DESIGN THINKING:
TEST

2021 *FIRST* California Workshop Series:
Product Development + Design Thinking

Divya Nagaraj and Sidra Nadeem
Stanford University
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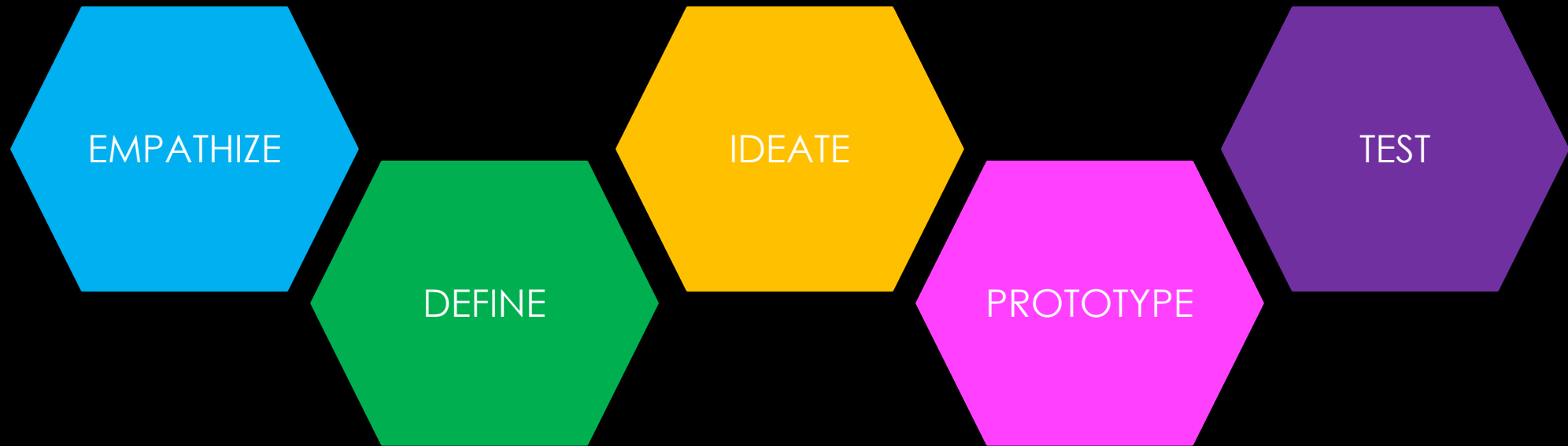Institute of Design at Stanford

Introductions

**Divya Nagaraj**
Sophomore
Computer Science + Biology
Houston, TX

Sidra Nadeem
Sophomore
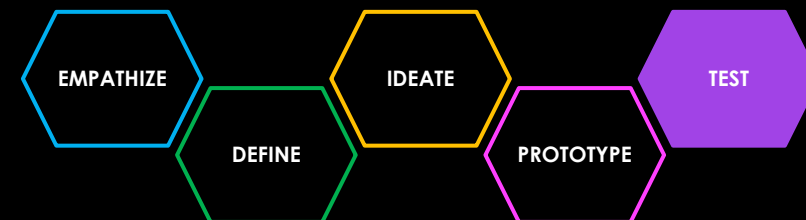Computer Science
Rogers, AR

Design Thinking

EMPATHIZE
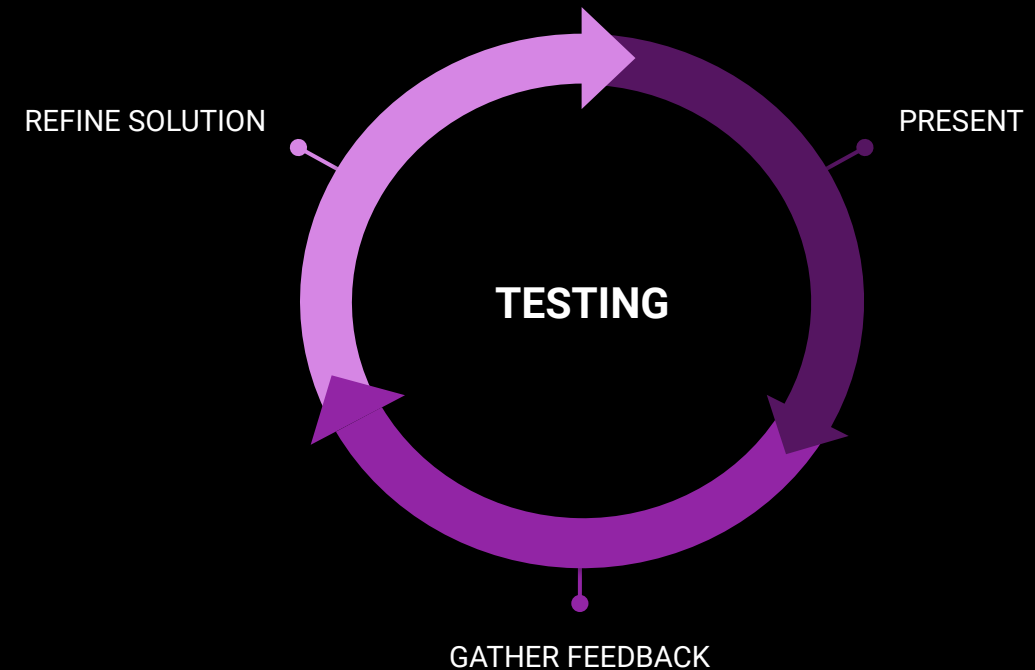
DEFINE

IDEATE

PROTOTYPE

TEST

Prototype adapted from

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Today's Focus

EMPATHIZE

DEFINE

IDEATE

PROTOTYPE

TEST

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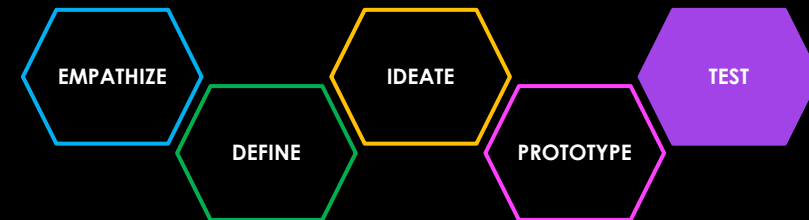Institute of Design at Stanford
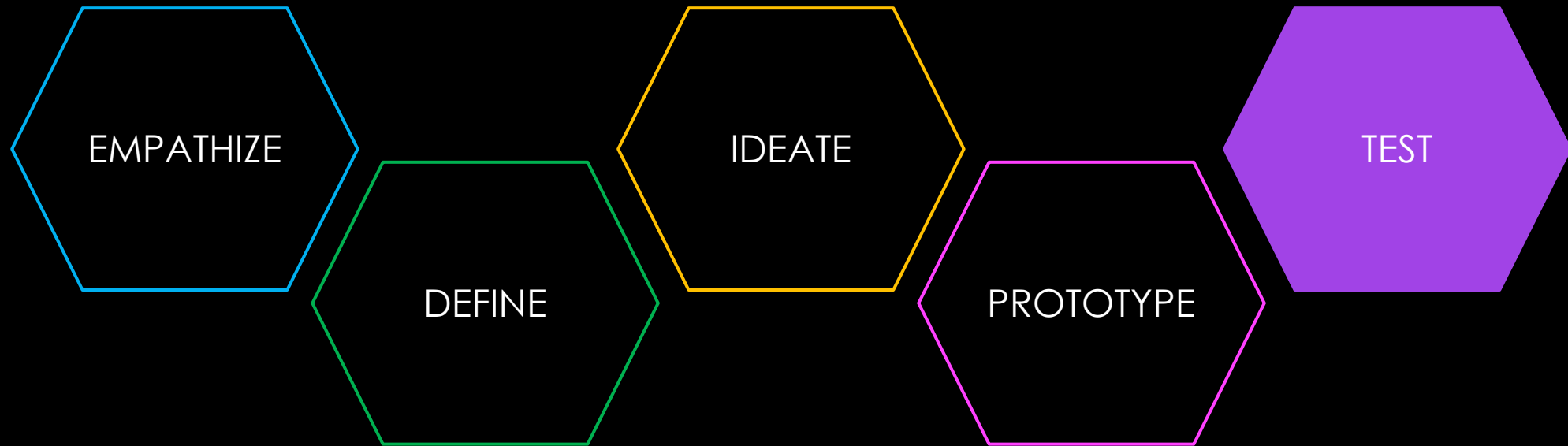
Testing is your chance to gather feedback, refine solutions, and continue to learn about your users

- Iterative mode of design process

- Place low-resolution prototypes in appropriate context of user's life

- Prototype as if you know you're right, but test as if you know you're wrong

REFINE SOLUTION

PRESENT

TESTING

GATHER FEEDBACK

EMPATHIZE

DEFINE

IDEATE

PROTOTYPE

TEST

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Create authentic experiences for users to test your prototypes

- Learn more about your user

- Refine your prototypes and solutions

- Test and refine your Point of View

Brief Overview of User Testing

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https://youtu.be/U_5_UuET7mQ

Testing from Developers' and Users' Perspectives

Devs watching QA test the product

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https://youtu.be/baY3SaIhfl0

Introduce A/B Testing

- What is A/B Testing?

- Testing different versions of a new feature

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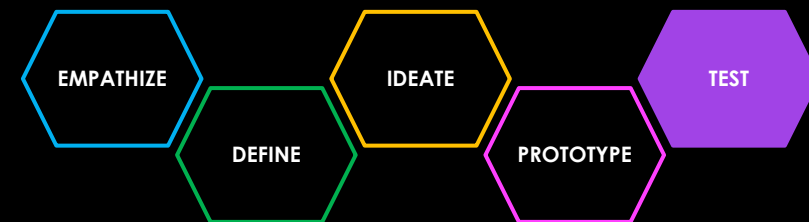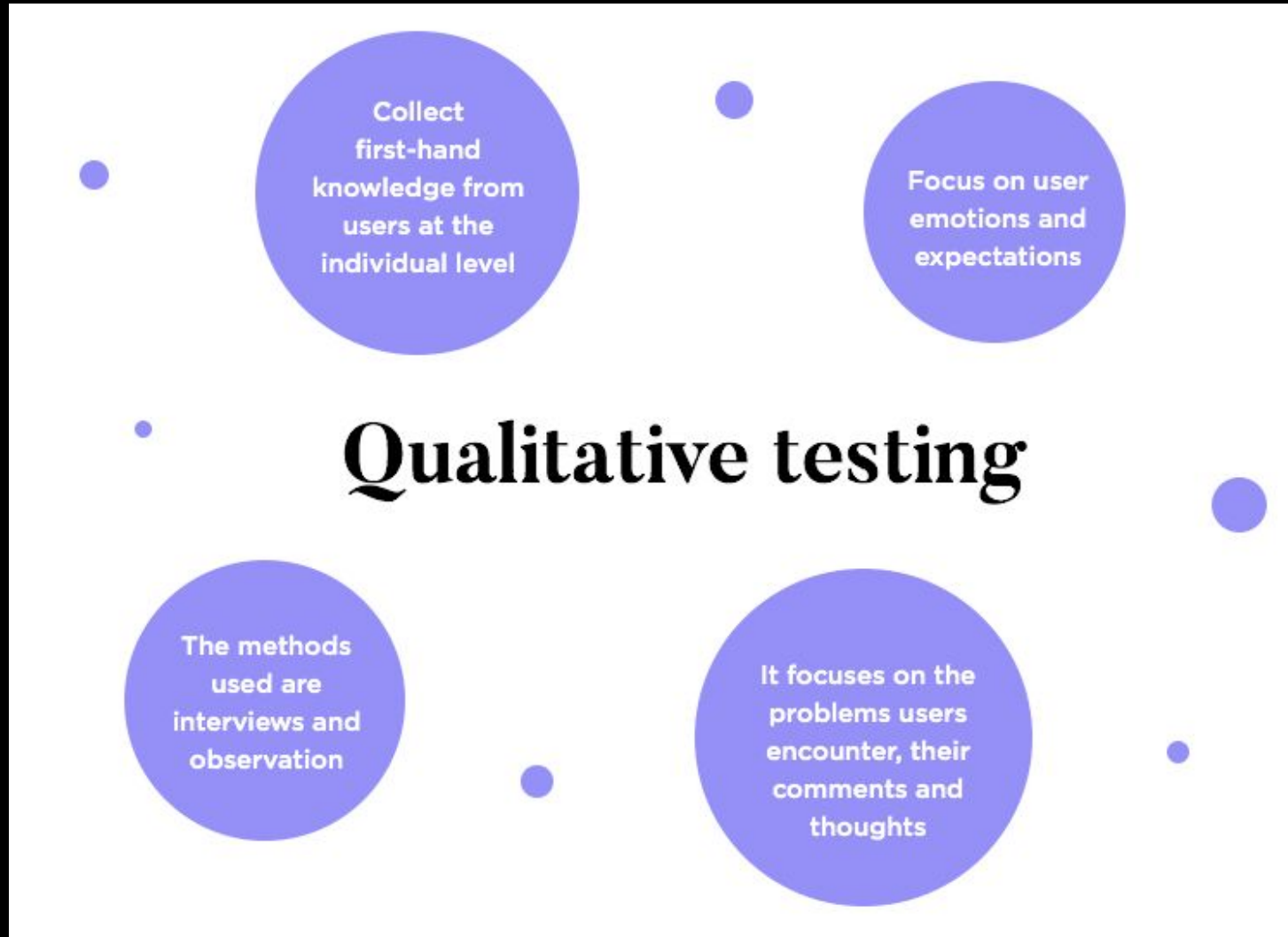
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DEFINE PROTOTYPE
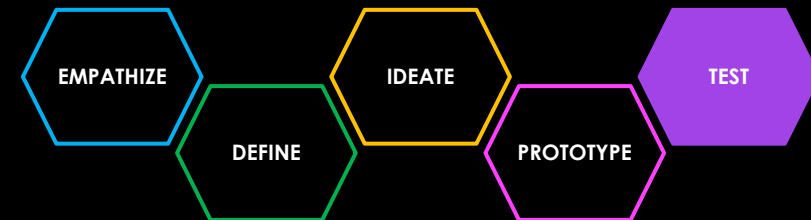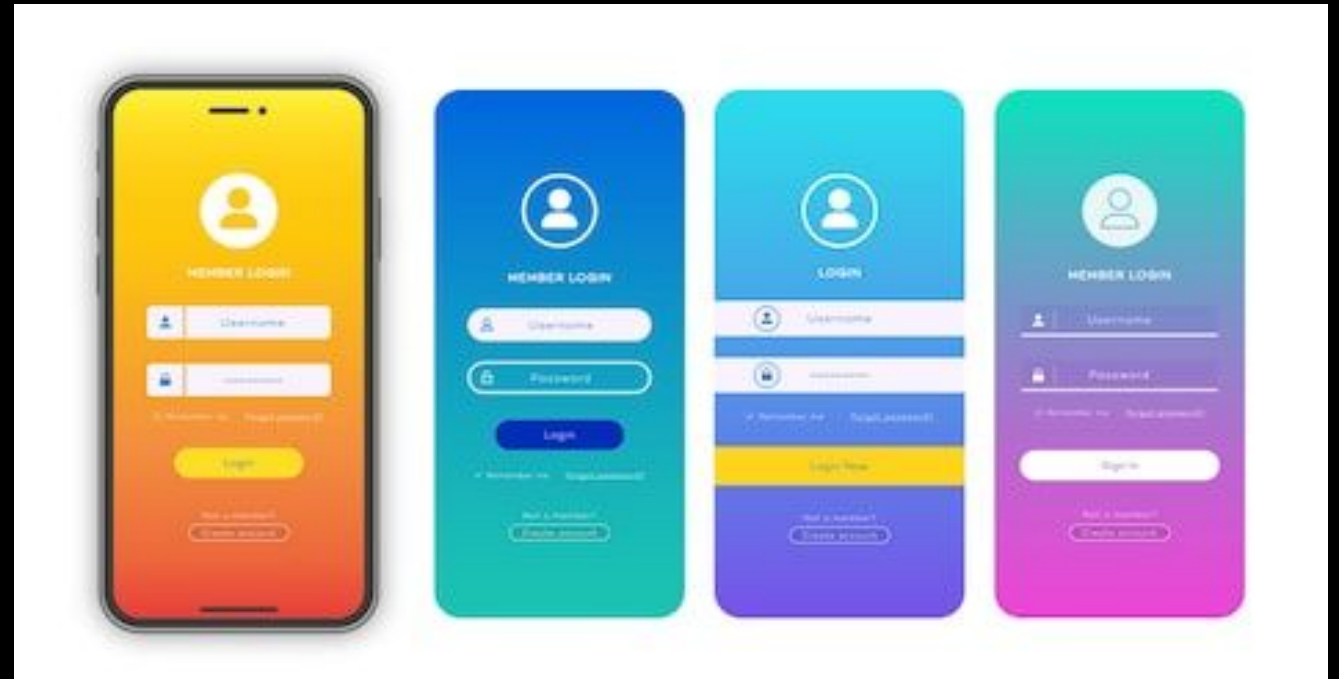
Qualitative Testing

- Observational findings

- When do users seem to struggle?

  - Look at facial expressions

  - "Aha!" or "I'm confused…"

- Generate new ideas and find pain points

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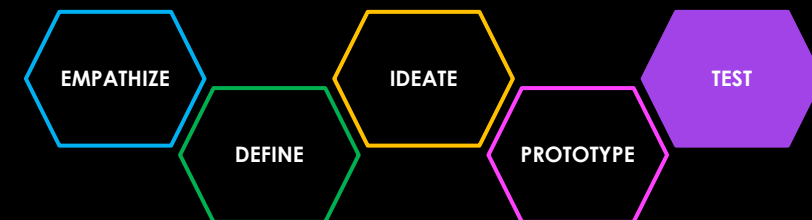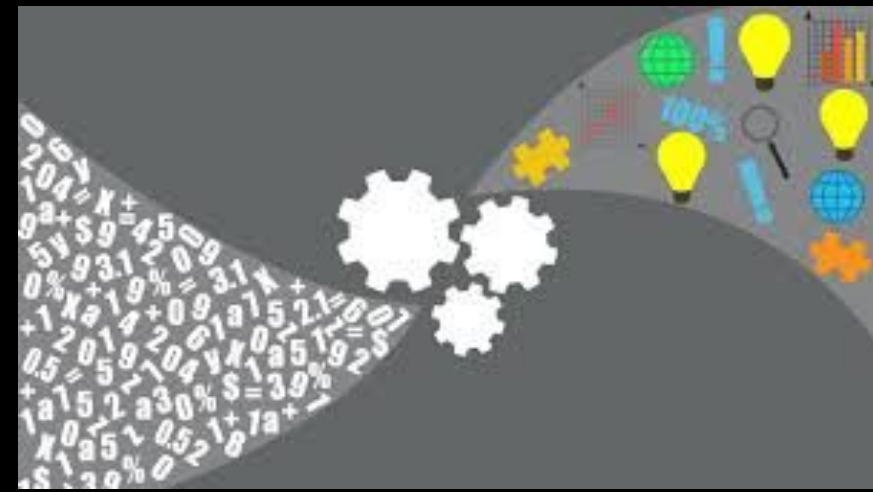
DEFINE   PROTOTYPE
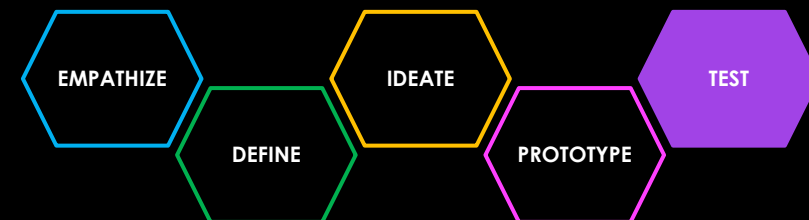
Qualitative Testing

Quantitative Testing

- Decisions are made based off of data
  - More observations + data is better
- Can describe how much better a new feature is
  - Time saved
  - New users
  - Cost
- Testing different versions of a new feature

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DEFINE   PROTOTYPE

Quantitative Testing

Analyze trends in user behavior

It is based on numerical data, statistics and percentages

Quantitative testing

Focuses on the big picture from groups with a significant sample

Questionnaires, surveys, A/B testing

EMPATHIZE DEFINE IDEATE PROTOTYPE TEST
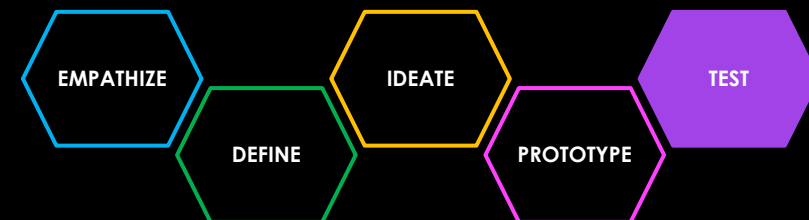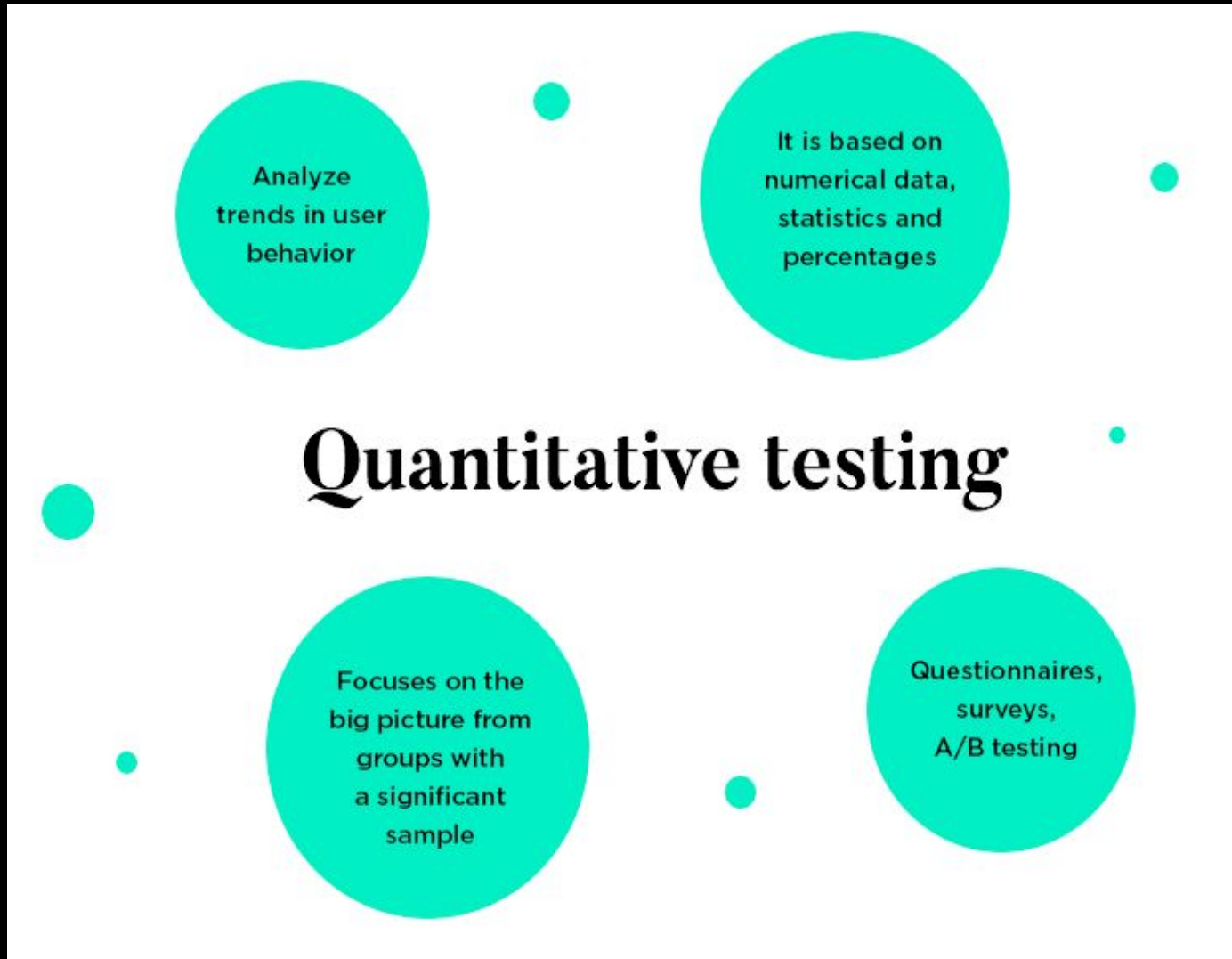
Who to Test?

- Recruiting users for testing

  - Find a diverse set of users

  - Think about extreme users

- Think about multiple users!
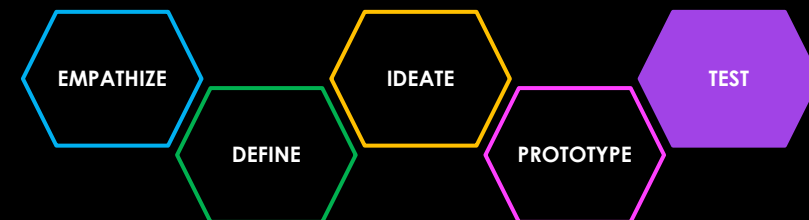
  - Ex: Lyft has both drivers and passengers as users

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Conducting a Good Interview

- Don't ask leading or biased questions.

- 5 W's - Who, What, When, Where, Why?

- Have them talk through their experience!

- Use their language.

EMPATHIZE DEFINE IDEATE PROTOTYPE TEST
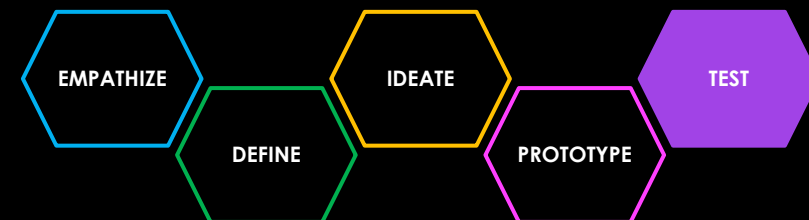
Reminder: Understand Both Perspectives

- ## Understand POV of interviewer

  - Brainstorm good interview questions about using adjustable straps on a backpack

  - Share with others!

- ## Understand POV of interviewee

  - Run the experiment on yourself

  - Ask yourself how heavy is the backpack when it's full? etc

  - Share results!

Tip: Scenes/Props/Roles

- When acting out your interviews, it is important to set the scene.

- When + where would your users be testing your product?

- What props would you need to use?

- What roles will everyone be playing?

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Demonstration: Headphone Sound Quality

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But sometimes user testing doesn't go as expected

USABILITY OF FRUIT

Breakout Rooms: Backpacks (~15 min)

What questions can we

ask our interviewees

about their experience

with our new backpack

design?

Problem:

- Heavy backpacks are uncomfortable for commuting students.

Proposed Solution:

- Backpack with multiple adjustable straps.

Scene:

- Outside park that allows users to run/move with pack.

Roles:

- User, interviewer, documenter, photographer

Collaborative Breakout Sessions

Breakout sessions are NOT recorded.

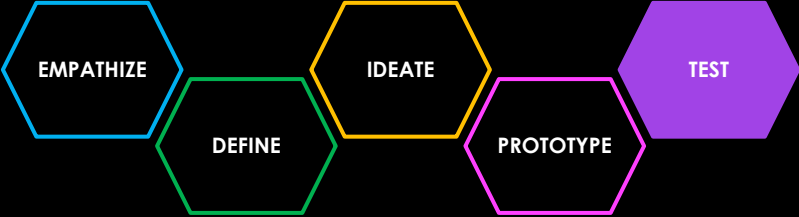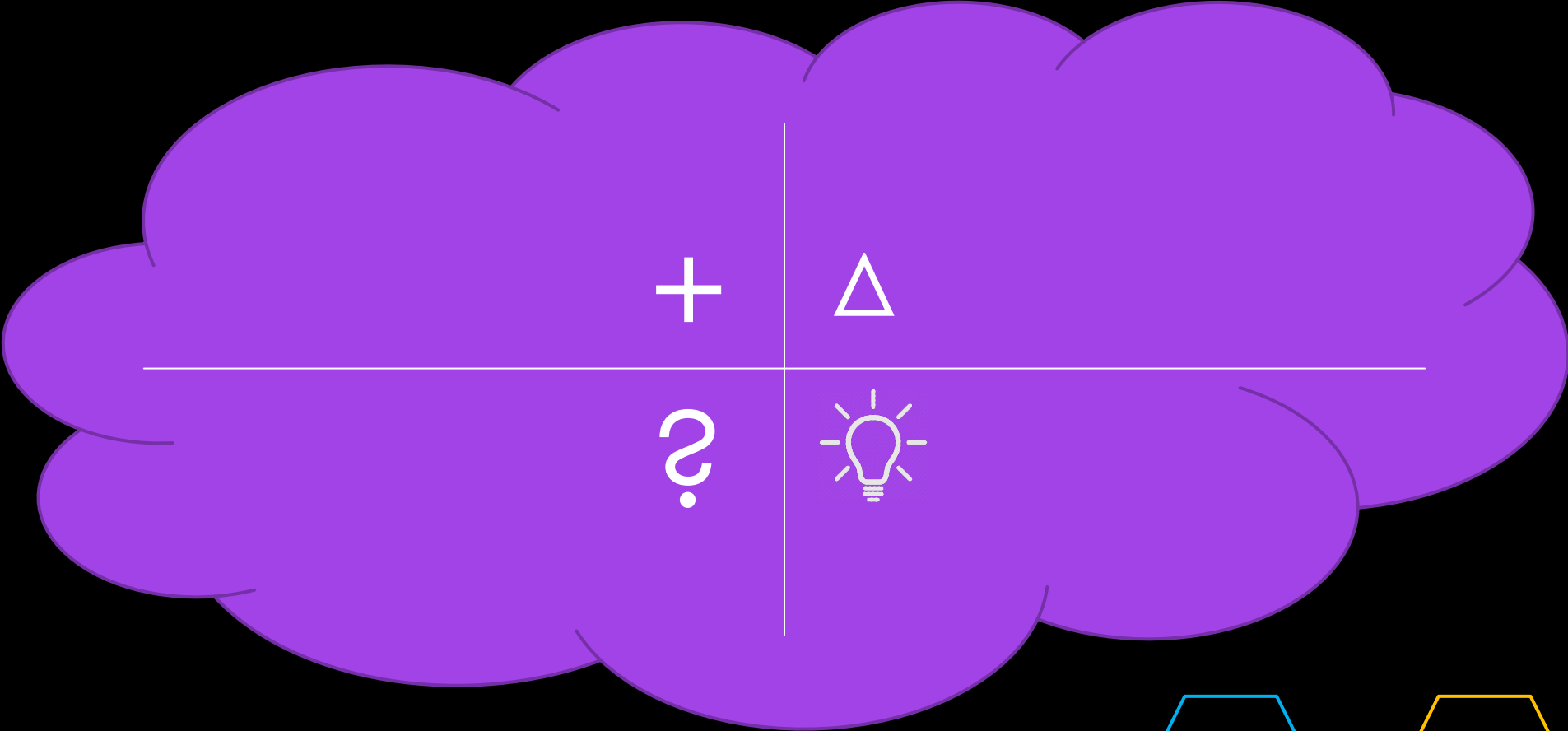Don't be shy to show your friendly smile and participate!

Join back into the main room after to share and learn more.

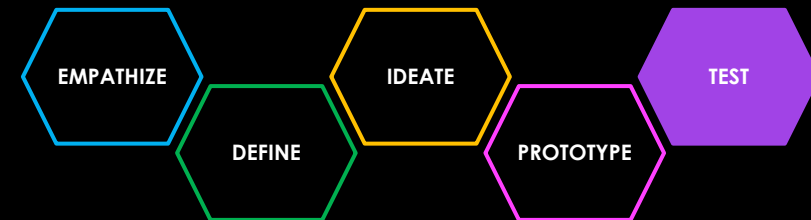# Breakout Rooms: Share out

- How helpful?

- Complications?
  - Is the strap system too complicated?
  - Can students feel the load?
  - Is it user-friendly? How easy was it to use?

- Benefits/Flexibility?
  - When running/walking, is it comfortable?
  - Would you like to add or change any features (adjustable straps)? - roll them up
  - Is there anything you want to remove from the backpack?

Feedback Capture Matrix

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Feedback Capture Matrix

Integration of Maps in the UI

Promising user testing interviews!

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Maybe change the app color palette

X feature is a little confusing to me

Why is this approach more successful?

When should people use this app?

?

This made me think of Y which could be a great integration!

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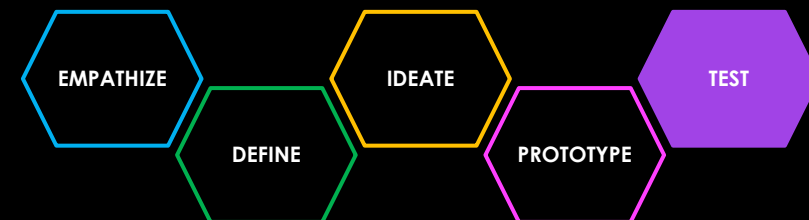
TEST

Homework

- Think about major research questions/hypotheses

- Draft a test plan

  - Think about a qualitative and quantitative test

  - Who should you interview?

- Try to run at least one type of test

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Thank you for attending!

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