



**February 6, 2021**

**What is Design Thinking?  
A crash-course for educators**

**Danah Henriksen  
Punya Mishra**

## **Before we start:**

- 1. Make a copy of this workbook by going to [links.asu.edu/sprint](https://links.asu.edu/sprint)**

- 1. Make it your own:**

***This workbook belongs to  
<TYPE YOUR NAME HERE>***

**Welcome to the**

**DESIGN**



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# Who we are



**Danah Henriksen**  
Associate Professor,  
Div. of Ed. Leadership & Innovation  
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**Punya Mishra**  
Associate Dean  
Scholarship & Innovation  
MLF Teachers College

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# Quick recap



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Every aspect of education is **designed**

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# Teachers are designers



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# Teachers are designers

of learning experiences



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**design thinking**  
**is STEAM?**

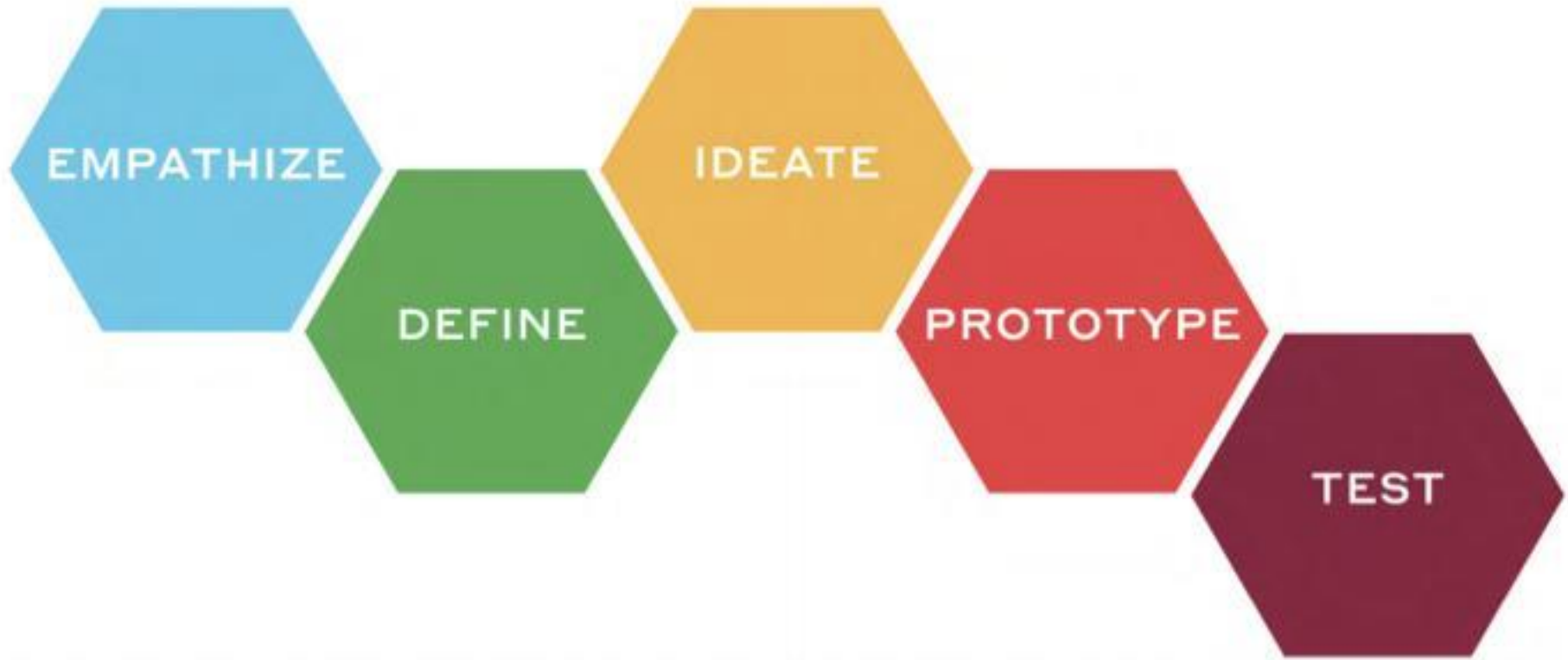


## Design thinking

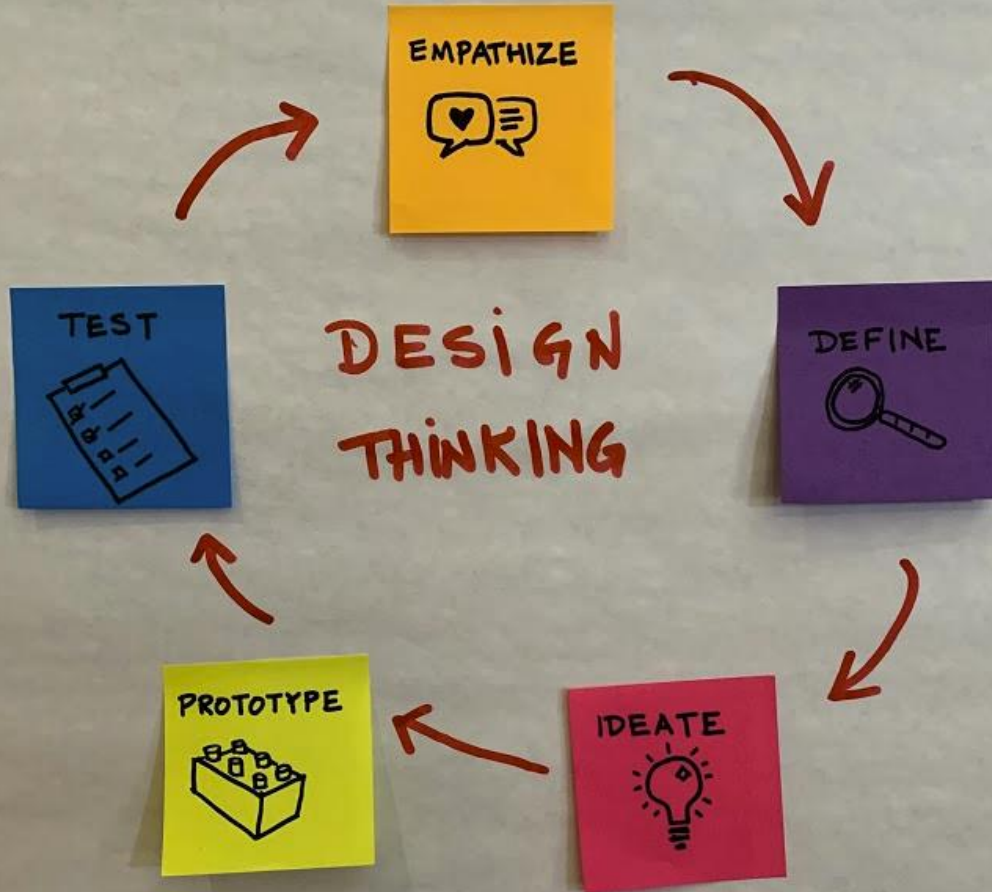
An purposeful, analytic and creative process that engages a person to experiment, create and prototype models, gather feedback, and redesign.... **Goes beyond disciplinary boundaries**

