



UX Fundamentals

Week 4:

Synthesis + Storytelling

Feb 15 2021

Siebel
Center
for
Design

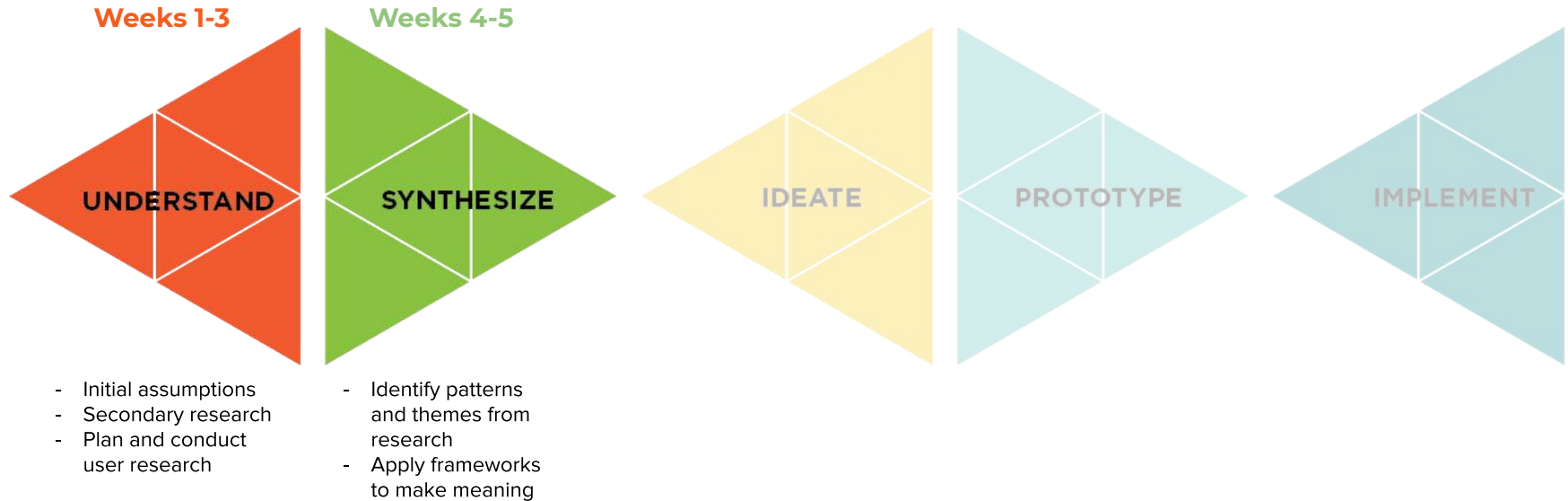
Assignment for this week:

Conduct user research, begin synthesizing insights

- All interviews should be conducted by **Weds. Feb 17.**
- Synthesize insights in **Deliverable 2** by **Sun. Feb 21.**

Introduction to Storytelling & Synthesis

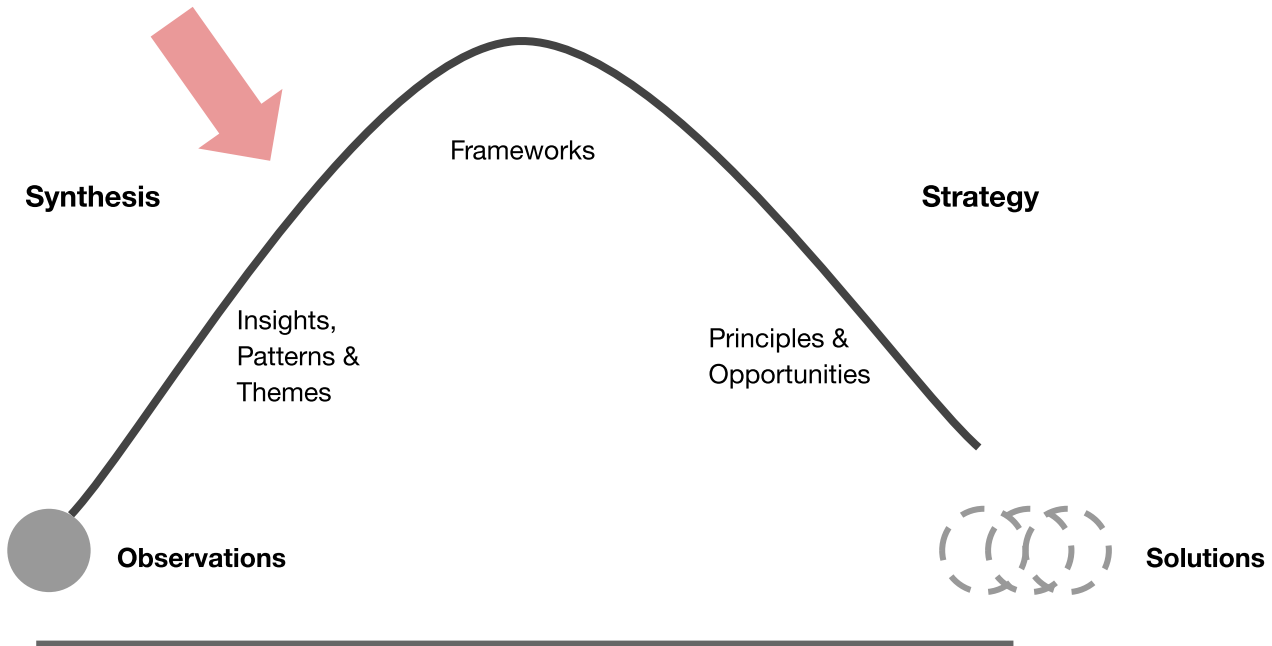
Where we are in the process



Abstract



Concrete



Synthesis

Insights,
Patterns &
Themes

Frameworks

Strategy

Principles &
Opportunities

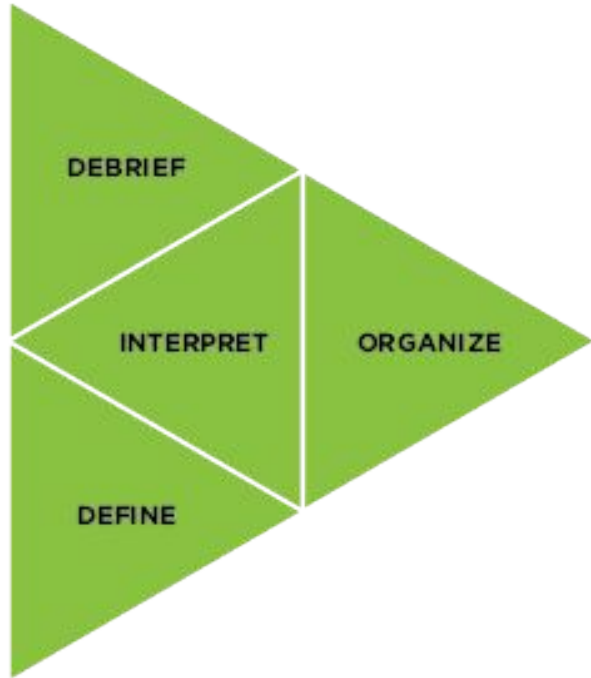
Observations

Solutions

What is Synthesis?

- Act of making sense of what we've seen and heard during observations and interviews
- Takes us from inspiration to ideas, from stories to solutions
- Enables us to establish a new perspective and identify new opportunities

Processes + Practices



SYNTHESIZE

Processes

Debrief

- Filter content for relevance and prioritize information
- Communicate content

Organize

- Collapse content
- Chunk & find themes
- Develop insights

Define

- Identify design and research opportunities
- Define the project scope
- Develop how might we statements

Now What?

Interpret

- Identify what else you might need to understand moving forward
- Build questions to inspire ideation

Four Key Activities for Synthesis

1. **Debrief:** Tell stories about individuals
2. **Organize:** Look for patterns
3. **Define:** Extract the key insights
4. **Interpret:** Create frameworks to best communicate

1. Tell Stories About Individuals

Debrief: Tell Stories about Individual

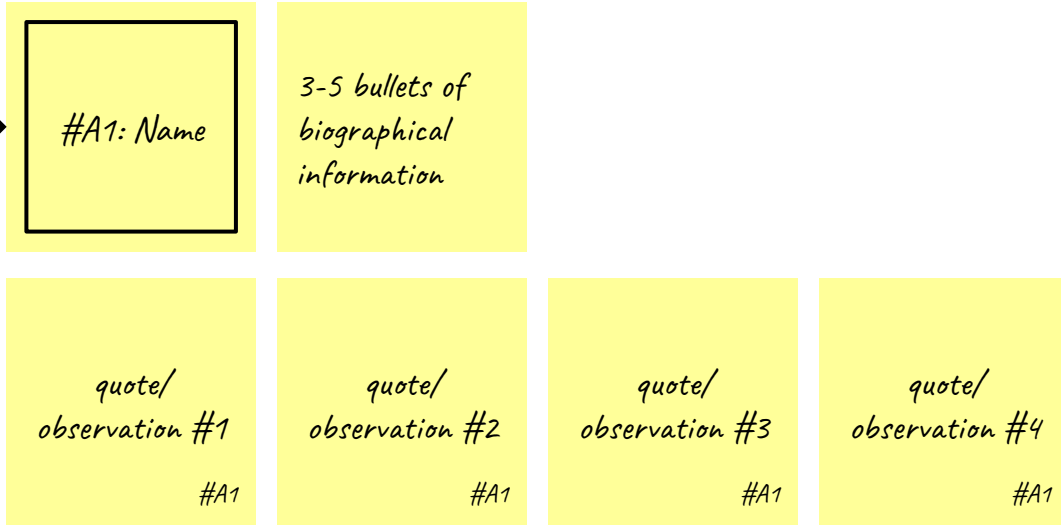
Downloading your interviews for synthesis

- Take turns telling stories
- Actively listen to your team members and look for meaning
- Analyze and interpret meaning
- Focus on the highlights
- Go deeper

“Downloading”

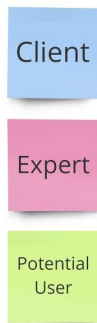
A structure process for recapping interviews and observations to establish a shared understanding of collected data.

Coding interviews allows us to connect each data point back to its source



Downloading in Action

Color coding of interviews can help you stay organized!



Claire (Client)

- Sixty year in Marty's lab - works in inner atmosphere chemistry and with platinum cross-coupling reactions
- Current layout in her lab
- Concern of solvent load & flammable solvents
- Open vs. closed floor plan layout
- No where to eat / drink
- enter lab only with scientist supervision
- Idyllic lab layout
- pre-filled cartridges
- Chem Draw
- Creates a ton of chemical waste, mostly from purification
- peptide synthesizer

Nick (Expert)

- 2nd year PhD Chem Student
- Helps reconfigure space/layout
- Work in Lab
- Still in Build Phase -Setting in equipment (Electronics)
- Kyle -Mabel -Water cleaning (decontaminating tanks)
- Danny -over closed case -Alison -during -An overview to the -CO2/NO2 -One Design
- Block A Block B (like Building Blocks)
- Part of Block A reacts with part of Block B
- Reacted parts go away
- "Like a two-part epoxy"
- Automation Benefits
- Allows us to do more
- Machine went from doing 1 thing at a time to 12
- Does the hard parts well, still can't measure too stuff
- Future-Robot arm to weigh everything
- Molecule Synthesis Explanation
- "Building Blocks"
- Everything is a brick, a bunch of bricks make a building
- Iterative Process -like making a chain - one side reacts, then the other
- Weigh stuff into reaction vials -Bases -Something Block

Kelsie (Expert)

- Worked in Marty's lab for over a year -history as a virologist this is her 4th lab works on hemostromosis
- hemostromosis Research
- Social Dynamics
- Lab is vicious!
- hopes that Vandana does not get kicked out
- In-group/out-group
- The lab is messy because chemists are messy
- Culture
- Lab Olympics
- Pictures of people being silly posted around
- The group is very diverse - Lots of different skills
- Groups knows how to utilize each other
- Marty
- Marty's metaphors
- Support and energy is infectious
- "Every time Marty gets excited, it's more work for me" -Nick
- Great communicator
- Understanding the Space
- "Instead of fixing a broken chug, MML, replaces it."
- "My job is making sure that everything is safe (Andrew...)"
- "I am the main organizer. My job is looking to the rest of the night."
- Chemistry is not and specific, we are working on universal research.
- Wants
- "As intense as we are, we definitely know how to have fun."
- Twice a year clean-ups, Marty buys lunch
- Entire space under a ventilation hood
- Website is poorly done

Marty (Expert)

- Director
- Want to create a space where everyone is welcome
- Champion this molecule making for everyone
- health maker lab -new breederlike idea, but didn't have expertise
- future - anyone can propose ideas like that
- using clay or Lego to build a structure vs. brick
- MML is making smaller pieces of clay
- can experts explain water liquid vs. ice solid to 5yo
- "Nick is the best for setup"
- Iterative development with me - doing fine, humans best
- Current role - Director - really good and excited to be in the right team to make a bigger vision
- Open how - feedback for who and regulatory and need to be together - the right team to make a bigger vision
- Wanted to give a full representation of the lab
- collaborative community of chemical workers
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Ramona (Expert)

- Marty's Admin/Business Assoc. - began in B1's -subgroup on training & marketing B1's Chem knowledge
- Metaphors
- Less of a vending machine, it's about creating, not purchasing
- Brewery Tour. You leave with a glass
- Production Line
- Online Customization
- Spreading the word
- Website should scream Innovation
- Website is currently so outdated
- Campus is already saturated w/ flyers
- Cool Souvenir with website?
- Drawing people in
- Value Added (Community, University, Individual, Science)
- Everyday Molecules (coffee, serotonin)
- Showing how it's being used
- "We're affected by the outcome of chemistry on a daily basis"

Arun (Expert)

- possible with Marty
- Day in Lab - chemical, absolute organic chemistry
- Zero background on biology
- project related to anti fungal
- has enough size - naturally - need - create large - amount - bind - human benefits
- how can we remove toxicity of this drug?
- binds to cholesterol - is harmful
- if change 3d orientation of sugar, doesn't bind to cholesterol
- less potent, can take more, but less effective
- more water soluble - less regulation
- Bring in people around community to create solutions
- health maker lab - new breederlike idea, but didn't have expertise
- future - anyone can propose ideas like that
- using clay or Lego to build a structure vs. brick
- MML is making smaller pieces of clay
- can experts explain water liquid vs. ice solid to 5yo
- "Nick is the best for setup"
- Iterative development with me - doing fine, humans best
- finding a way to attach to target and not mammal cholesterol
- Fatal for immunocompromised people
- Iterative development with me - doing fine, humans best

Presenting a Story

Lisa

30yo, 3x cancer survivor

5yo — Ewing's Sarcoma, in remission

13yo — 2nd Osteosarcoma, in remission

30yo — Hylanizing Clear Cell Carcinoma, in remission

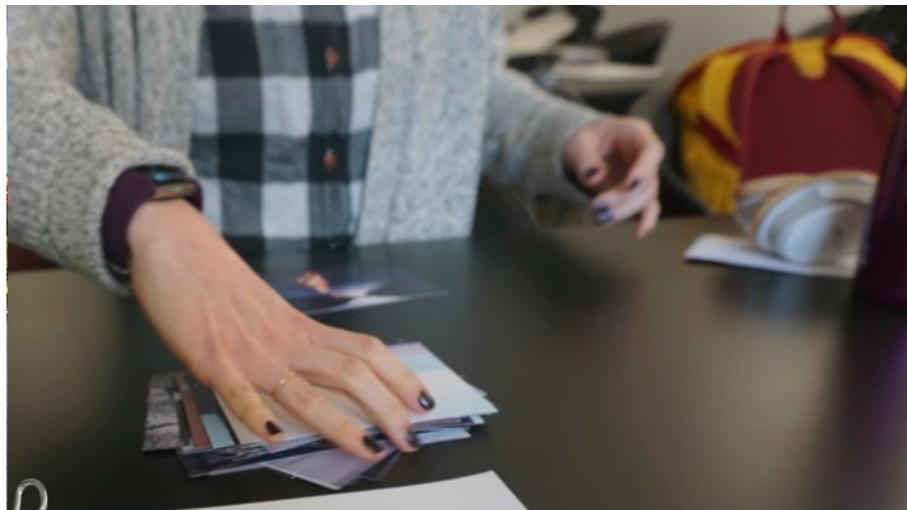
Pursuing a master's degree in games & education, after deciding not to be an oncologist for fear of spending her life in a cancer ward.

"I was told I was not going to make it through the weekend... my parents were asked to make funeral arrangements. The hardest thing was saying goodbye to my sister."

"No way did I think that bump in my mouth could be cancer."

"Once she got out of the Google terror rabbit hole she actually became useful — and convinced me to go to the best surgeon, who invented the procedure."

"I imagined all the things I would do when I grew up — going camping, going hiking. This one year was the tradeoff I would make to have the rest of my life."



2. Look for Patterns

Organize: Looking for Patterns

Identifying Themes in the Stories

- Look for commonalities and themes, bucket like information
- Consider the relationships between buckets
- Group and re-group
- POINT (Problems, Opportunities, Insights, Needs, Themes)
- Develop additional questions/look for holes in research

Identifying Patterns & Themes

Organizing data gathered from interviews under emergent themes



3. Extract the Key Insights

Define: Extract Key Insights

Develop a set of insights around the research.

What is an insight?

- Insights are revelations - the unexpected things that make you sit up and pay attention
- Insights bring visibility and clarity to previously hidden meaning
- Insights allow us to see the world in a new way

Example #1: Molecule Maker Lab – democratizing molecule making

Kyle Smith

PROFESSOR IN MECHANICAL SCIENCE AND ENGINEERING,
APPLIED FOR MML SEED FUNDING

“I feel very hesitant about disclosing the details of my plans especially before I get my funding.”

“If people at Illinois and my colleagues saw what molecules I’m choosing, they might make a connection and figure out what I’m trying to do.”

“Sharing my ideas could undercut my chances of getting this work supported.”



INSIGHT #4

Potential collaborators are fearful and hesitant to share their ideas.



“There is a generational divide on sharing data.”

NATE RUSSELL

PhD student studying AI & machine learning



“When I hear an idea, it has no value. Come back when you have something tangible.”

MARIA JAROMIN

Technology Manager, OTM

Example #2: Illinois App - supporting wellness on campus

Student Stories: Alyssa



Junior,
Industrial Design,
First Generation Student

“People don’t think [mental health] is as important as it is... there’s a lot of downplaying themselves.”

“My friend group openly complains about things... there’s a lot of covering things up with humor.”

“We don’t really say ‘mental health’ [among friends].”

“Professors here ‘preach empathy’ but don’t practice it.”

“One professor said ‘I don’t know why you guys are so tired!’ while talking to another professor.”

Insight #3

It's hard to talk (and be taken) seriously about mental health concerns.

As a result of toxic cultures, stigmas and misinformation, many students make light of their own mental health issues using humor or social norms to justify their behavior.



“People live at sort of the ‘ehh’ level... it’s cute for the meme.”

- Kolton,
Sophomore,
Global Studies



“Students often make jokes about being depressed or feeling suicidal... there’s a stigma around seeking help.”

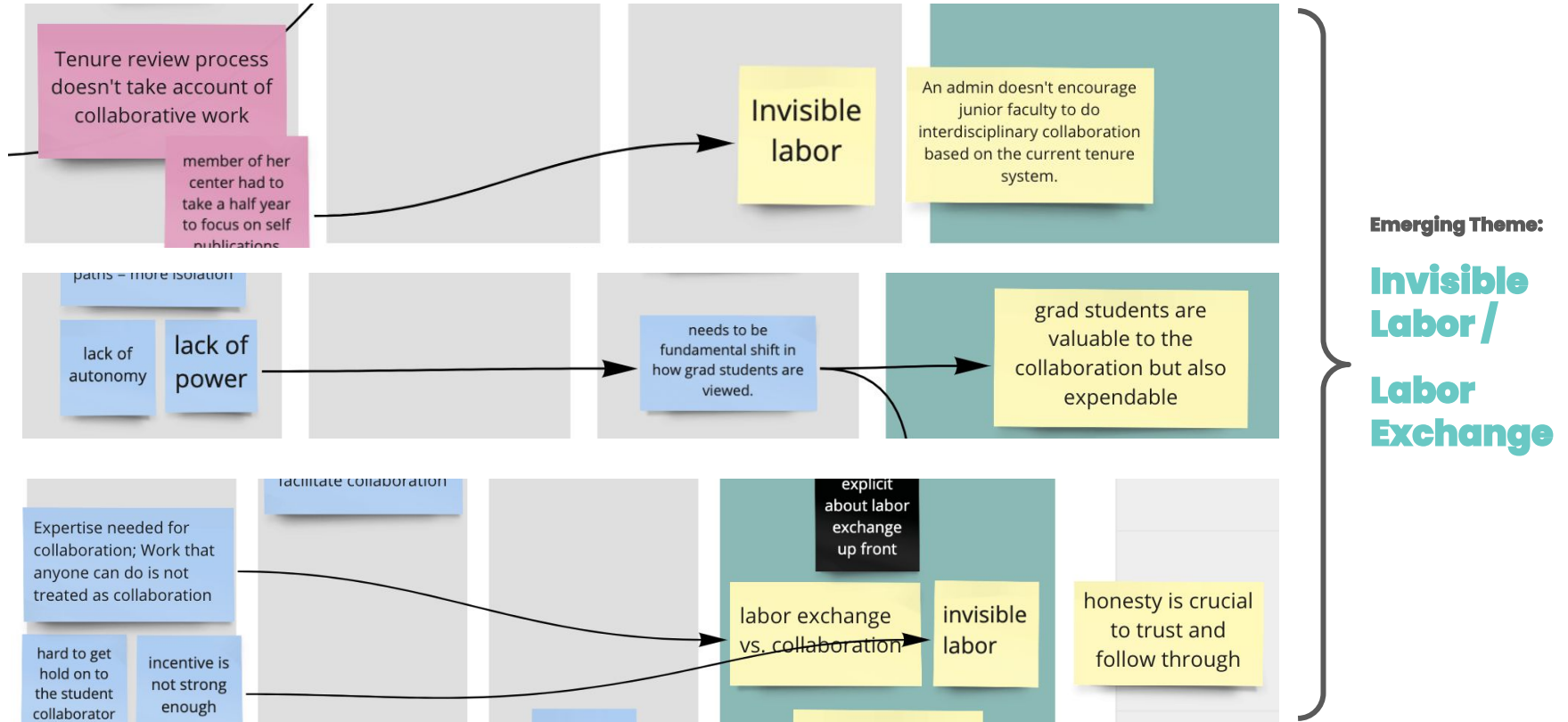
- Ally,
Junior,
Urban Planning/
Sustainability



“Promoting self-care is very hard when they’re receiving conflicting messages... a student’s PhD advisor told them ‘If you had time to shower, you aren’t dedicated to this program.’”

- Jennifer Carson,
Stress Management Coordinator

Example #3: UIUCollab



Key Insight

The system needs to promote all contributions as equal.

“When the time came for his third year tenure review, his department had told him that none of his collaborative papers would count for tenure.”

-- A professor

“They don't necessarily treat female students' work the same way they treat male students' [work]...it feels like when you're trying to present to those PIs you have to go through two layers of defense before they will actually believe what you're saying.”

-- A grad student

- Decide how you want to be represented
- Promote projects from individuals from marginalized groups
- Acknowledge labor exchange as “notable collaborations” regardless of status of individual, ie. undergrad vs. postdoc

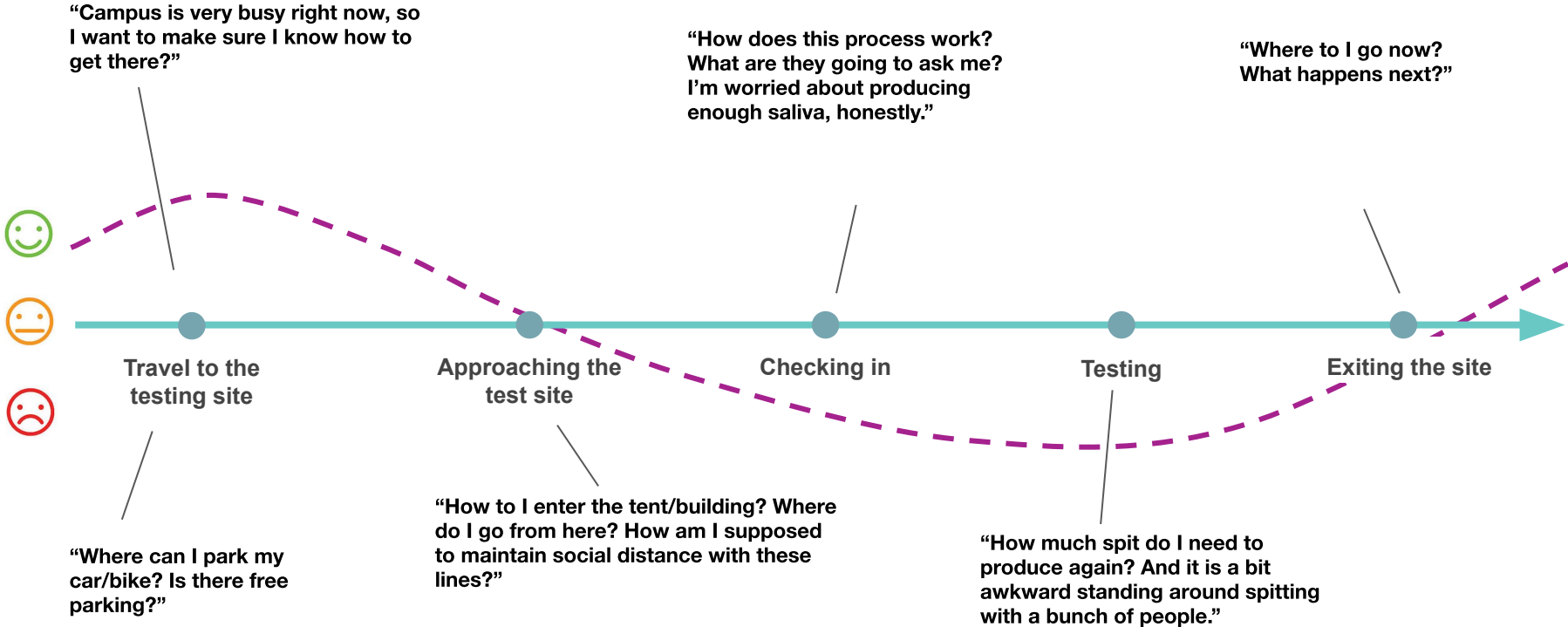
**4. Create
frameworks
to best
communicate
findings**

Interpret: Storytelling + Frameworks

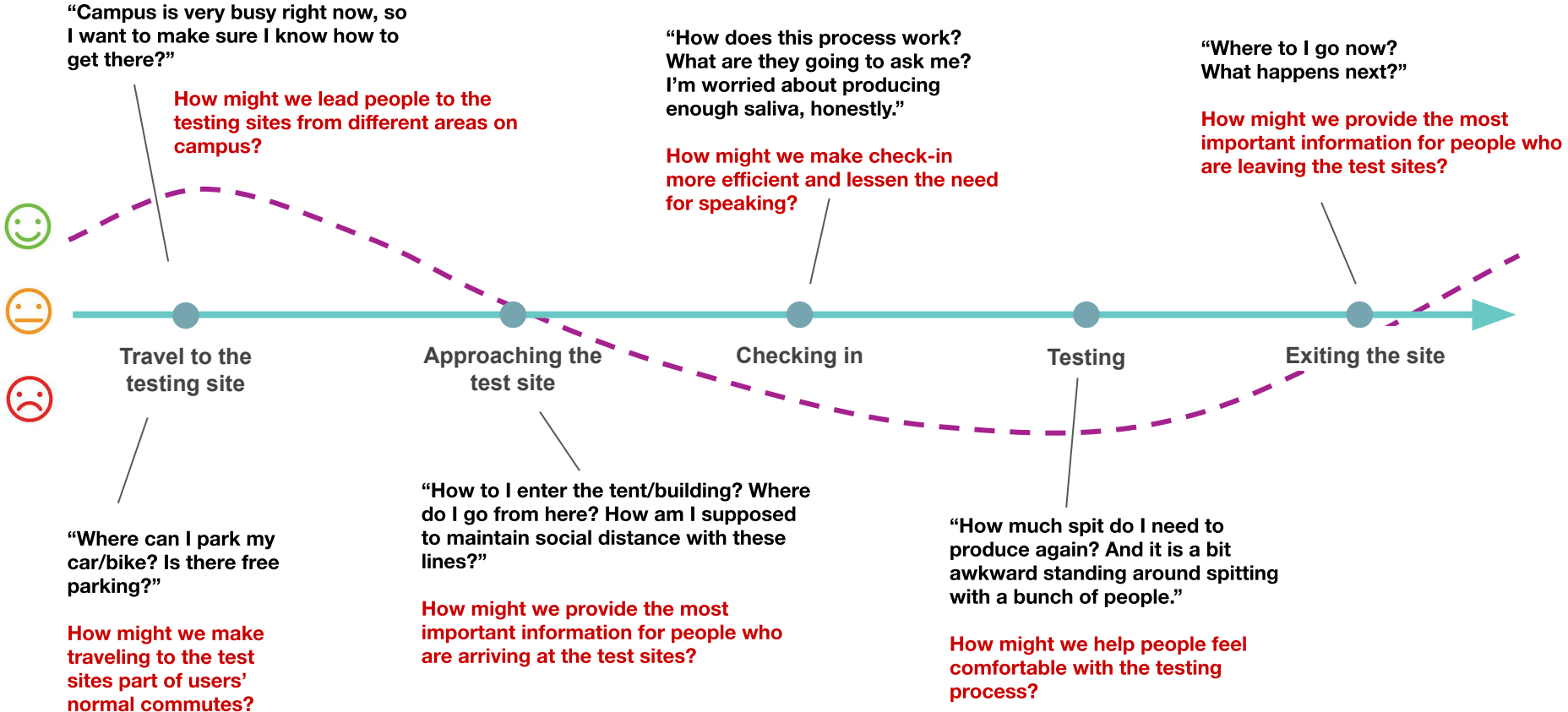
Communicating your research findings

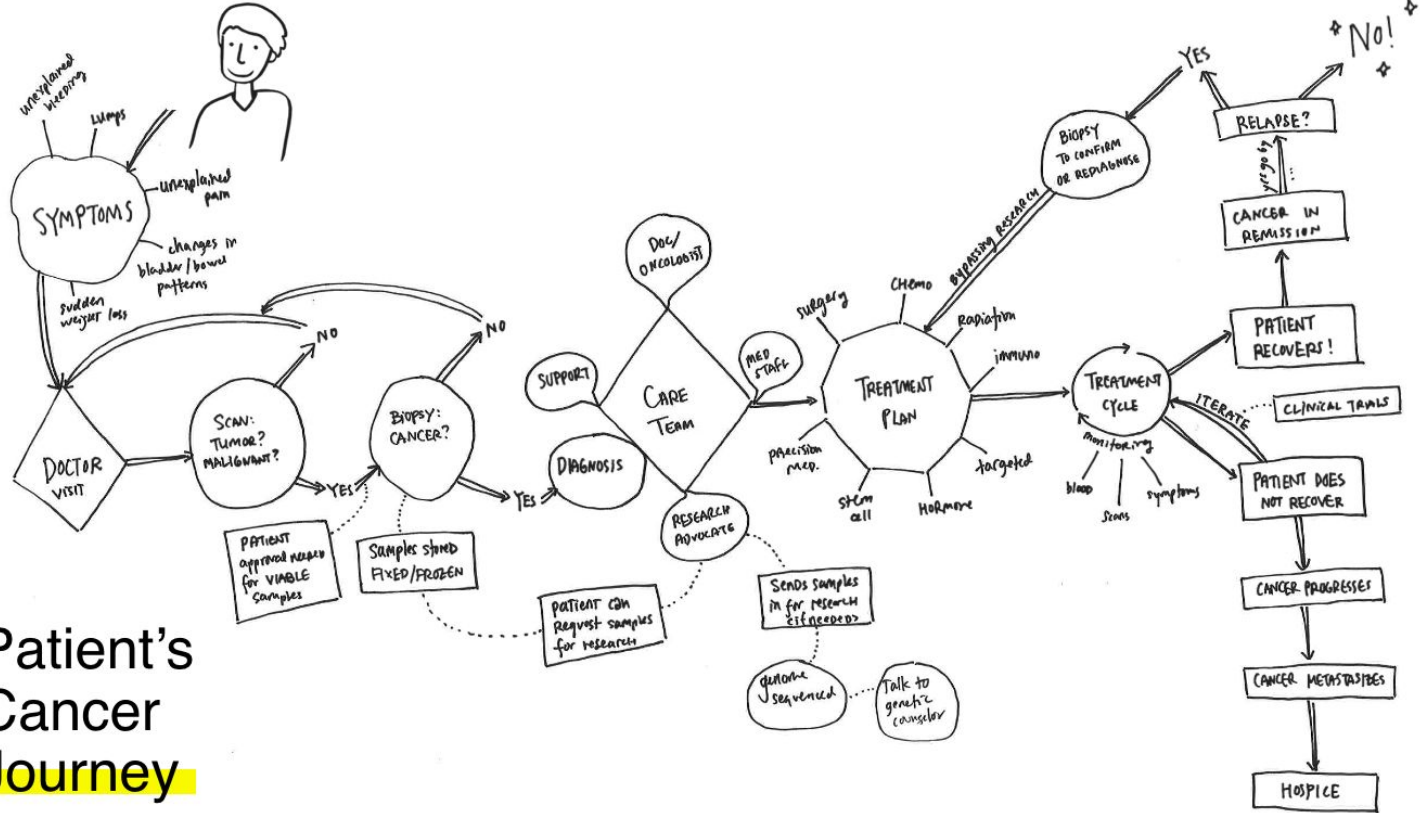
- Find the best way to express your insights
- Find the right framework for your story

Saliva Test Process: User Journey / Moments that Matter

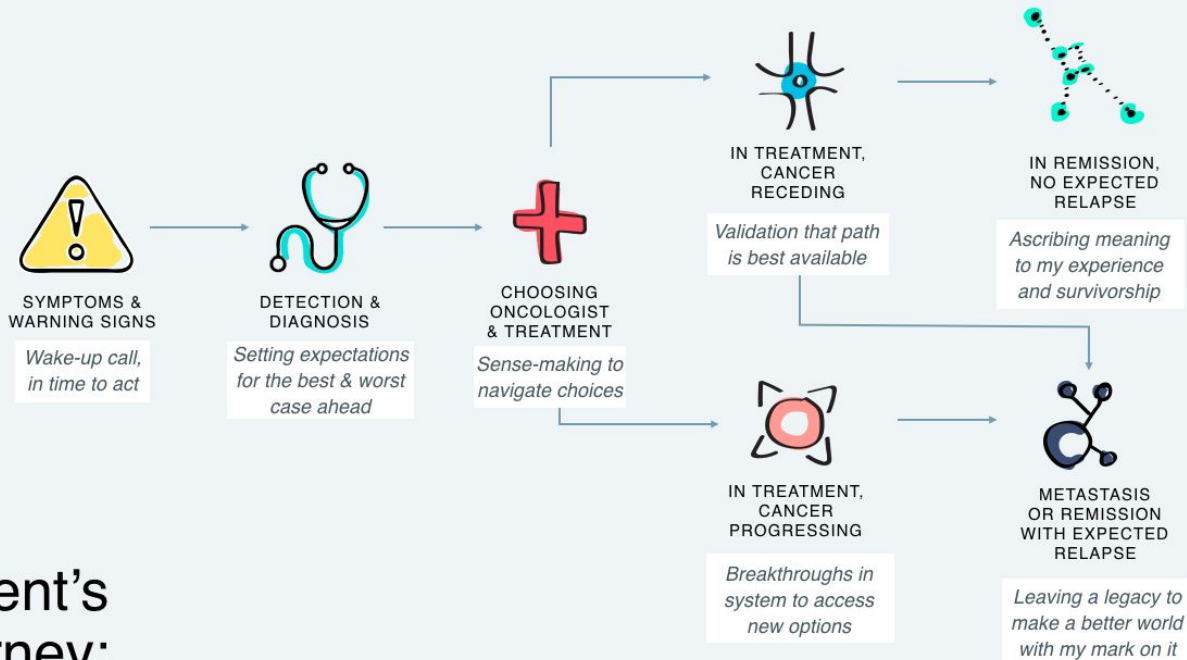


Saliva Test Process: User Journey / Opportunities for Design





Patient's Cancer Journey

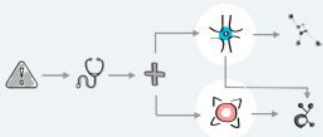


Patient's Journey: Simplified

05

Caretakers are a critical part of treatment, but often lose their support system.

Caretakers play an extraordinarily important role in cancer journeys, especially for the old and the young. Supporters are often those who keep records, translate information and seek out the best possible treatment for those that they love. That said, as a patient it can also be challenging to build support when you're down both physically and mentally.



SUPPORTIVE QUOTES

—

“I’m ready to finish my bucket list. I want to travel, but my husband just wants to rest.”

— Stacey

“It’s been 6-7 months and now all this [bottled up emotional experience] is coming out. He felt like it was all about me.”

— Stacey

“For my second surgery I told my mom she couldn’t come because she was so worried and anxious that it put more stress on me.”

— Beth

“My mom would use a chatbot. Clearly she needs someone to talk to.” — Beth

“I felt like I was going to pass out. I was crying non-stop. I didn’t want to cry in front of him.” — Natasha

Behavioral Segmentation

“Hold my hand through the process.”

Offer the opportunity to learn more about, and be coached through the retirement process using straightforward language. Allow them to pause the process and take time to consult others when questions arise.



PASSENGERS

“Let me see all the possibilities in front of me.”

Give them the opportunity to experiment with different retirement scenarios. Offer unbiased information to expand their understanding of retirement.



EXPLORERS

“Show me the process from beginning to end.”

Show what the whole process will look like so they can plan in advance. Visualize multiple income sources all in one place.



PATHFINDERS

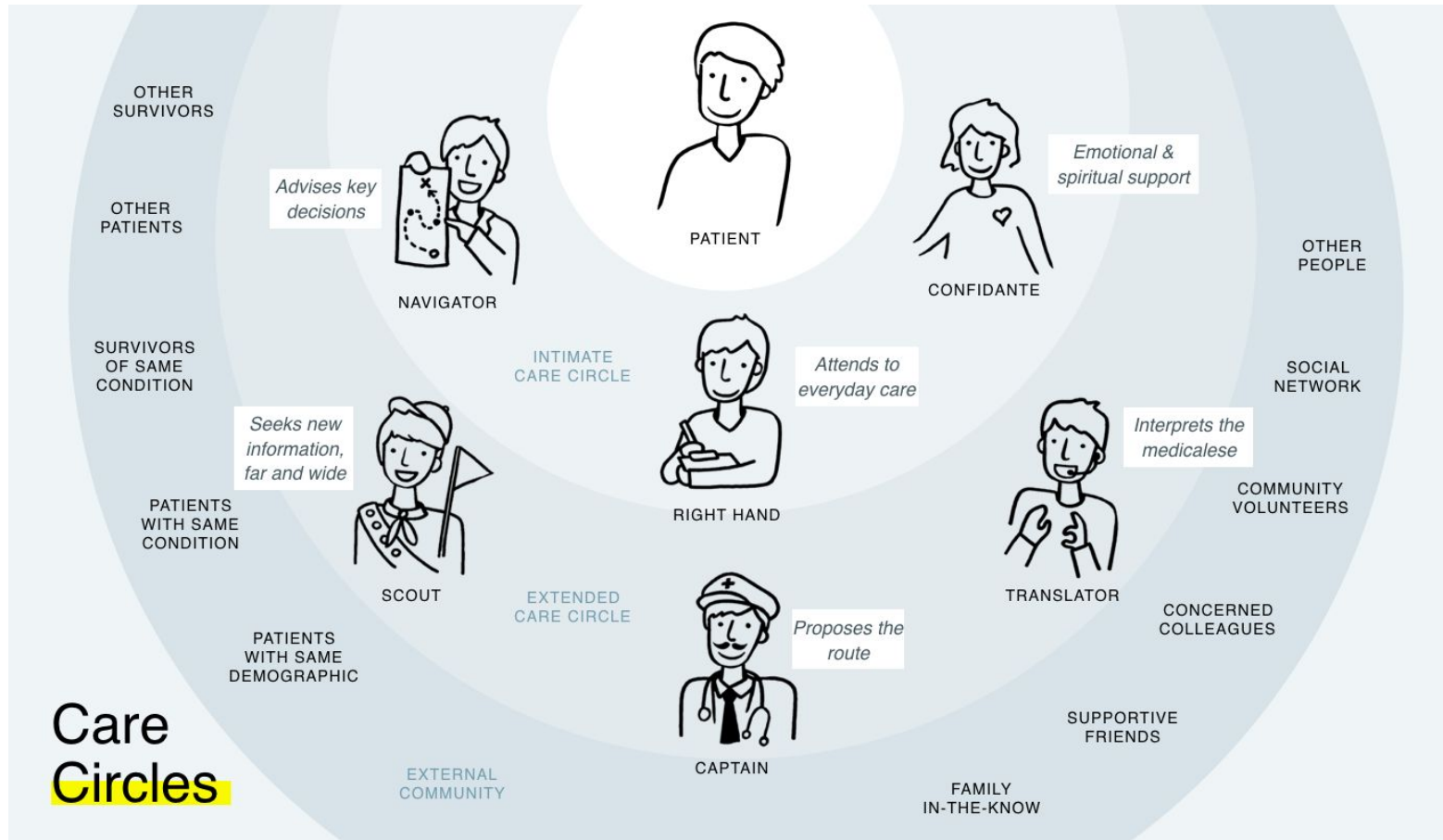
“Get me to the finish line as quickly as possible.”

Provide the convenience of completing the application without visiting an office. Offer instant feedback to let them know that the process has been successful.



BY-PASSERS

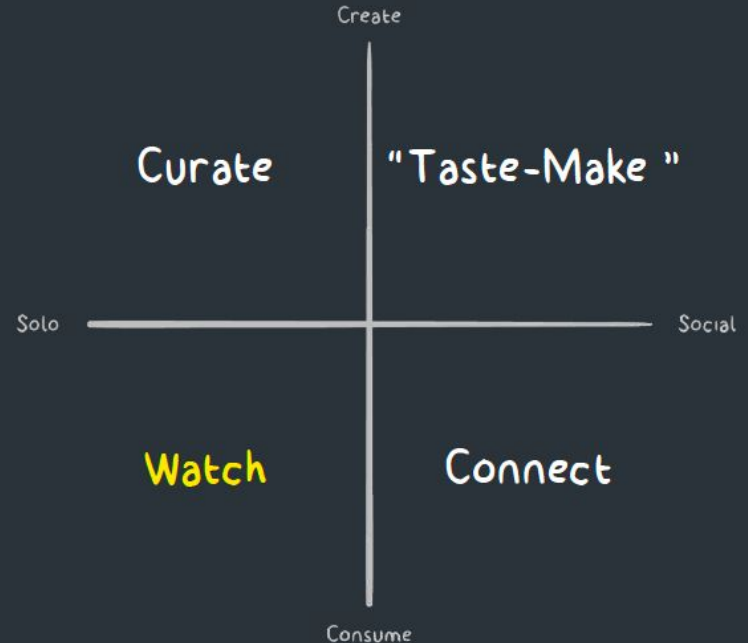
Maps



Two by Twos

02. Levels of Engagement

Not only how, when, and where we watch TV has changed (content + context), but also how we might potentially engage with it, socially and/or creatively.



4. Generate “How Might We...” Questions

Creating Design Opportunities

Framing for Multiple Solutions

A properly framed “How might we....?” doesn’t suggest one solution; but gives you the perfect frame for innovative thinking.

Inspired by Insights

HMW is inspired by at least one of the developed insights which are linked to more than one observation, interview idea or quote.

Creating Helpful Boundaries

HMW question is broad enough to lead to a wide range of solutions; but narrow enough to create helpful boundaries to think about specific solutions.

Example: Improving the airline experience

HMW create a seats with adjustable heights?

HMW create a sense of personalization in the seating experience?

HMW redesign seating on long flights?

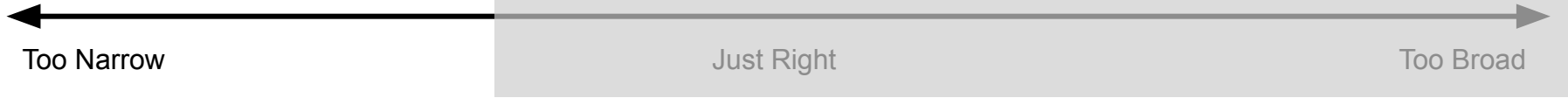


Why too narrow?

HMW create a seats with adjustable heights?

HMW create a sense of personalization in the seating experience?

HMW redesign seating on long flights?



Framing for Multiple Solutions

This HMW question suggests only one solution; it also suggests a very defined frame that limits thinking about the challenge.

Inspired by Insights

This HMW question is probably inspired by one interview idea under one insight, for example, one interviewee complaining about the height of current seats.

Creating Helpful Boundaries

This HMW likely leads to one solution; it creates very strict boundaries that can only help think about one specific solution.

Why too broad?



Framing for Multiple Solutions

This HMW question suggests infinite solutions; it does not suggest any defined frame to think about the challenge.

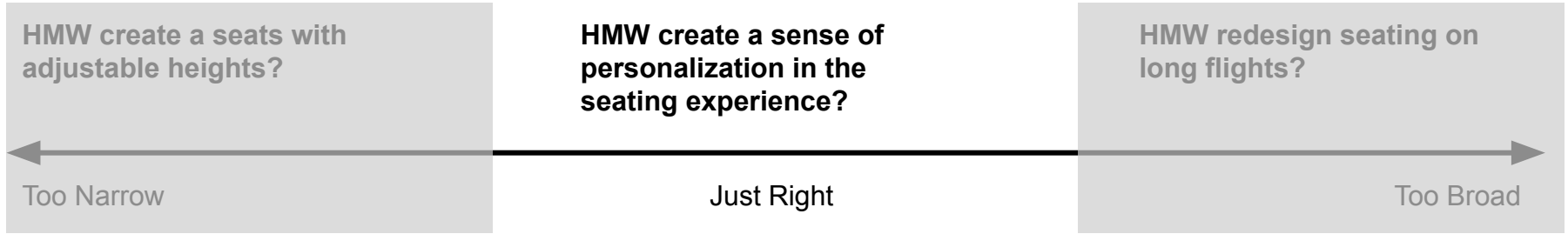
Inspired by Insights

This HMW question can be inspired by all insights!

Creating Helpful Boundaries

This HMW leads to infinite number of solutions; it does not create any boundaries that can help think about specific solution.

Why just right?



✓ Framing for Multiple Solutions

This HMW question suggests more than one solution; it also suggests a defined frame that permits innovative thinking under the area of the airline experience.

✓ Inspired by Insights

This HMW question is definitely inspired by one or more insights generated from multiple observations and interviews related to personalizing the seating experience.

✓ Creating Helpful Boundaries

This HMW leads to more than one solution; however, it creates boundaries that can only help think about specific solutions in the area of personalizing seating on airlines.

Let's walk through Deliverable 2

WORK 4 | INTERVIEW/WORKSHOP | INSIGHTS/ITEMS

DEBRIEF - COPY

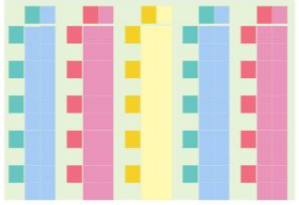
DU5 9/19
DEBRIEF

To facilitate the next steps in the process, you will need to prepare and organize your **DEBRIEF**:

1. Identify the key points
2. Organize the information
3. Summarize the key points

To do so, we want:

Summarize your observations from the site and your notes and organize your observations into the **DEBRIEF** per major findings and organizations. There will be an open workspace to organize your data.



ORGANIZE - COPY

DU5 9/23
ORGANIZE

To facilitate the next steps in the process, you will need to prepare and organize your **ORGANIZE**:

1. Identify the key points
2. Organize the information
3. Summarize the key points

To do so, we want:


Summarize your observations from the site and your notes and organize your observations into the **ORGANIZE** per major findings and organizations. There will be an open workspace to organize your data.

Are there any insights or suggestions from your research?

Remember, all insight is valuable. High-level insights are valuable, but you can also use **DEBRIEF** to identify an **action item** and **identify the next steps** in your research process. Use the **DEBRIEF** to identify the next steps in your research process.


DEBRIEF (1) Organize your observations into the **DEBRIEF** per major findings and organizations. There will be an open workspace to organize your data.

ORGANIZE (1) Organize your observations into the **ORGANIZE** per major findings and organizations. There will be an open workspace to organize your data.




DEBRIEF - ALT
ALTERNATIVE VERSIONS WITH MORE WORK SPACE

DEBRIEF



ORGANIZE - ALT



Things to do this week:

1. Each **group** should **contribute at least one suggested reading** to the **#week-4-discussion** channel, about the topic of **Synthesis in UX research**.
2. Complete **Deliverable 2** in your group's Miro board by **midnight on Sunday 2/21**.

What to expect next week:

1. You'll start **creating your frameworks in Miro** to communicate your synthesized insights, and **build a 10-minute deck** to present in class on **Monday 3/1** that summarizes your work thus far.
2. In class next week, we'll share guidelines and discuss our expectations and parameters for these first presentations, and meet with each group to talk about your synthesis progress.