Define Problems Worthy to Solve

Shan-Hung Wu & DataLab
CS, NTHU

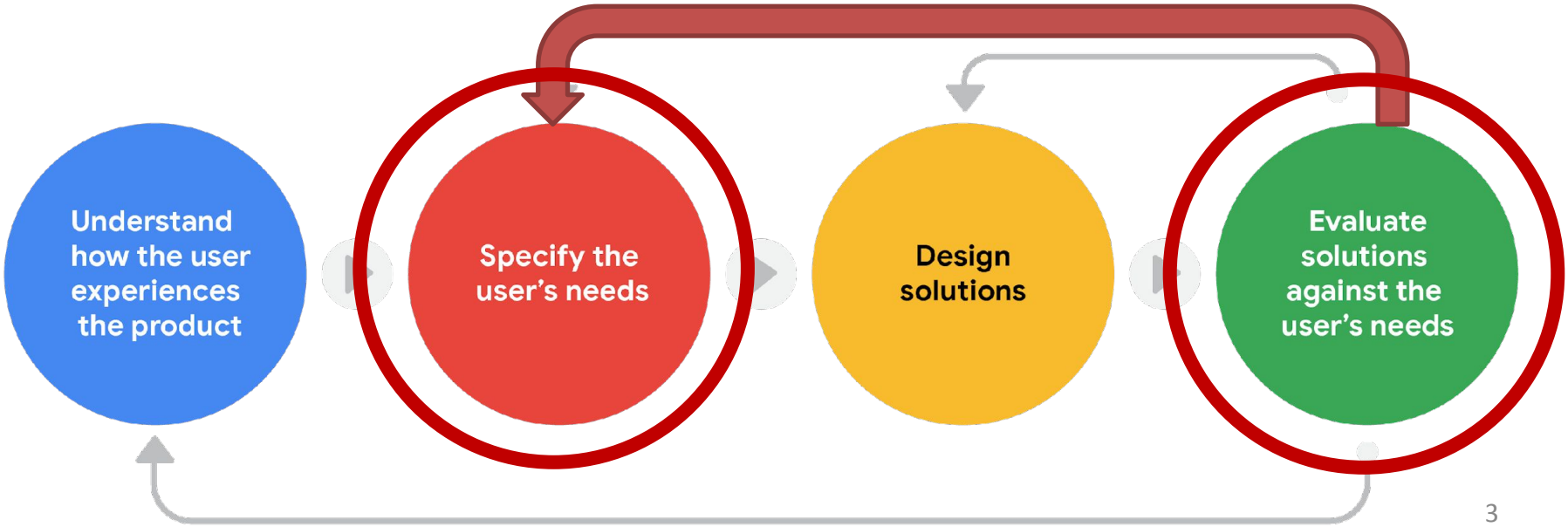
Your Personas

- Now, you are able to empathize with users of any ***given*** app
- How to transform that ability to ***your own*** ideas?

Name	
ARCHETYPE	A title to describe the person based on their actions, for example “The Hobbyist”, “The Adventurer”, “The Specialist”
BACKGROUND	Frame your user a bit with some more information. Identify their age, gender, location, habits, or profession.
MOTIVATIONS	What motivates the person to use this product?
GOALS & NEEDS	What does the user want to accomplish?
FRUSTRATIONS	What is standing in her way?
CHANNEL	Through which channel can we reach the user? Which websites, apps, stores, social media?
SCENARIO	Write out a description of the scenario or activity involving your user.

Outline:
From Empathy to Design Challenges

- Design sprints
- User stories and journey map
- “How Might We…”
- Problem statements, hypotheses, and validation