**Design melds  
STEAM together and  
provides a framework  
for re-thinking STEAM  
curriculum**

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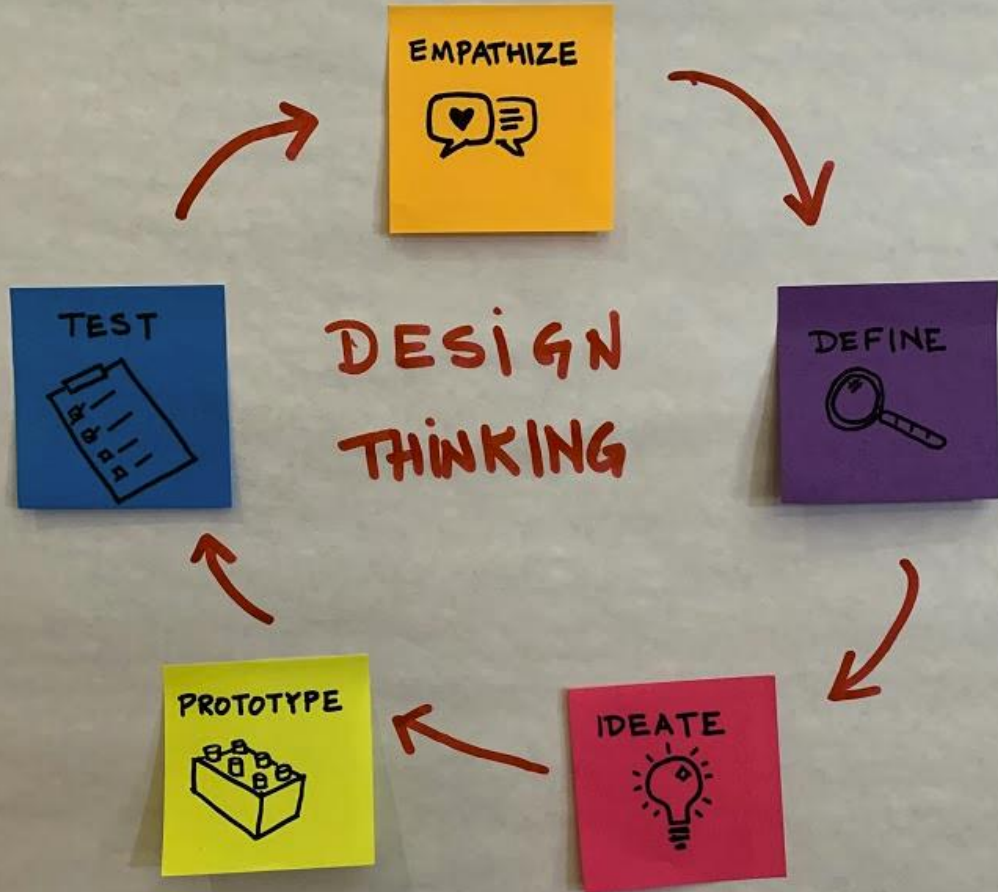


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- Not a linear process
- Takes time
- ... & lots of sticky notes, markers, walking & talking

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- Not a linear process
- Takes time
- ... & lots of sticky notes, markers, walking & talking

... and, we have  
~40 minutes

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# Time to warm up!

**This is going to go fast. As we work together...  
tapping into our collective creativity, and build out  
your workbook**

**Withhold judgement (for now), go with the flow**

**And let's enjoy the run**



# The process: Cycles of 3

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1

We (Danah/Punya): Set the context & provide a prompt (2/3 mins)



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- 1** We (Danah/Punya): Set the context & provide a prompt (2/3 mins)
- 2** Collectively: Write into the chat your first immediate response to the prompt (2/3 mins)

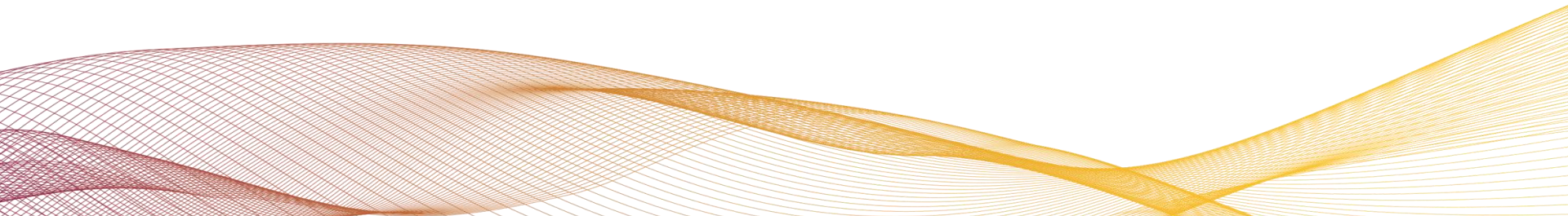
# The process: Cycles of 3

- 1** We (Danah/Punya): Set the context & provide a prompt (2/3 mins)
- 2** Collectively: Write into the chat your first immediate response to the prompt (2/3 mins)
- 3** Individually: Synthesize what you read & add insights/ideas to your workbook (3 mins)

