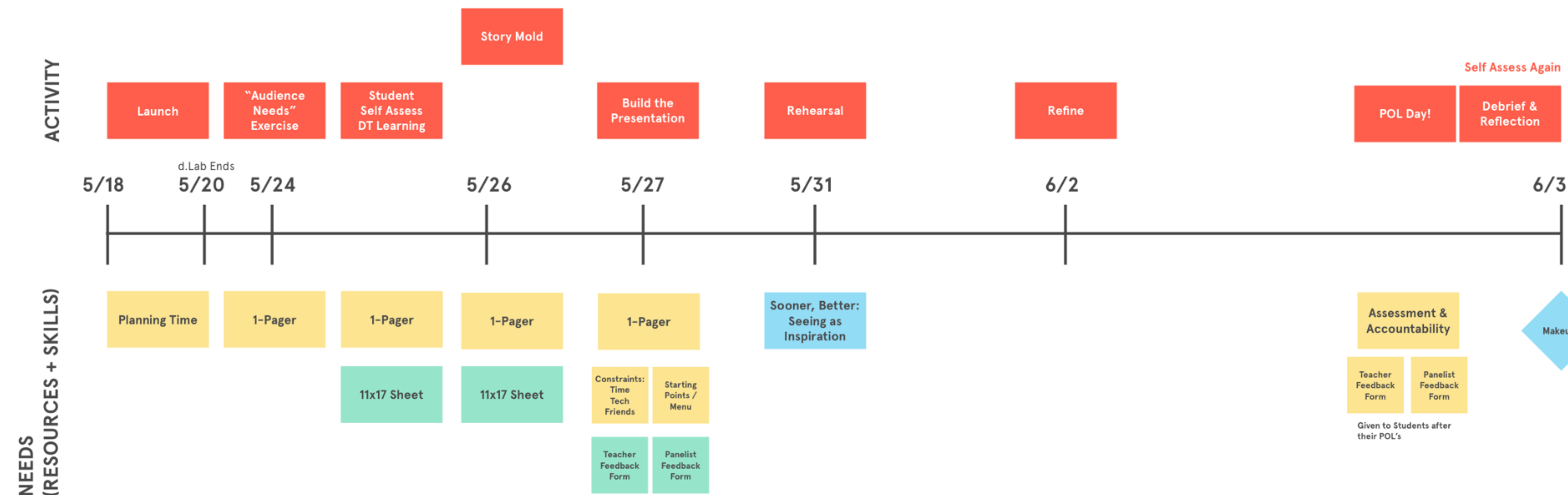
Once all the Sprint work is done, it's then time to create a timeline for rolling out the solutions. This is best done by scheduling with all staff present, so that dates and needs can be determined together.

**TIME:** 30 minutes

## MINDSETS

- Bias Towards Action
- Radical Collaboration
- Crafting Clarity

## Sprint 1 - POL Rollout Plan



## STEPS

- 1. Discuss Steps:** Discuss with Design Sprint team what are all the Steps needed to implement the prototypes at d.tech
- 2. Distribute Materials:** Write those Steps in Giant Post-It's and at the start of the staff meeting, distribute the Post-It's to different staff in the room
- 3. Create Milestones:** Have the staff discuss how to sequence the steps in accordance with milestone dates (determined by Design Sprint team)
- 4. Identify Needs:** Have all participants share their Needs in order to execute / implement those Steps (i.e. what resources, tools, and skills would they need). Use different colored Post-It's for Resources, Skills, and Tools.
- 5. Documentation:** Take a picture of the Roadmap and digitize it.

## NOTES

### IDEAS

### QUESTIONS:

### MISCELLANEOUS: