

# Let's Build Something! (The Toolkit)

A Rapid-Prototyping Instructional Design Workshop



## Mini-Manifesto

Page 2

- 5 ideas to help foster DIY approaches to learner-centered instructional design.



## 4-Paths Templates

Pages 10-11

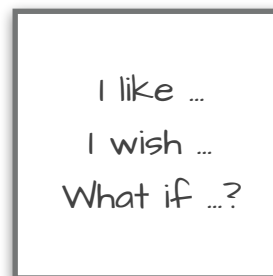
- leverage divergent thinking to explore multiple pathways.
- explore your learning outcome across different forms of media.
- select an initial approach for further prototyping.



## Empathy Map Templates

Pages 3-6

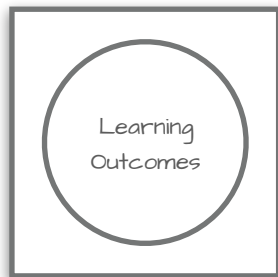
- center your design around learners and their goals.
- situate your design ideas in real-world learning contexts.
- develop insight into key breakthroughs in the learning process.



## Rapid Prototyping & Feedback

Pages 12 -18

- See / hear / do cards
- I like, I wish, What if....?
- User Feedback Interview Protocol Example



## Learning Journey Templates

Pages 7-9

- break down complex learning outcomes into smaller tasks.
- situate your learning outcomes within the learner's process.
- identify related learning outcomes you may want to explore.



## Resources & Links

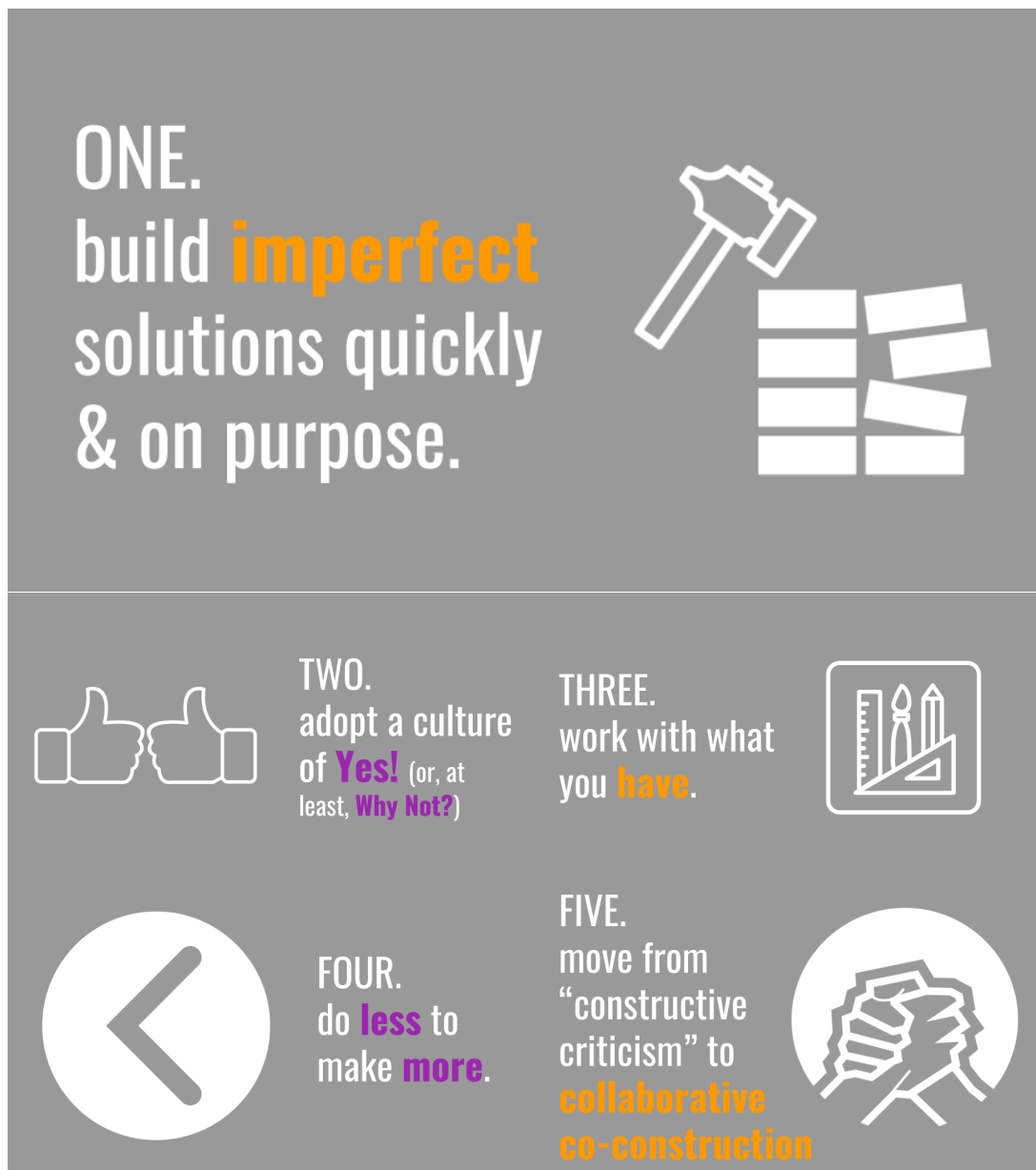
Page 19

- Presentation slides
- Additional resources and readings.

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# Let's Build Something: Mini-Manifesto

1. build imperfect solutions quickly and on purpose.
2. adopt a culture of Yes! (or, at least, Why not?).
3. work with what you have.
4. do less to make more.
5. move from "constructive criticism" to collaborative co-construction.

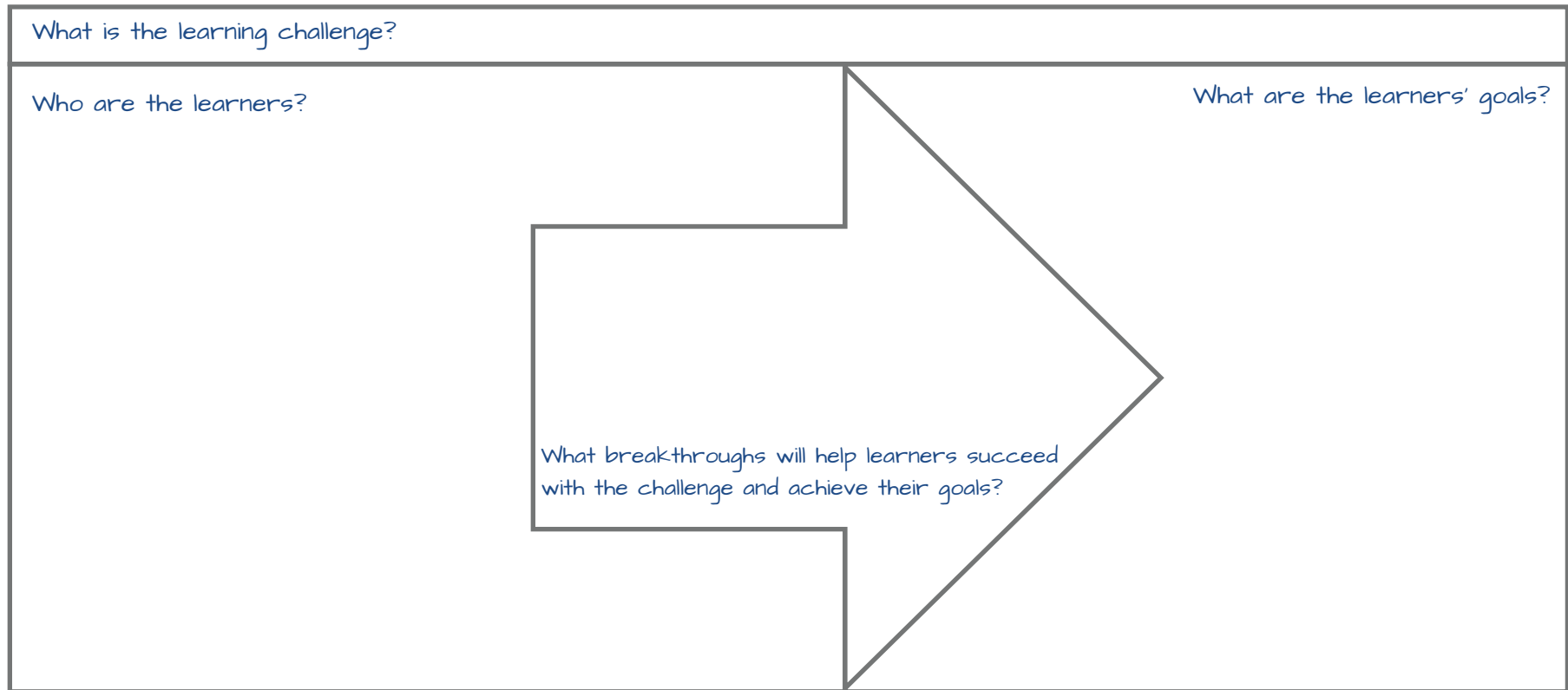


CC BY 4.0, Brecher Cook, D., & Worsham, D. (2018, April). Let's Build Something!: A Rapid-Prototyping Instructional Design Workshop. Pre-conference workshop at the 2018 CARL Conference, Redwood City, CA.

See also: <https://uclalibrary.github.io/research-tips/wire-way/>

# Empathy Map

center your design around learners and their goals.  
situate your design ideas in real-world learning contexts.  
develop insight into key breakthroughs in the learning process.



## How to make an empathy map:

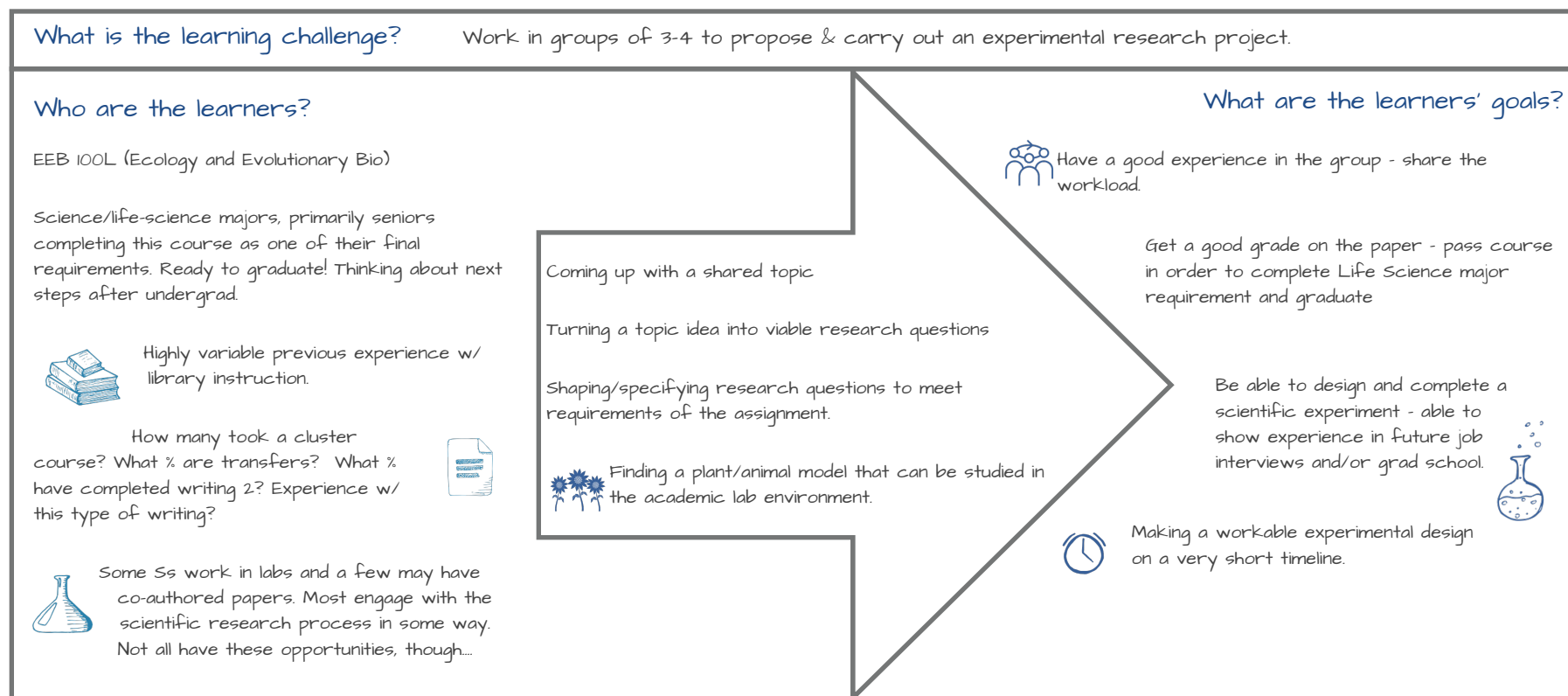
1. Describe the major challenge you want to explore (e.g., "evaluating sources for a literature review").
2. Reflect on the learners and their goals: Who are the learners? What background knowledge do they have? What are their goals? Areas of expertise? How do learners currently approach this challenge? What contextual factors might impact learning?
3. Identify breakthroughs and aha-moments in the learning process that will help learners achieve their goals and meet the requirements and expectations.

## Tips:

- Explore the diversity of learners and learning contexts (as well as commonalities).
- Question your assumptions and actively identify unknowns.

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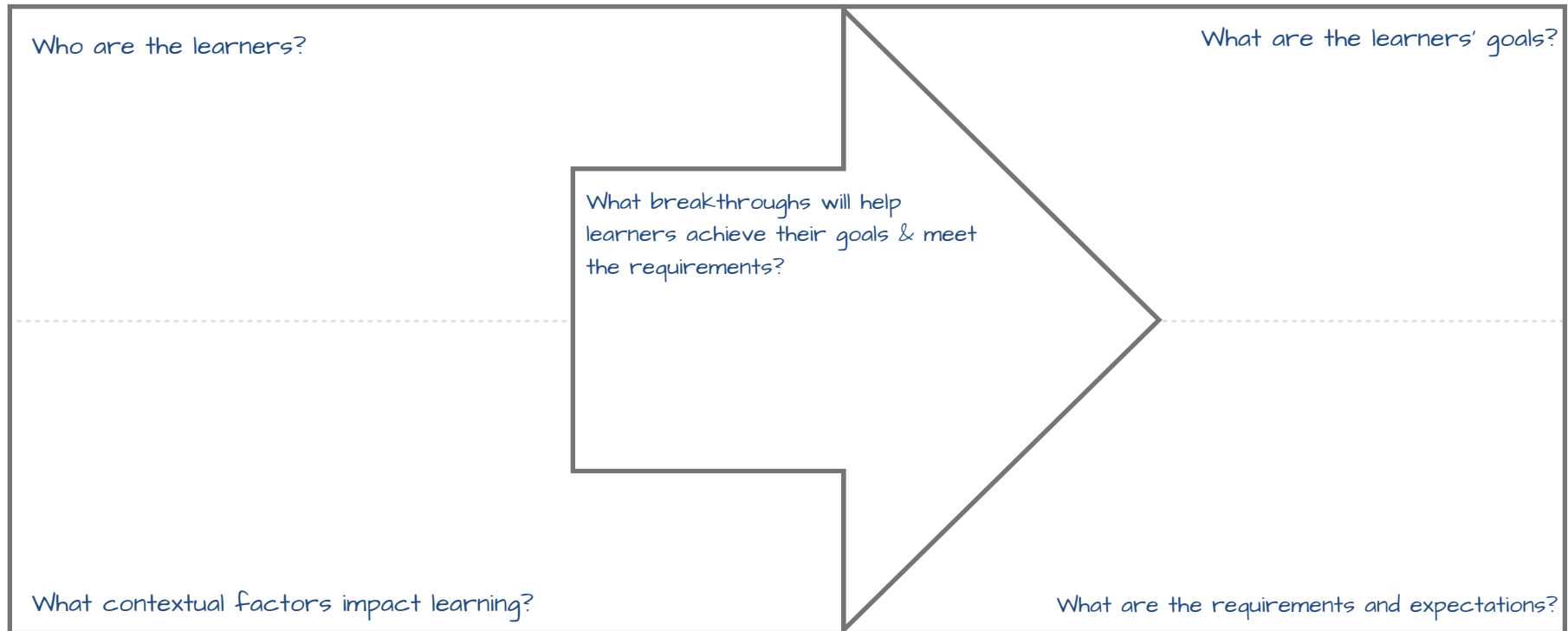
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Challenge:



## How to make an empathy map:

1. Describe the major challenge you want to explore (e.g., "writing an effective literature review").
2. Reflect on the learners and their goals: Who are the learners? What background knowledge do they have? What are their goals? Areas of expertise? How do learners currently approach this challenge?
3. Explore the contexts in which learning will happen & identify requirements and expectations. Is this a required course? Do learners have equal access to information and materials? How does grading/evaluation work? Are grading expectations clear for all learners? What other contextual factors might impact learning?
4. Identify breakthroughs and aha moments in the learning process that will help learners achieve their goals and meet the requirements and expectations.

## Tips:

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# Empathy Map

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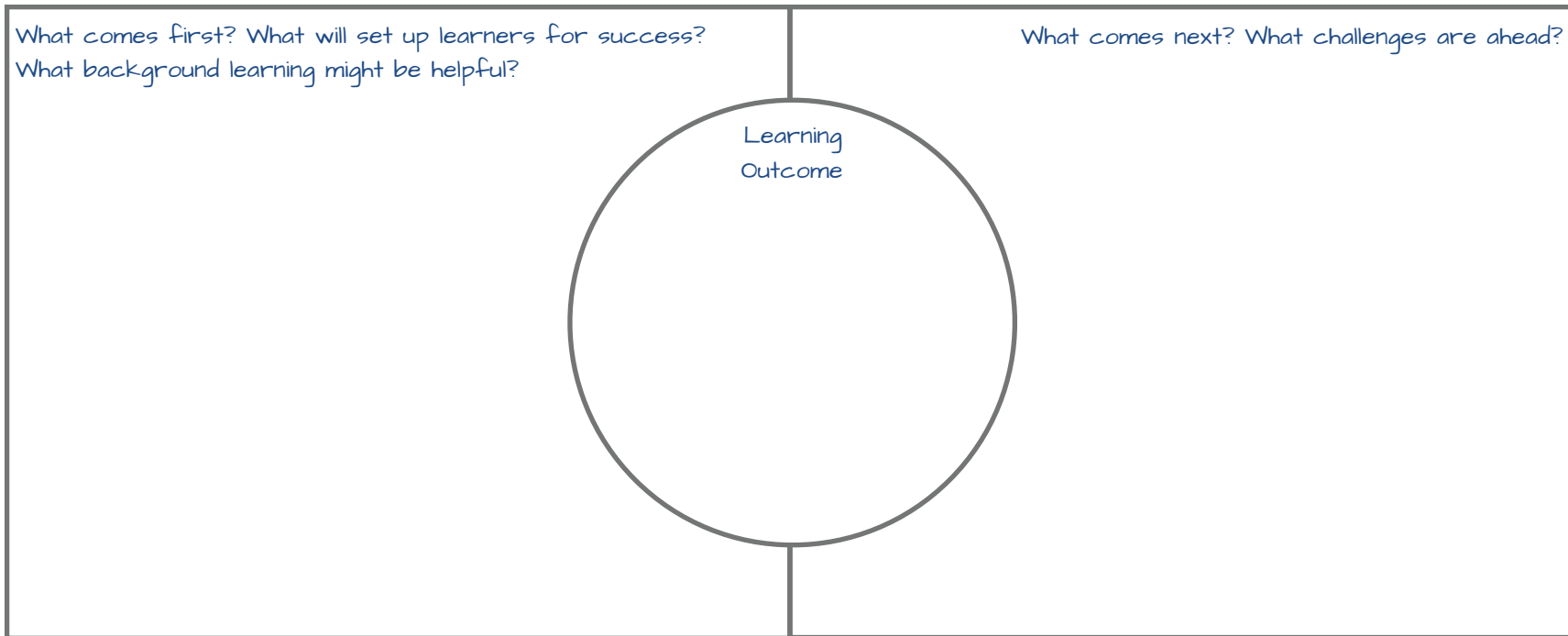
Challenge:

Who are the learners?	What are the learners' goals?
What breakthroughs will help learners achieve their goals & meet the requirements?	
What contextual factors impact learning?	What are the requirements and expectations?

# Learning Journey Map

break down complex learning outcomes into smaller tasks.  
situate your learning outcomes within the learner's process.  
identify related learning outcomes you may want to explore.

Challenge:



## How to make a learning journey map:

1. Describe the major challenge you are hoping to explore in this learning journey map (e.g., "writing an effective literature review" or "critically examining primary source documents").
2. Write one learning outcome related to this challenge in the center circle.
3. Identify pre-learning that might help set up students for success. As a part of this, break down your learning outcome into smaller tasks and more manageable steps.
4. Identify next steps in the learning process. What will learners do next and what is the bigger picture or larger goal they are heading toward?

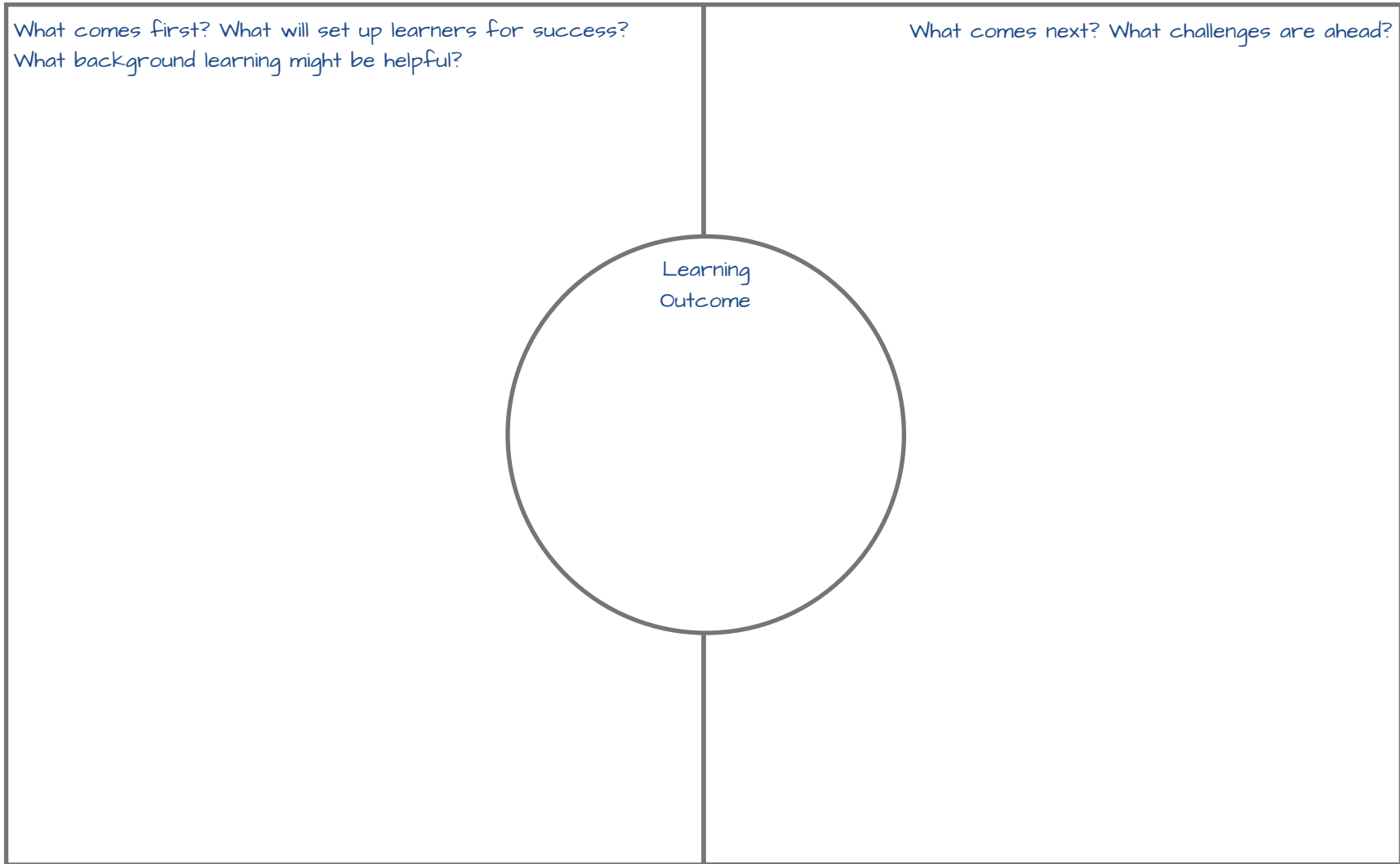
## Tips:

- Revisit your empathy map. What are some of the hidden/invisible challenges learners might face?
- Identify the steps that experts sometimes forget they do
- Make internalized expertise and process visible for learners.

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Challenge:

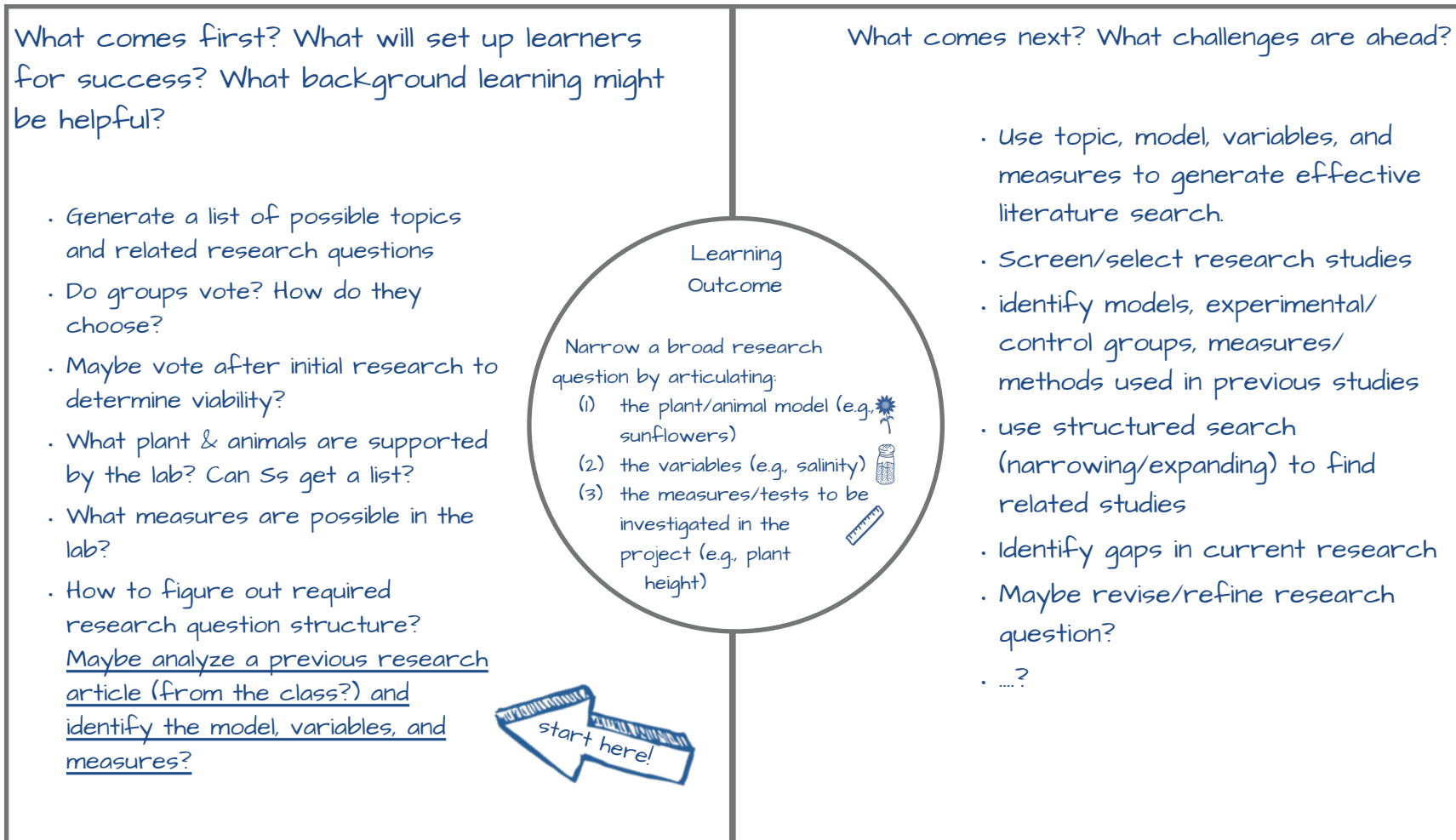




# Learning Journey Map

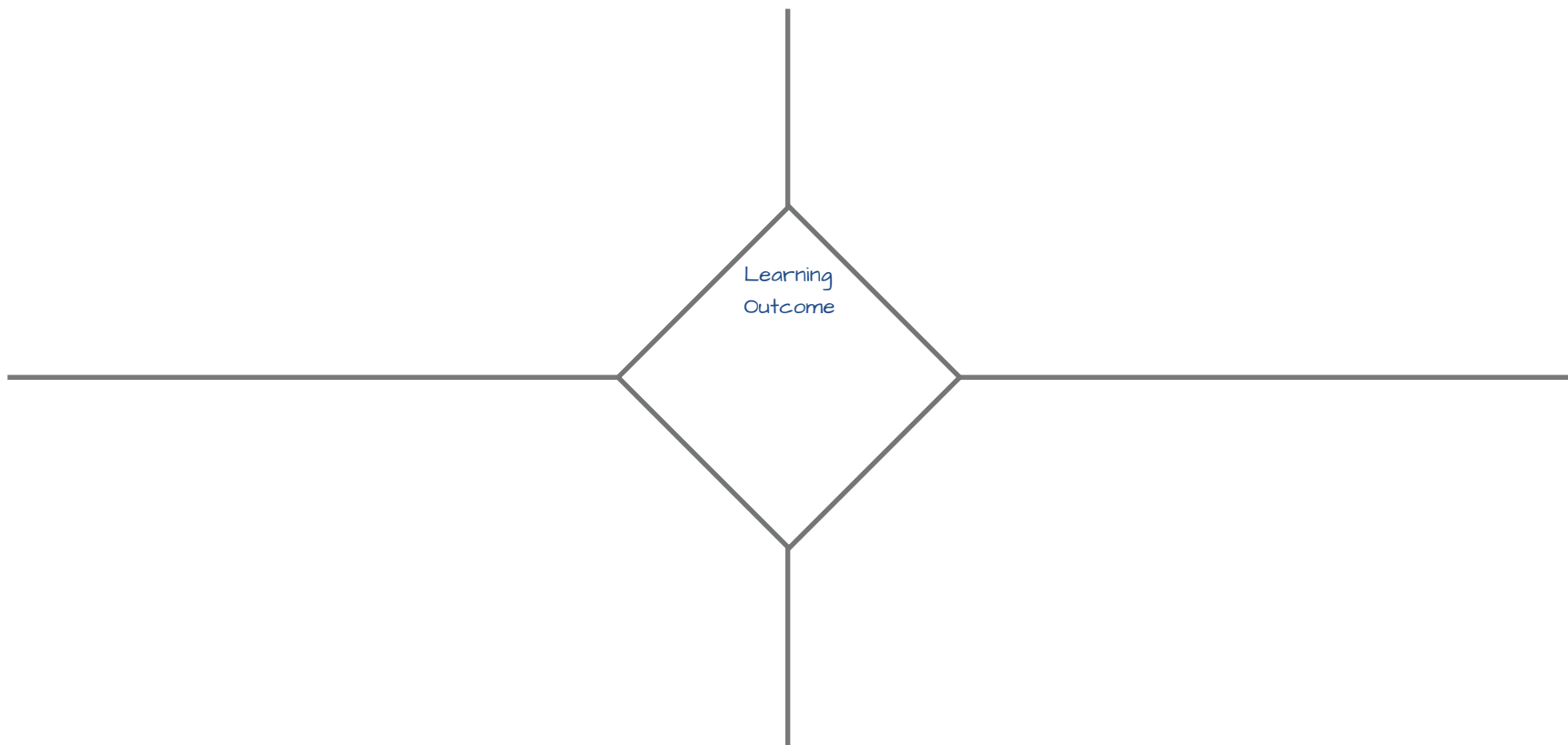
break down complex learning outcomes into smaller tasks.  
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Challenge: Working in groups of 3-4 to propose & carry out an experimental research project during 10 week quarter.



## 4 Paths Prototype

leverage divergent thinking to explore multiple pathways.  
explore your learning outcome across different forms of media.  
select an initial approach for further prototyping.



### How to make a 4 paths prototype:

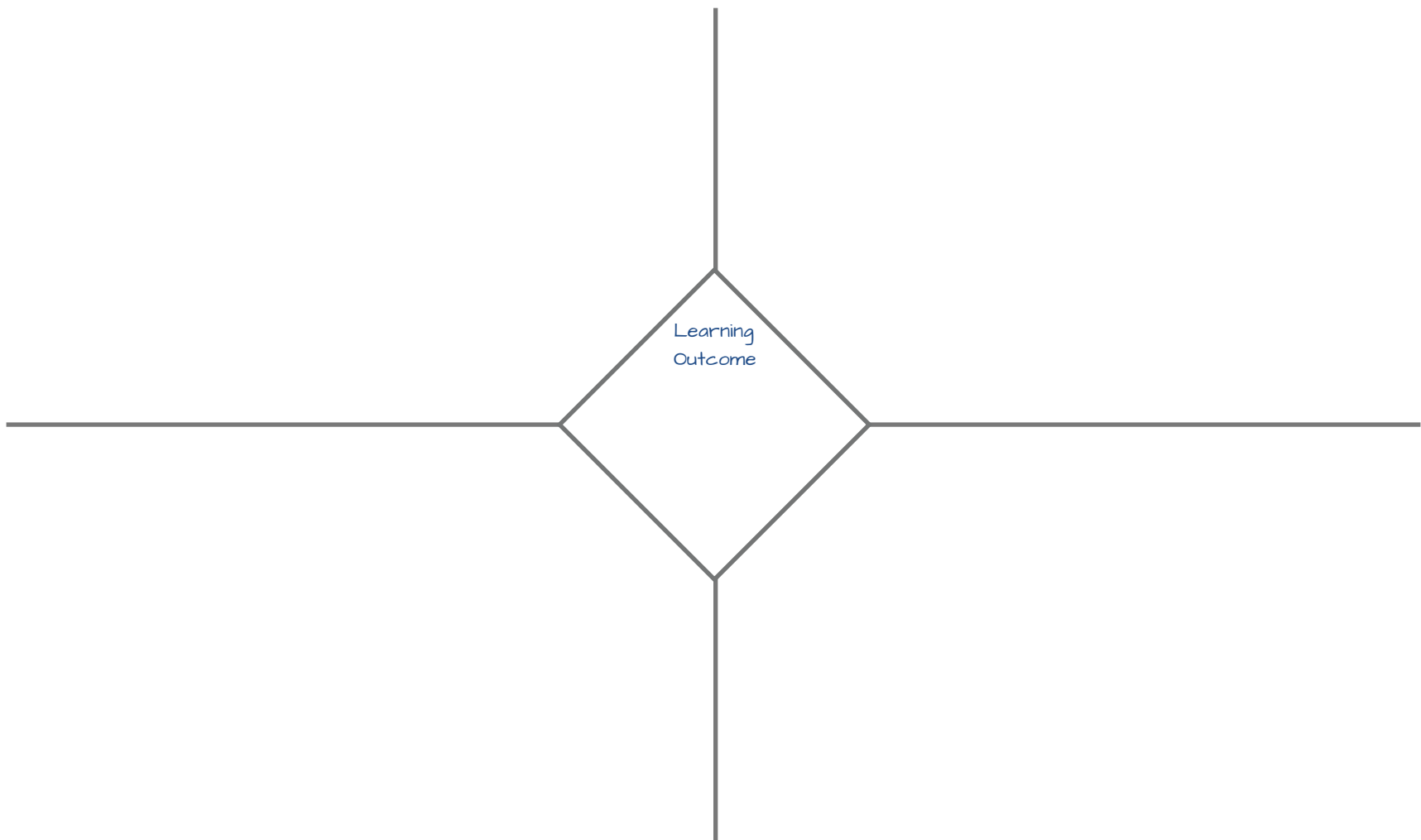
1. Write the learning outcome you are working on in the center diamond.
2. Rapidly sketch four different approaches to helping students with this learning outcome. Give yourself about a minute to explore, sketch, and jot down notes for each option.
3. After 4 minutes, label your paths based on criteria you generate (e.g., most feasible, most impactful for learners, most fun to make, etc).

### Tips:

- Explore all options freely and without worry.
- Consider print, digital, video, audio, performance art, animation, in-person activities, anything!

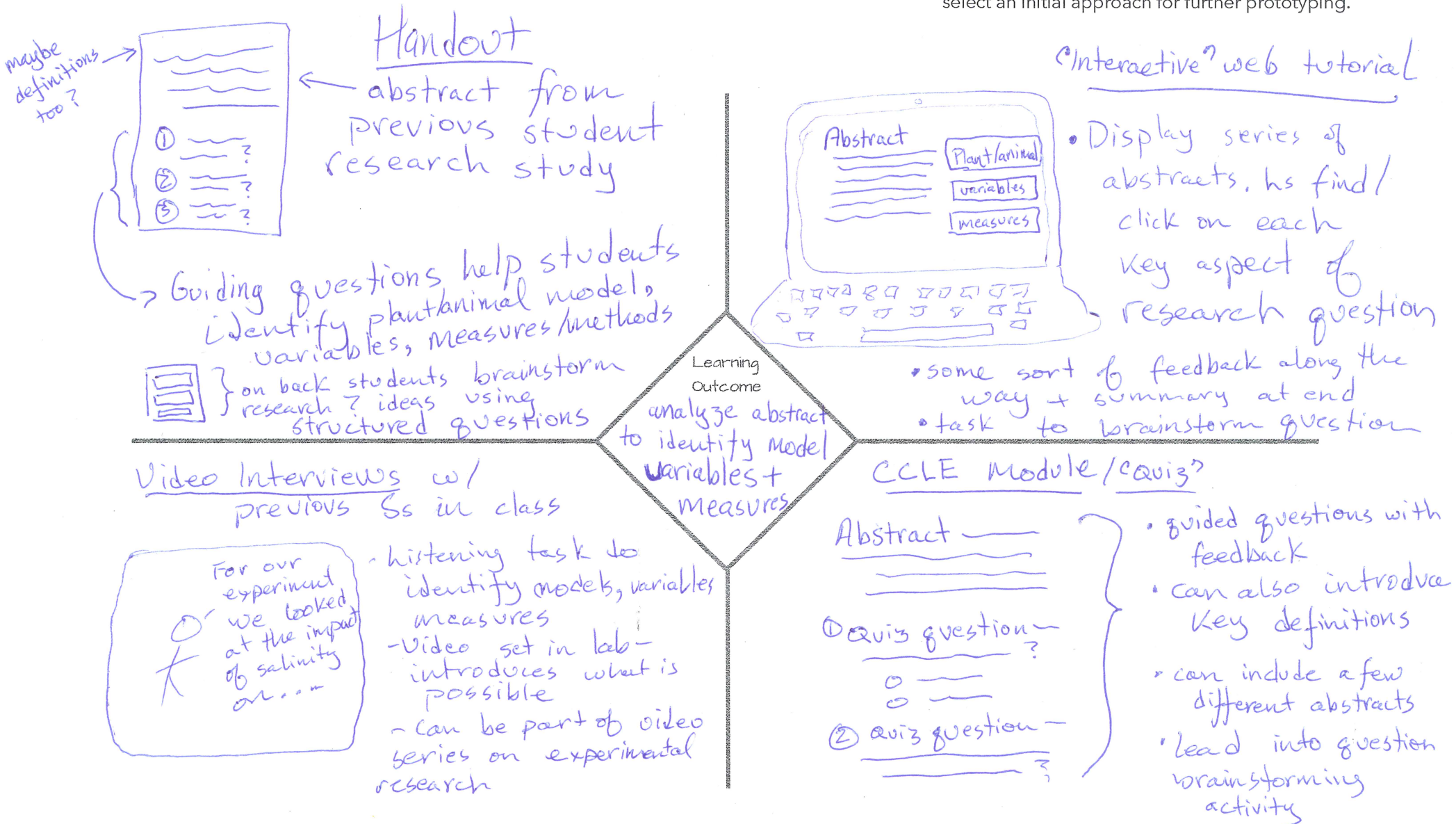
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# 4 Paths Prototype - EEB 100L

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## Guiding Questions for Your Storyboard:

1. Which learning outcome are you focusing on developing into a learning object?
2. Use this space to make a textual flowchart of your object, then choose a small section to map out in the rest of the prototype (you could either draw out a consecutive sequence OR the key moments of the learning object).



What do you hear?



What do you hear?

A large, empty rounded rectangular box with a black border, intended for a drawing or response.

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What do you hear?

Class/Activity Name:

Activity One:

Activity Two:

## Activity Three



## I like, I wish, What if?

quickly collect and categorize key feedback.  
foster user participation in the design process.  
facilitate meaningful, constructive, and creative discussions.



I like ....



I wish ....



What if?

### How to facilitate an IL/IW/WI discussion:

1. Share your current design or prototype with your user testing community.
2. Ask each participant to provide feedback, starting their sentences with "I like ...", "I wish ...", or "What if ..."
3. Share ideas with the community group and foster further discussion and conversation, asking follow-up questions as needed.

### Tips:

- Collect all ideas shared.
- Encourage participants to respond to "I wish" statements with "What if" statements.

# User Testing Protocol - WI+RE Example

Format: One-on-one interviews

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## What this looks like:

This one-on-one interview is our chance to really observe how students are moving through the tutorial. Are people utilizing the down arrows? Is the fast-forward option understandable? Are they watching the entirety of videos, are they understanding the GIF instruction? While the surveys are useful, the qualitative, observational element of these interviews is their strength. Taking detailed notes is crucial to making these sessions useful!

Make sure that you have 20-30 minutes set aside with each participant. If they watch every video (albeit unlikely) we've embedded in the slideshow, that's 10 minutes of screen time.

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## Script:

Hi, \_\_\_\_\_. My name is \_\_\_\_\_, and I'm going to be walking you through this session today. I'm reading from a script to make sure that you get all of the information you need and that our user testing is standardized.

You probably already have a good idea of why we're here, but let me go over it again briefly.

We're asking people to test an online tutorial our team has made that teaches students how to use the citation management program Zotero.

I'll pull up the tutorial slideshow and observe how you move through the presentation. It's important to note right away that you can't do anything wrong here - we're testing our tutorial, not you.

As you go through the tutorial, I'm going to ask you as much as possible to try to think out loud. Tell me what you're looking at, what you're trying to do and what you think could be better or more intuitive.

Also, don't worry about hurting my feelings. We're doing this testing to make sure our tutorial best serves the students at UCLA, so your honest feedback is crucial and appreciated.

If you have any questions as you go along, feel free to ask them. I may not be able to answer because we are interested in seeing how people move through the tutorial without someone sitting next to them to help, but I will answer all unresolved questions after you finish.

CC BY 4.0, Meyer, Caitlin. (2016, November). User Testing Protocol for Zotero Tutorial.

Adapted from Krug, S., & Matcho, M. (2010). Rocket surgery made easy: The do-it-yourself guide to finding and fixing usability problems. Berkeley, CA: New Riders.

The Zotero tutorial referenced here was created by WI+RE: <https://uclalibrary.github.io/research-tips/zotero/>

***\*\*include if we're going to record\*\****

With your permission, we're going to record what happens on the screen and our conversation. It will only be seen and heard by people working on the project. Does this sound okay?

***\*\*if yes, start recording\*\****

Do you have any questions before we start?

Before I open the tutorial, I'd like to ask a few quick questions.

- What is your major or intended field of study?
- Have you heard of or used Zotero before?

Let's begin.

***\*\*click on bookmark for slideshow and hand off control of computer to student\*\****

Go ahead and work through the tutorial. Keep in mind that you do not have to complete every part of this tutorial or watch the entirety of our videos. You may click through at your own pace and do only as much as you feel necessary to learn the target skills. Remember to narrate your thought process as you go through, and I'll be watching and taking notes.

***\*\*watch student go through tutorial, let them work through the tutorial as best they can and find where to go without too much guidance, if possible \*\****

***\*\* after they finish... \*\****

Great! To collect your ideas and feedback, we'd love to have you fill out this survey. As you go through it, though, please feel free to verbally tell me any questions, comments, or suggestions you have related to our survey questions.

Survey: [bit.ly/zotero-tutorial-survey](https://bit.ly/zotero-tutorial-survey)

CC BY 4.0, Meyer, Caitlin. (2016, November). User Testing Protocol for Zotero Tutorial.

Adapted from Krug, S., & Matcho, M. (2010). Rocket surgery made easy: The do-it-yourself guide to finding and fixing usability problems. Berkeley, CA: New Riders.

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# Let's Build Something: Resources

This toolkit:

Brecher Cook, Dani, & Worsham, Doug. (2018). Let's Build Something! (The Toolkit). <https://ucla.box.com/v/build-something-toolkit>

Workshop slides:

Brecher Cook, Dani, & Worsham, Doug. (2018, April). Let's Build Something!: A Rapid-Prototyping Instructional Design Workshop. Pre-conference workshop presented at the 2018 CARL Conference, Redwood City, CA. <http://bit.ly/build-something-slides>

Additional Resources:

Action Verbs for Learning Objectives. Education Oasis. Retrieved from [http://agsci.psu.edu/elearning/pdf/objective\\_verbs.pdf](http://agsci.psu.edu/elearning/pdf/objective_verbs.pdf)

Design Thinking Bootleg. (2009). Retrieved April 10, 2018, from <https://dschool.stanford.edu/resources/the-bootcamp-bootleg>

Gray, D., Brown, S., & Macanufo, J. (2010). Gamestorming: a playbook for innovators, rulebreakers, and changemakers. Farnham: O'Reilly. Retrieved from <http://public.eblib.com/choice/publicfullrecord.aspx?p=562862>

Krug, S., & Matcho, M. (2010). Rocket surgery made easy: The do-it-yourself guide to finding and fixing usability problems. Berkeley, CA: New Riders.

UCLA WI+RE (Writing Instruction + Research Education). Strategies for Research and Writing. Retrieved April 10, 2018, from <https://uclalibrary.github.io/research-tips/>