# At the end...

**We** will have experienced ONE sprint through the design thinking process...

**You** will have this set of slides, with your annotations, as a resource for the future!



**LET'S GO!**

**Prompt 1: What is your vision for a powerful STEAM learning experience in your context?**




**Type your ideas in the chat to share with everyone**

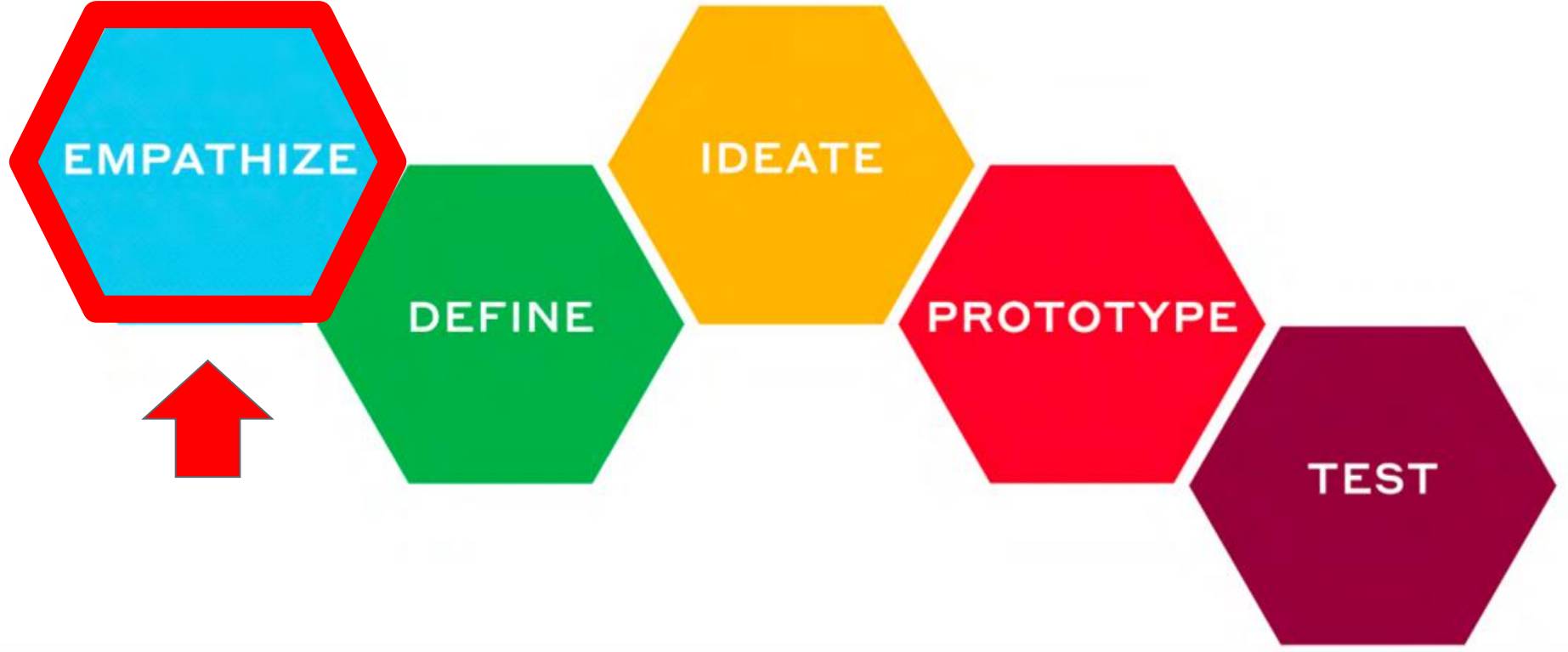


**Keep an eye out for ideas you may want to “borrow” or adapt**

# **Prompt 1: What is your vision for a powerful STEAM learning experience in your context?**

*Synthesize your thoughts (and what you “borrowed” from others) and type it here ...*

The bottom of the slide features two decorative wavy lines. The upper line is white and the lower line is yellow, both curving across the width of the slide.



EMPATHIZE

DEFINE

IDEATE

PROTOTYPE

TEST

# **Empathize**

**To put ourselves in other people's shoes and connect with how they might be feeling about their problem, circumstance, or situation.**



# Designing for the extremes

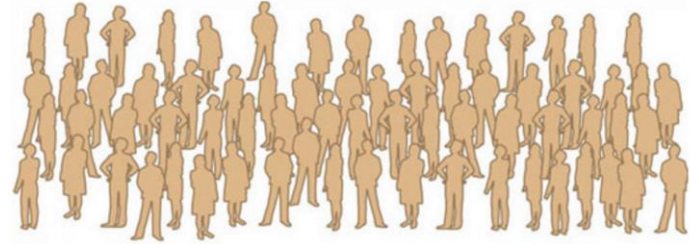


# Designing for the extremes



# The idea of a jagged profile (and the myth of the average)

In searching for the average we ignore most of the population



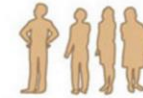
original population



average height



average height and weight

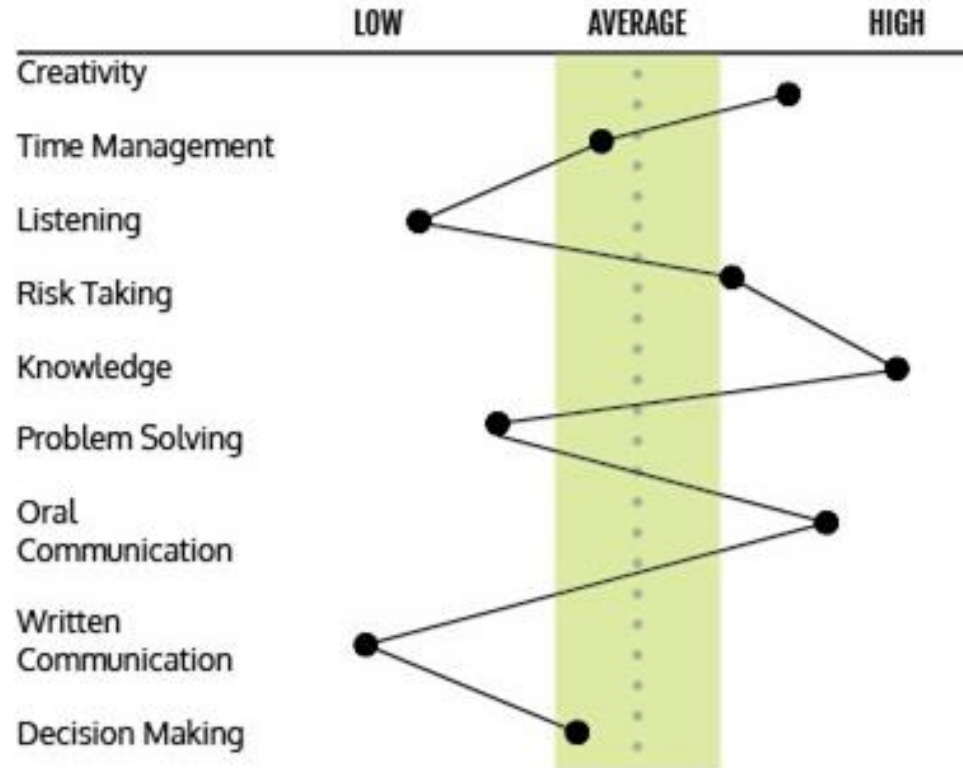


average height, weight and hips width



Image credit: [Designing for the extremes](#)

# Jagged profile



# **Empathize**

**How might we design, not for the average, but for individuals at the extremes of a given continuum?**

**Prompt #2: Think about the learners you serve and choose one continuum along which they fall. Envision a student at each end of this continuum and write a brief profile for each student.**