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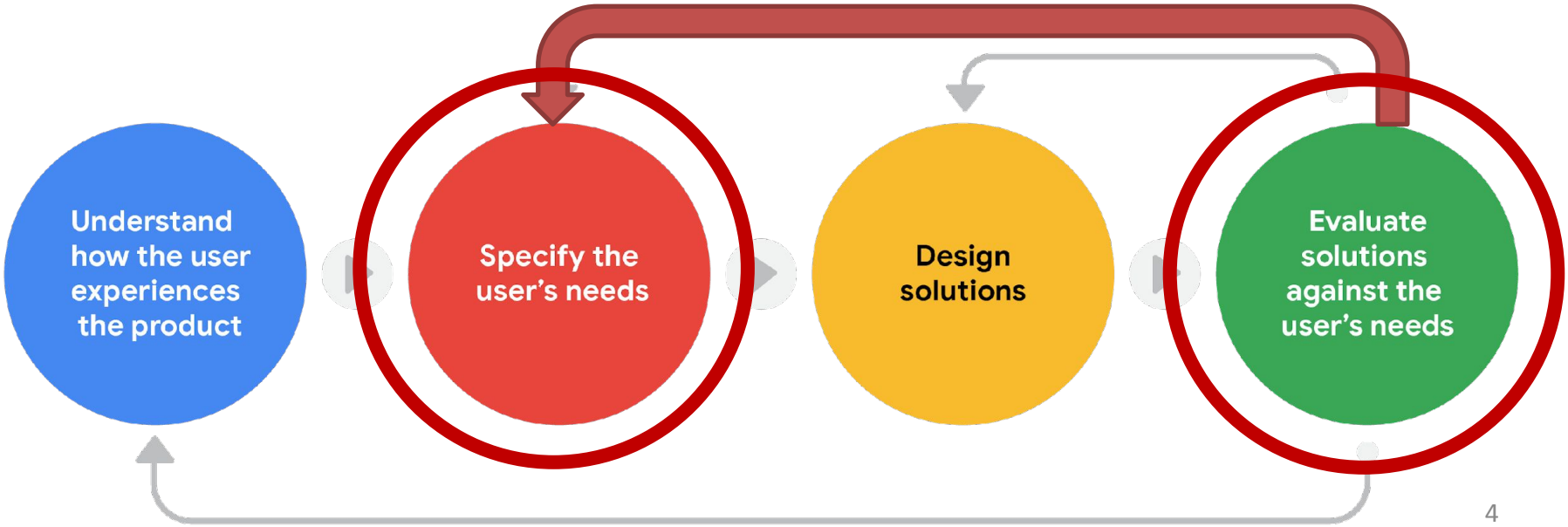
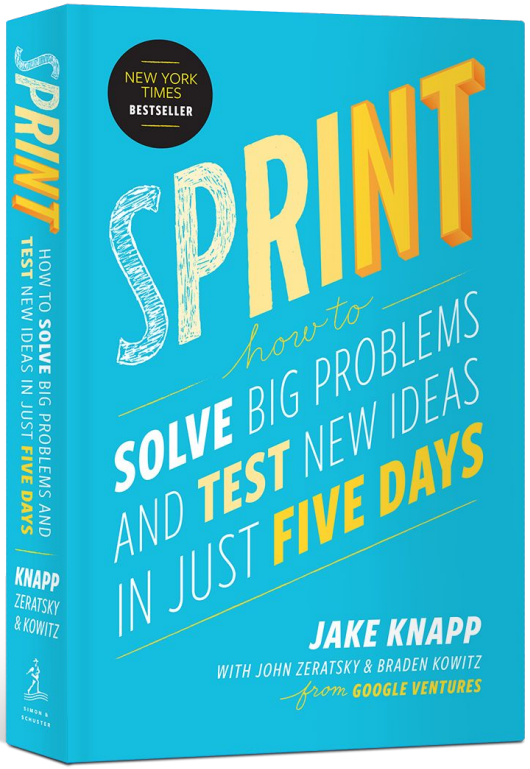
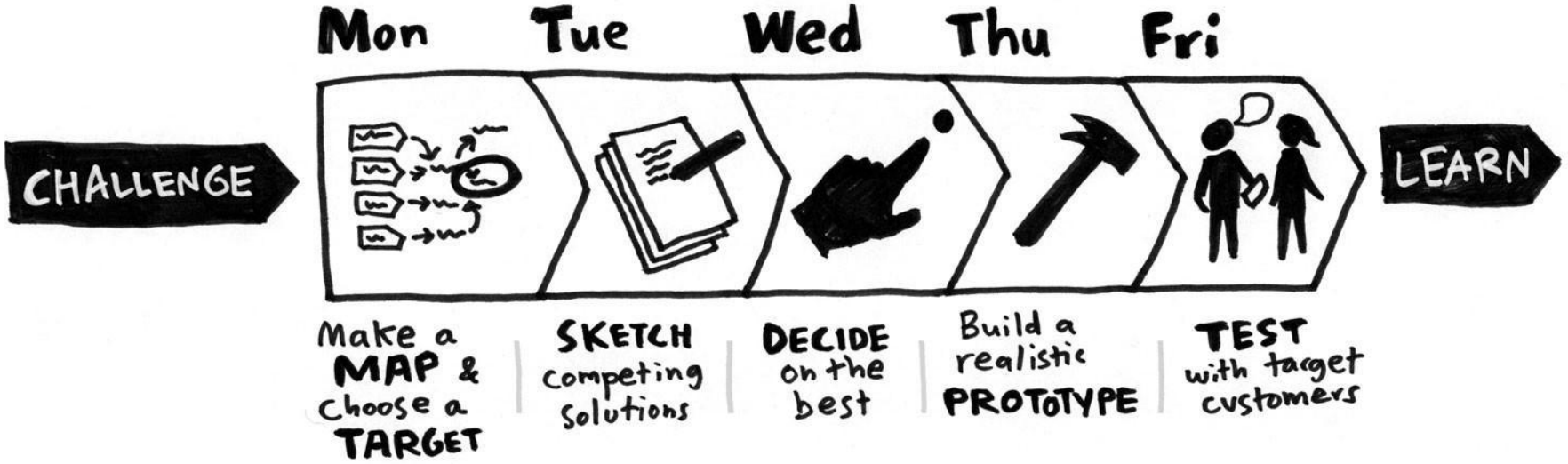


Design Sprint

- A time-bound process with 5 phases
- Typically spread out 5 full (8 h) days





1. Define user problems worthy to solve
2. Ideate solutions
3. Decide the best solution and evaluation metrics
4. Prototype
5. Test, learn, and iterate

- We will cover the details later
- For now, read this blog post for an overview

Benefits of Design Sprint

- Saves time
- Prioritizes the user
- Creates a path from product to market
- Test product before launch

When ***Not*** to Sprint

- If you don’t have user research or a strong understanding of your customer base
- If you have clear product direction and just need dedicated design time
- If you don’t have leadership (decision makers) buy-in

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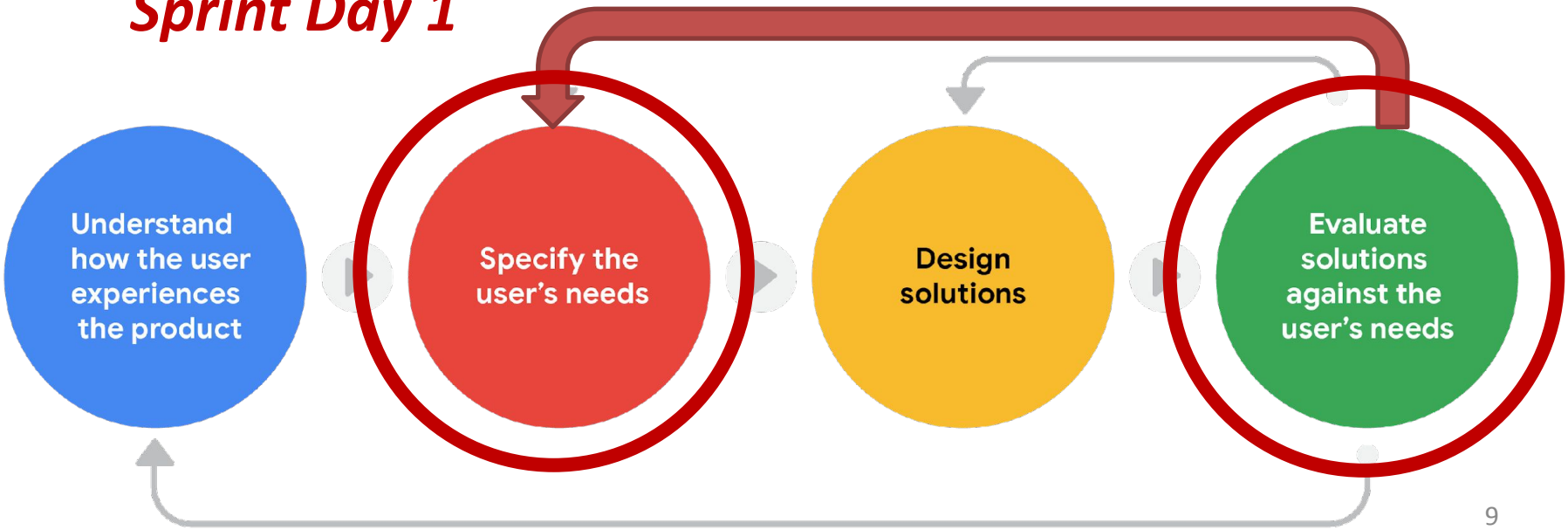
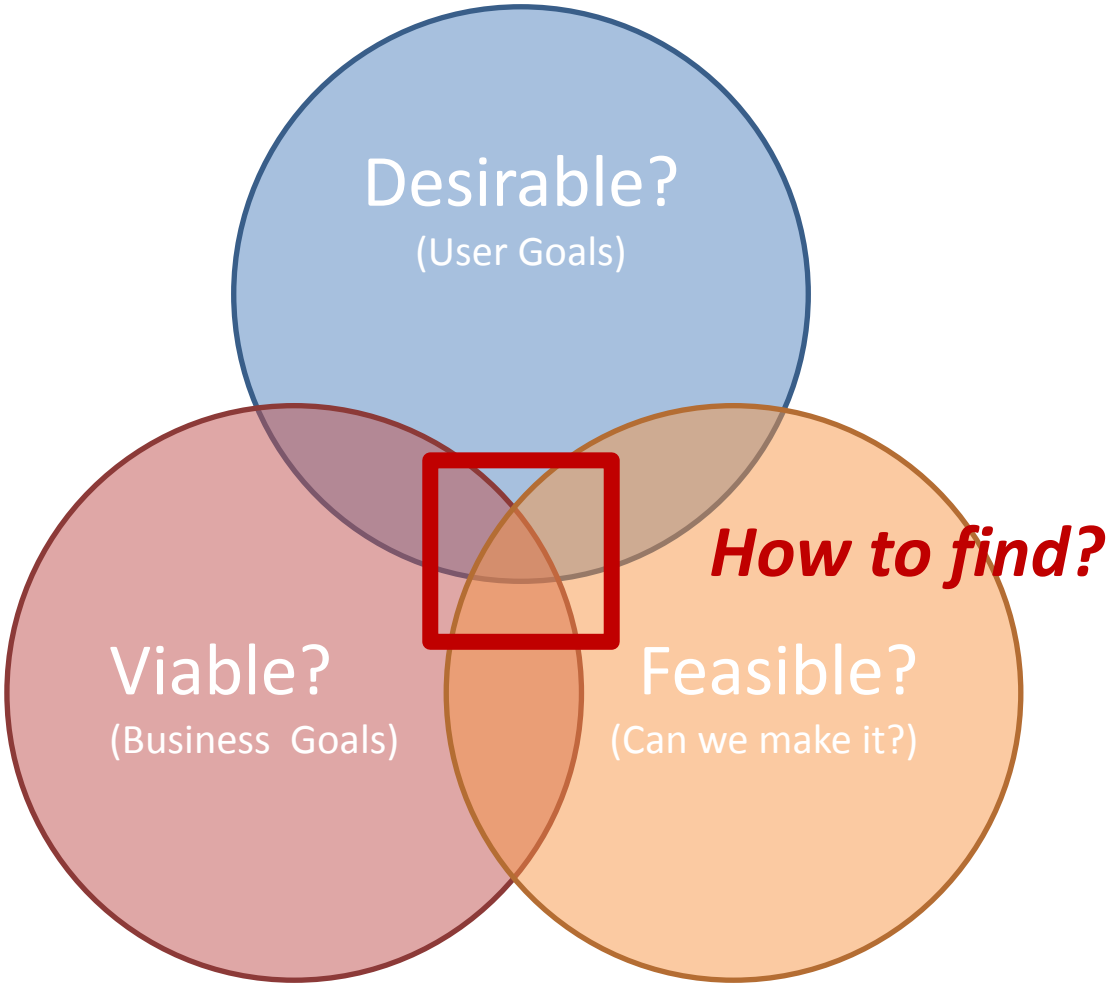
Sprint Day 1



“We fail more often because we solve the wrong problem than because we get the wrong solution.”

– Russell L. Ackoff

What are the “Right” Problems?



1. Revisit Personas

- Focus on the ***scenario*** (***user story***)

Name

ARCHETYPE	A title to describe the person based on their actions, for example “The Hobbyist”, “The

Who → What → Why

As a type of user, I want to action, so that benefit.

SCENARIO	Write out a description of the scenario or activity involving your user.

Examples (DogWalker App)

As a frequent traveler, I want to trust my dog walker so that I can keep my house safe

As a white-collar worker, I want to track my dog walker remotely so I can work worry-free

Examples (CoffeeHouse App)

As a marketing intern who collects coffee orders for the team, I want to submit and monitor group orders in app so that I can better manage order accuracy and plan pickup time

2. Look
bigger and ***deeper***
than the users…

User Journey Map

- An illustration of what a user experiences to achieve a specific goal

Example (CoffeeHouse App)

Persona: Anika

Goal: A fast and easy way to place and pick up group orders

ACTION **2.a**	Collect orders	Go to Coffeehouse	Submit group order	Wait for order completion	Pick up order
2.b TASK LIST	Tasks A. Collect orders from coworkers B. Collect payment from coworkers	Tasks A. Go to Coffeehouse B. Wait in line	Tasks A. Relay order to barista B. Double-check order for accuracy C. Initiate checkout	Tasks A. Gather any extra items (napkins, coffee sleeves, etc.)	Tasks A. Pick up order B. Check that order is correct
2.c FEELING ADJECTIVE	Excited to connect to coworkers Worried about making order errors	Anxious about getting back to work in time	Stressed about entering each order one by one	Anxious about time	Relieved that order is ready Hopeful that everyone's orders are correct
2.d IMPROVEMENT OPPORTUNITIES	Offer a way to easily collect multiple orders	Create an app for advance ordering	Offer a way to easily collect multiple orders	Create an app that offers order status updates	

Benefits of User Journey Mapping

- Helps UX designers get a bigger picture of the user stories
  - Avoids partial solutions
- Reduces impact of user & designer biases
- Highlights new pain points
- Identifies improvement opportunities

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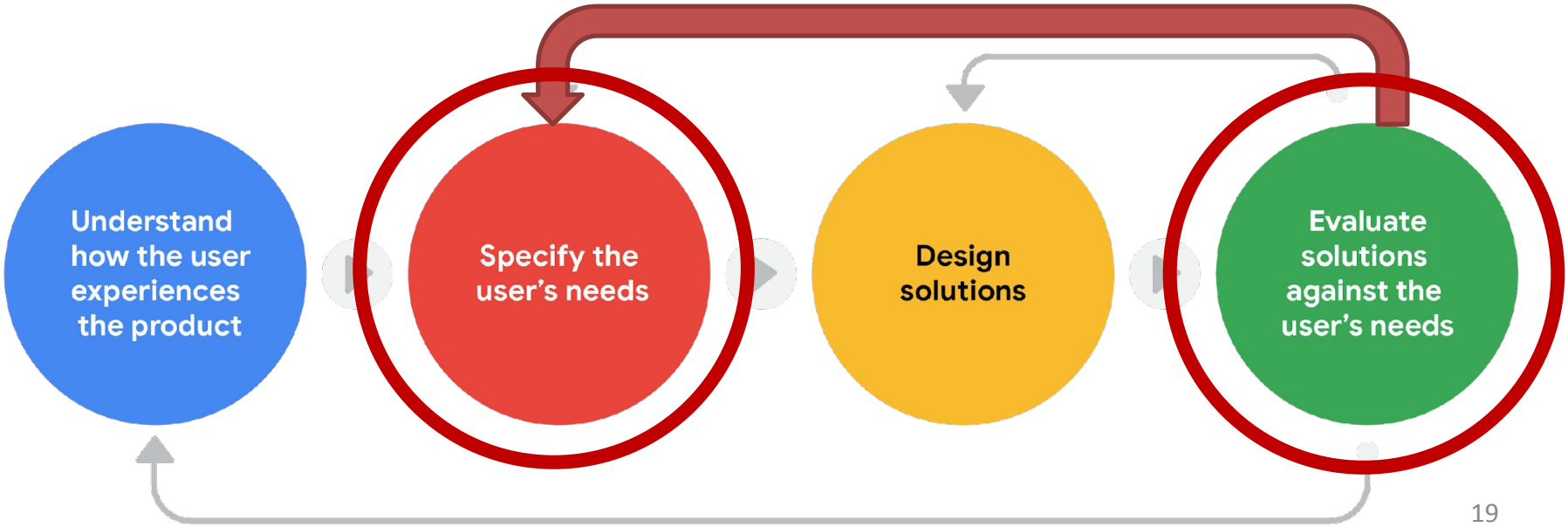

“How Might We…” (HMW)

- A design thinking activity used to translate problems into opportunities

- “How… ?”
  - It’s questions, not answers
- “Might”
  - All possible solutions count
- “We”
  - Teamwork

Example (Parent-Kid Cycling)

As a parent in New York, I want to install a new seat on my bike so that I can ride it with my two-year-old kid

How might we make sure that the seat is safe and comfortable?

HMWs in Design Sprint

- They are stickers
  - Focus on questions, not solutions
  - Quantity/diversity over quality

Best Practices for HMW (1/2)

- Amp up the good
  - How you might use any positives in the problem as a solution?
- Explore the opposite
  - How you'd solve the opposite of the problem you've outlined
- Change a status quo
  - Think of ways to completely change the process
- Break the point-of-view into pieces
  - This is especially helpful for long, complex problems

Best Practices for HMW (2/2)

- Remove the bad
  - How to remove the negative part of the problem entirely?
- Go after the adjective
  - Take any negative adjectives and try to turn them into positives
- Question and assumption
  - Remove or change any processes that you assume have to be in place
- Create an analogy
  - Think of ways to compare this user experience to another experience
- Identify unexpected resources
  - How the problem might be solved by a resource that isn't mentioned?

Exercise (CoffeeHouse App)

Persona: Anika

Goal: A fast and easy way to place and pick up group orders

ACTION	Collect orders	Go to Coffeehouse	Submit group order	Wait for order completion	Pick up order
TASK LIST	Tasks A. Collect orders from coworkers B. Collect payment from coworkers	Tasks A. Go to Coffeehouse B. Wait in line	Tasks A. Relay order to barista B. Double-check order for accuracy C. Initiate checkout	Tasks A. Gather any extra items (napkins, coffee sleeves, etc.)	Tasks A. Pick up order B. Check that order is correct
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IMPROVEMENT OPPORTUNITIES	Offer a way to easily collect multiple orders	Create an app for advance ordering	Offer a way to easily collect multiple orders	Create an app that offers order status updates	

Create 10 HMWs for Anika

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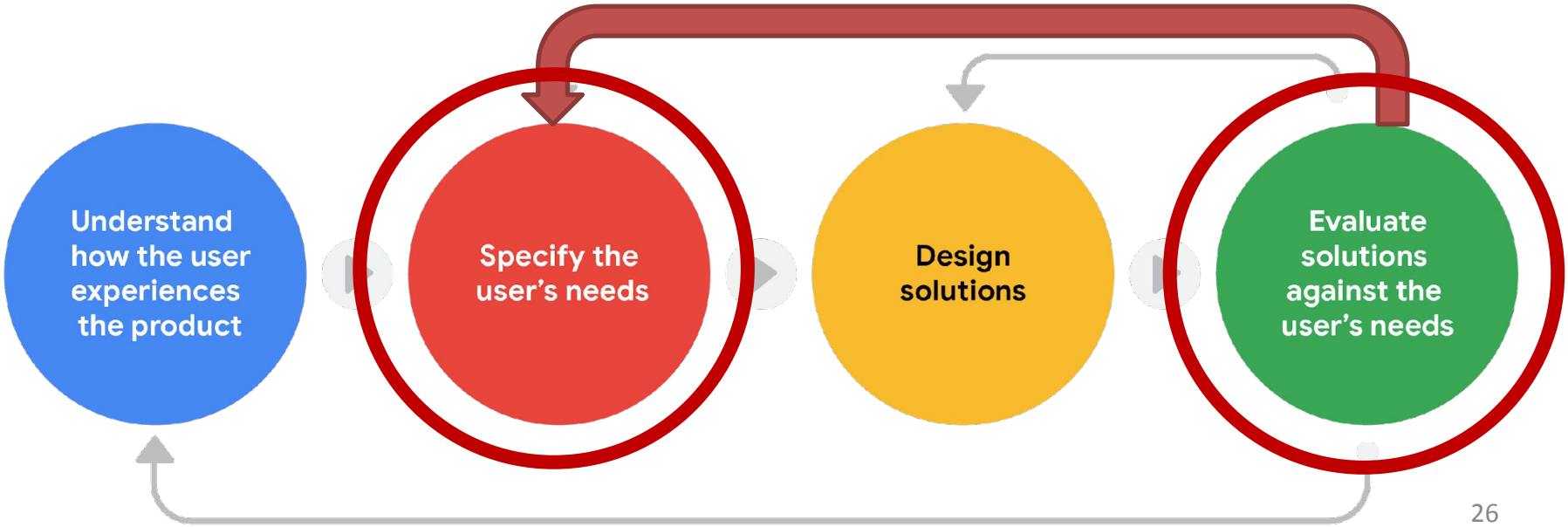
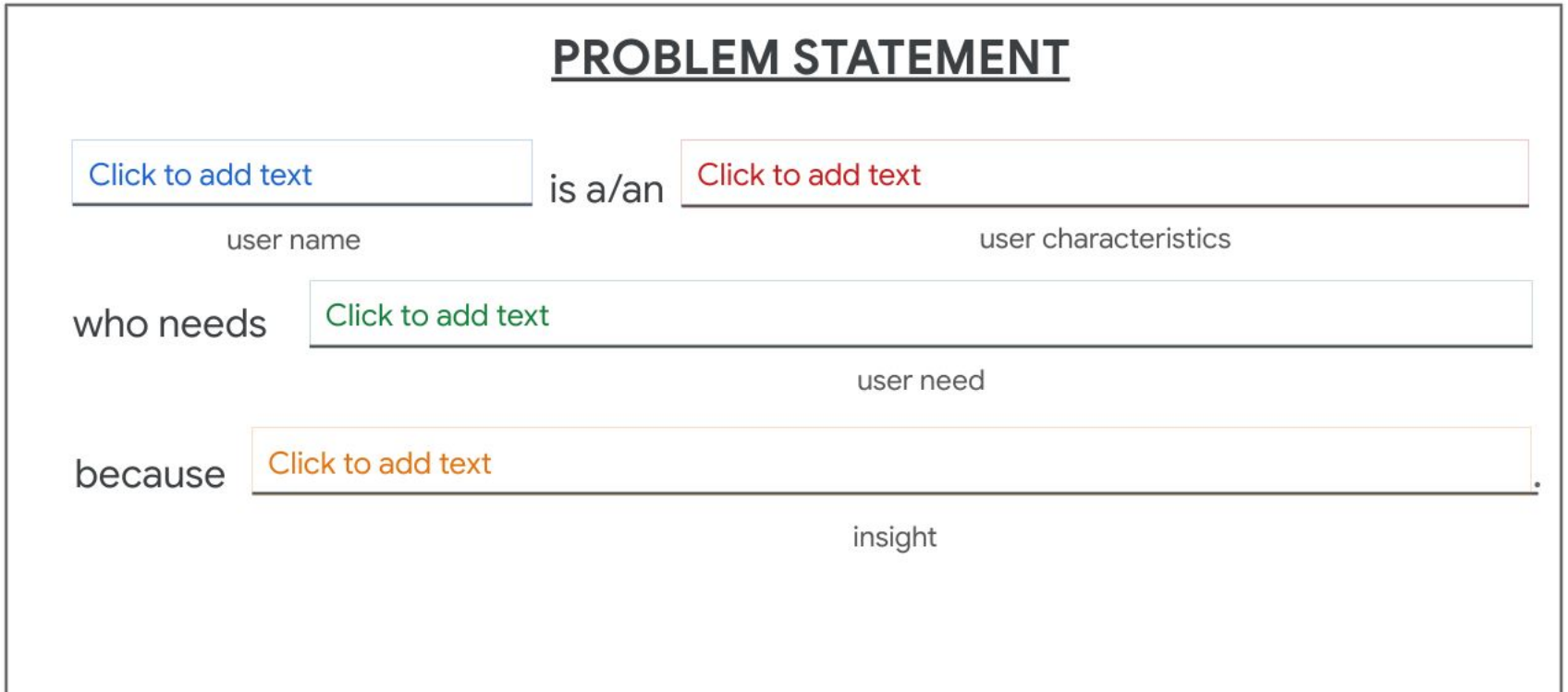


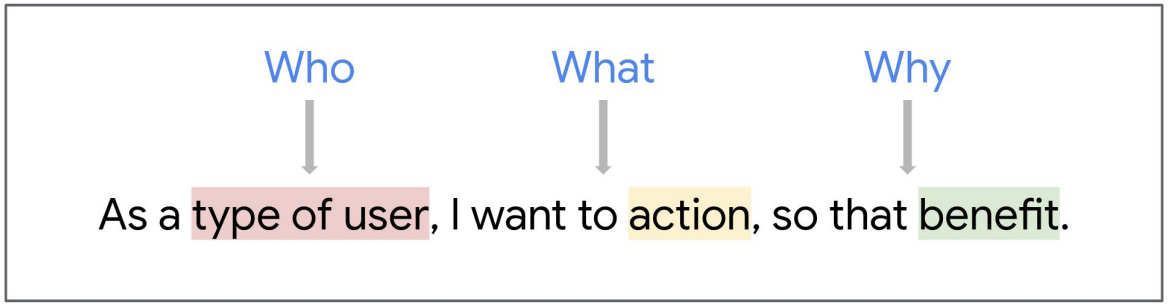
Problem Statements

- A clear description of the user's needs that should be addressed

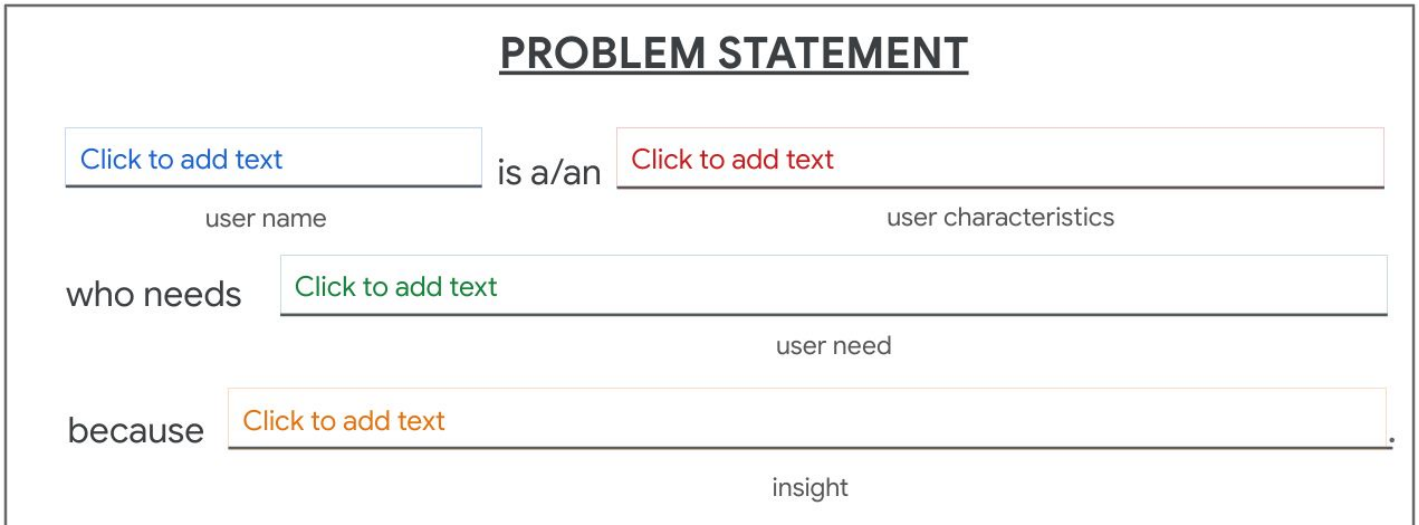


Problem Statements vs. User Stories

- User stories: What ***users*** think they need



- Problem statements: What ***you*** (the UX designers) think the users need



Example (Alarm Project)

As a college student, I want to set a loud alarm so that I can wake up early to have breakfast with my gf

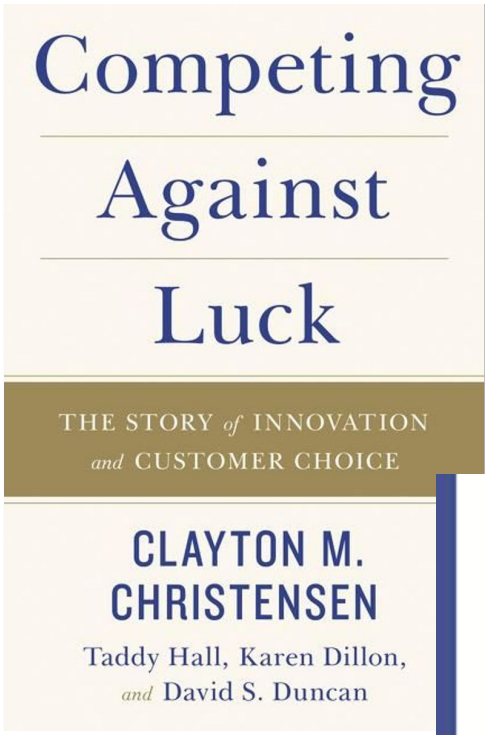
Andy is a night owl who needs a sleep motivator because he cannot turn off his computer to sleep on time

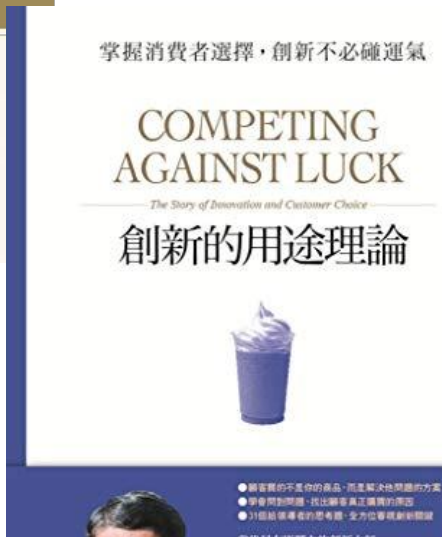
Why Do We Need a Problem Statement?

- Allows deeper understanding of users
  - Untold needs
  - Implicit constraints
- Defines deliverable
- Helps define the goals and benchmarks for success for your team (coming next)

How to get insights?

Assigned Reading





- Remember how to improve a milkshake?

The 5 Ws and H

Who

What

Where

When

Why

How

Examples (DogWalker App)

As a busy executive, I want to easily find dog walkers so that I can focus on my work every day

The 5 Ws and H

- Who
  - Arnold, a busy executive
- What
  - Arnold wants to find an easy way to hire a daily dog walker for his 3 dogs
- Where
  - Arnold is likely using the app at work, on the go
- When
  - Arnold gets frustrated when he opens an existing dog-walking app
- Why
  - Arnold thinks the app is not well-designed
- How
  - Arnold wants to go easily from the home screen to the list of dog walkers to the confirmation screen

Recursive Whys and Hows

- Why does Arnold think the app is not well-designed?
- How would he like the app to be?
- Why listing dog walkers on the home screen is important?
- Why …

- Your insight: Arnold doesn't have a lot of experience with phone apps or similar technology

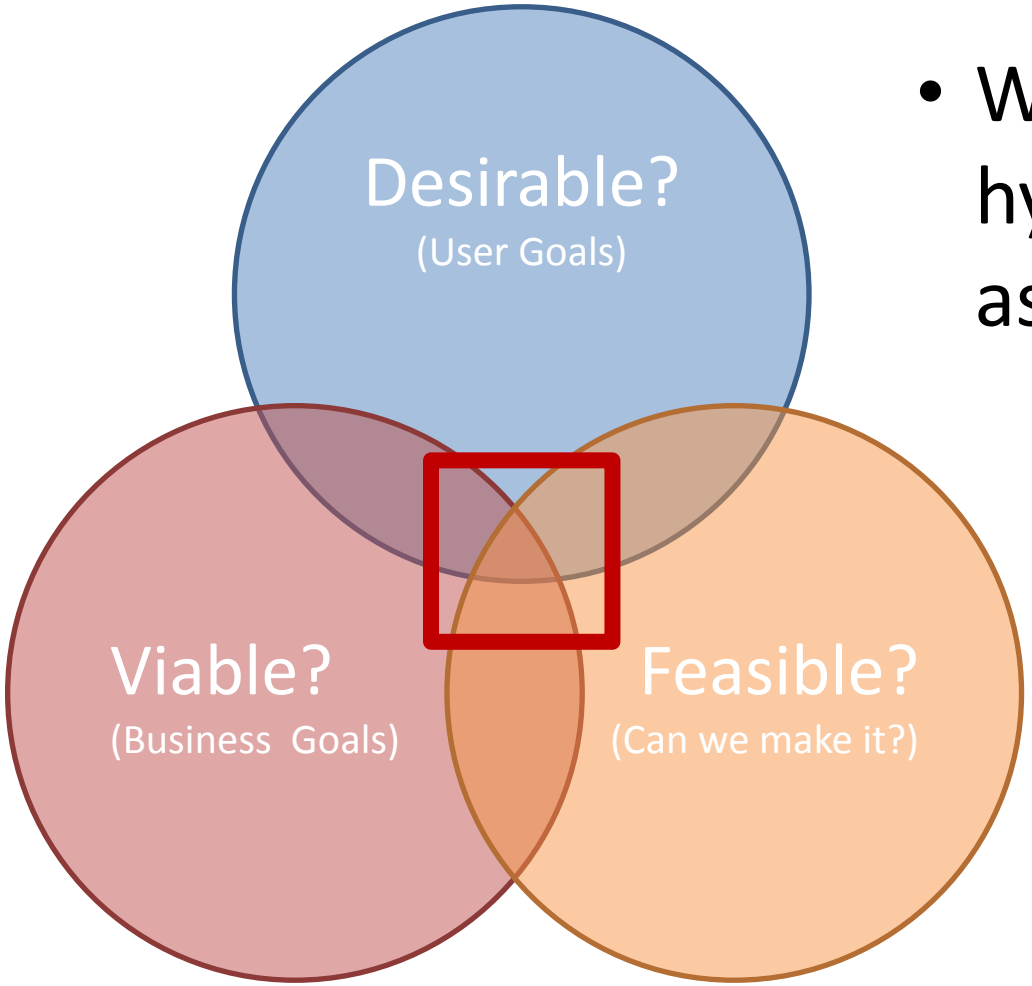
Problem Statement

Arnold is a busy executive who needs an easy app experience to hire a dog walker because he's not technologically savvy

More

- Design Problem Statements: What They Are and How to Frame Them from Toptal
- User Need Statements: The “Define” Stage in Design Thinking from Nielsen Norman Group
- Are you solving the right problem? from Harvard Business Review

Which Problem (Statement) to Pick?



- Write down your hypotheses in each aspect

Hypothesis Statement

- A written hypothesis that you think solving the problem can make the product more desirable/viable/feasible

If ____ then ____

We believe that ____

Examples (DogWalker App)

Arnold is a busy executive who needs an easy app experience to hire a dog walker because he's not technologically savvy

- We believe that simplifying app flow will
  - help Arnold find what he wants
  - increase conversion rate
  - be done in 2 weeks with 5 manpower

Testing Hypotheses

- Consult users & experts
- Via secondary UX research
  - Reports, stats, etc.
- Competitive audit (coming next)
  - ***Do not seek solutions now***
  - Only to validate your hypotheses

Customer Expert
(Sales)

Business
(PM, Marketing)

Creator
(Designer, UX Eng)

Builder
(Developer, Eng)

The Decider
(SVP, VP)

Facilitator

Preparing for Sprint

- ~~Empathize with your users~~
- Find a good place (with whiteboards)
- Set a time limit
- Assemble a diverse team
- Think outside the box

Design Sprint Day 1

1. Communicate empathy maps & personas
2. Draw user journey maps
3. Stick HMWs on the maps
   - Focus on questions, not solutions
   - Quantity/diversity over quality
4. Group HMWs and write problems statements
5. Test the hypotheses & pick the best problems to solve

Suggested Reading