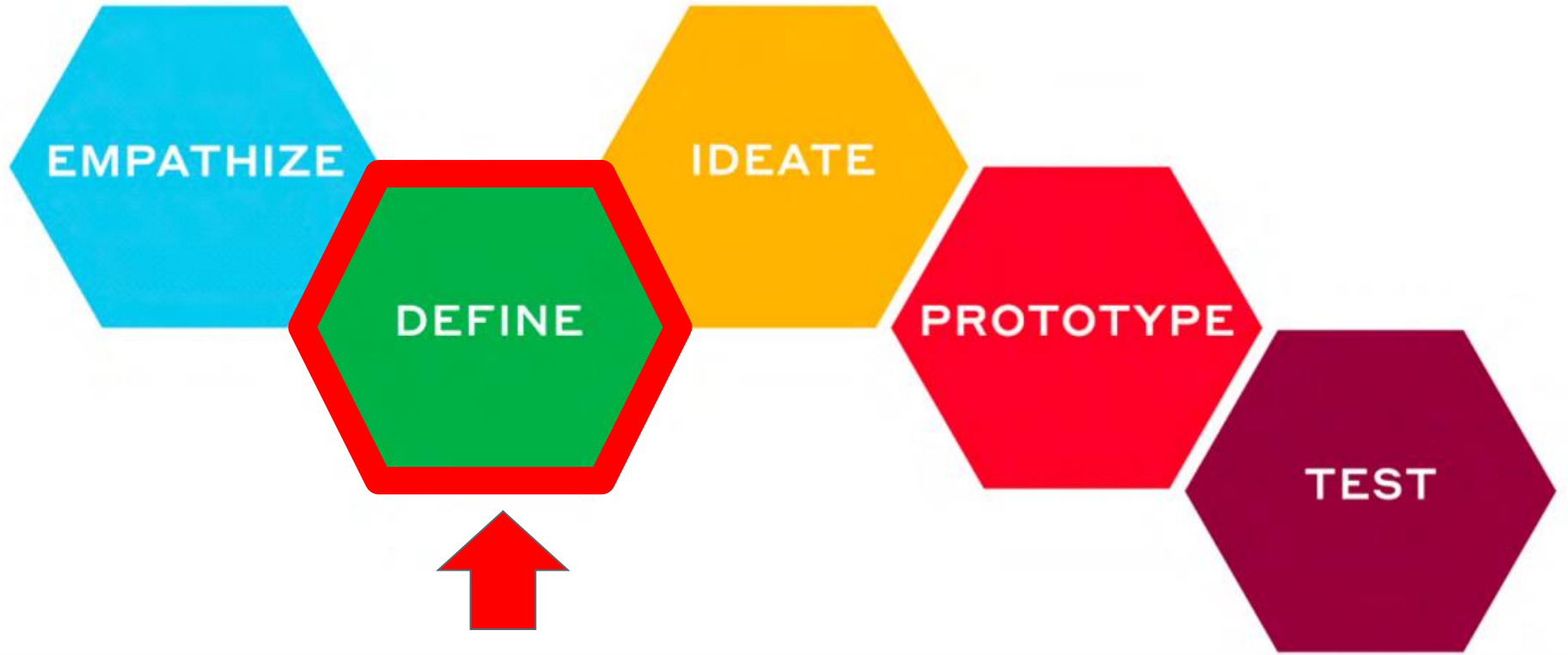
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**Prompt #2: Think about the learners you serve and choose one continuum along which they fall. Envision a student at each end of this continuum and write a brief profile for each student.**

*Examples: A continuum of skills (eg. social-emotional), knowledge (eg. math, literacy), experiences (eg. race, gender)*

*Describe each student's profile here...*





# **Define**

**How might we get clearer in stating our vision/goals?**

*“If I had an hour to solve a problem I’d spend 55 minutes thinking about the problem and 5 minutes thinking about solutions.”— Albert Einstein*

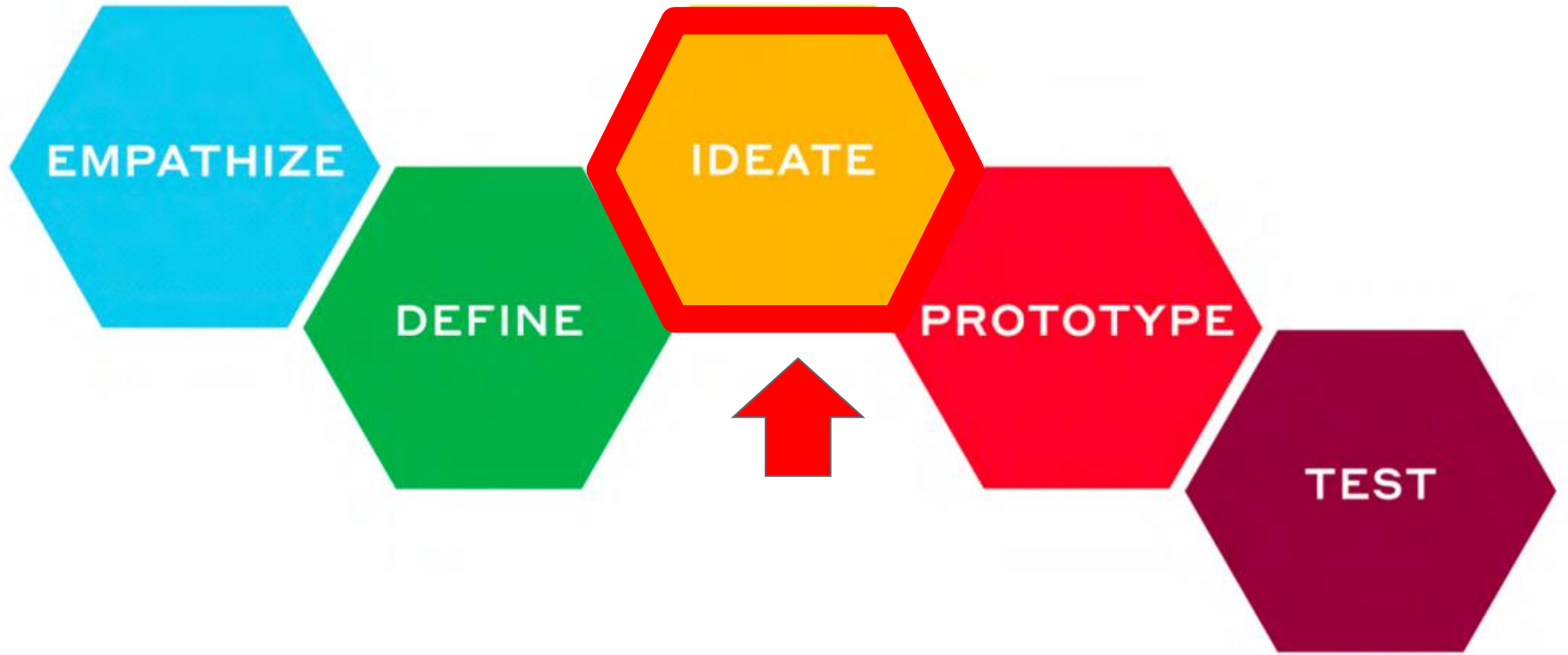
**Prompt #3: Revisit your vision while considering the student profiles you created. What opportunities/challenges now emerge as you consider these profiles? Write out a “How might we...?” question that addresses a challenge/ opportunity.**

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**Prompt #3: Revisit your vision while considering the student profiles you created. What opportunities/challenges now emerge as you consider these profiles? Write out a “How might we...?” question that addresses a challenge/ opportunity.**

*How might we... <Type your question here>?*



# **Ideate**

**How might we allow ourselves to think creatively and break out of our assumptions?**



**Prompt #4: Choose one of the following movie genres, and consider how it could be the solution to your defined challenge or opportunity. What new ideas emerge?**

**[thriller/ mystery/ drama/ comedy/ tragedy/ family drama/ rom-com]**

**Type your ideas in the chat to share with everyone**

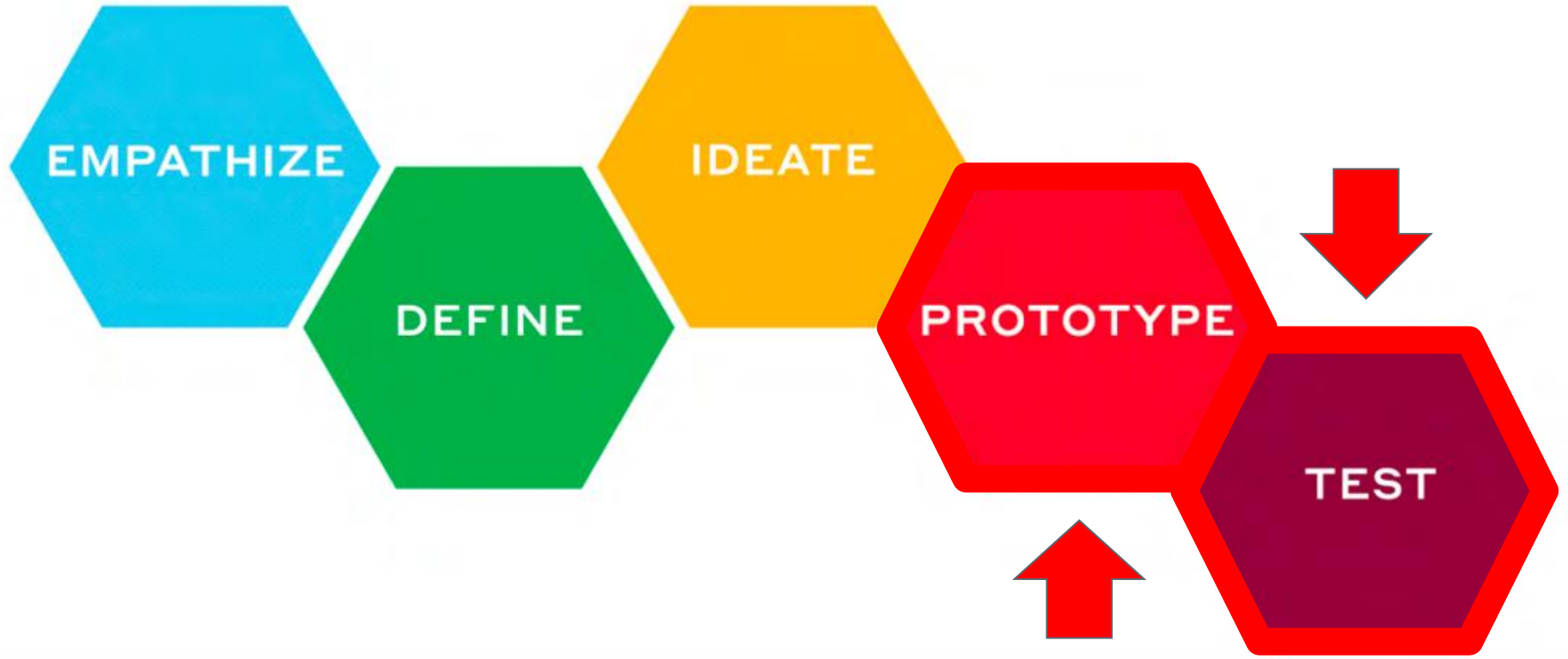
**Keep an eye out for ideas you may want to “borrow” or adapt**



**Prompt #4: Choose one of the following movie genres, and consider how it could be the solution to your defined challenge or opportunity. What new ideas emerge?**

**[thriller/ mystery/ drama/ comedy/ tragedy/ family drama/ rom-com]**

*Type (withholding judgement) all the ideas/possibilities that emerge...*



# **Prototype & Test**

**How might we try out an idea,  
and how do we know if we are  
successful?**



**Prompt #5: Briefly describe how you could start small to test out your idea. What would be your measures of success?**

**Type your ideas in the chat to share with everyone**

**Keep an eye out for ideas you may want to “borrow” or adapt**

**Prompt #5: Briefly describe how you could start small to test out your idea. What would be your measures of success?**

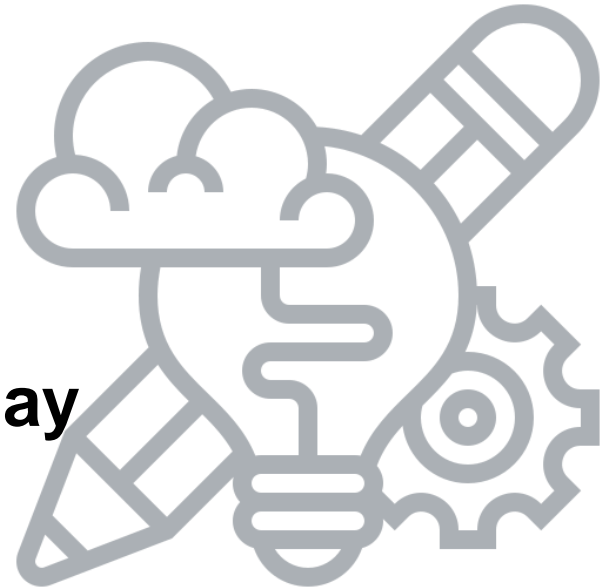
*Type your ideas here...*



**Closing prompt: What value (eg. skills, mindsets, habits) could be gained by using design thinking to develop and refine STEAM instruction and curricula? What could be gained by students approaching their learning in this way?**

**Type your ideas in the chat to share with everyone**

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**Closing prompt: What value (eg. skills, mindsets, habits) could be gained by using design thinking to develop and refine STEAM instruction and curricula? What could be gained by students approaching their learning in this way?**

*Type your thoughts here...*





**Q & A**

# Additional resources

- [45 Design Thinking Resources for Educators](#)
- [Design Thinking for Educators Toolkit](#)
- [Design Thinking Gives STEAM to Teaching \(2019\)](#)
- [Creating STEAM with Design Thinking \(2017\)](#)

# Thank you!

Many thanks to Claire Muñoz, Craig Rosen,  
and the conference organizing team,  
and to all of our participants!

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