



Ethnographic Design Research

Professor Jon Kolko

Our Design Process

Ethnography

Synthesis

Prototyping

Our Design Process

Ethnography

Immersion in the cultural context of a wicked problem

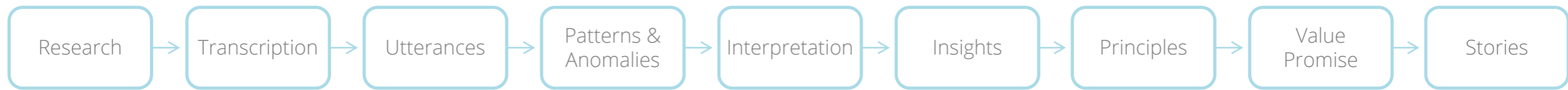
Synthesis

Making meaning through inference and reframing

Prototyping

Hypothesis validation through generative, form-giving activities

Zooming In...



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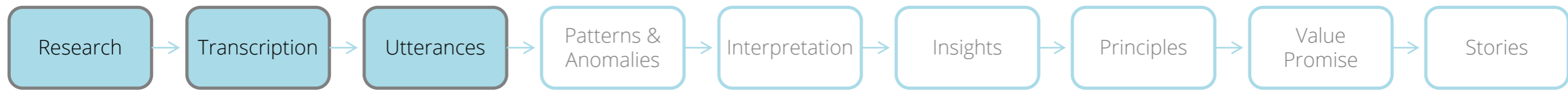
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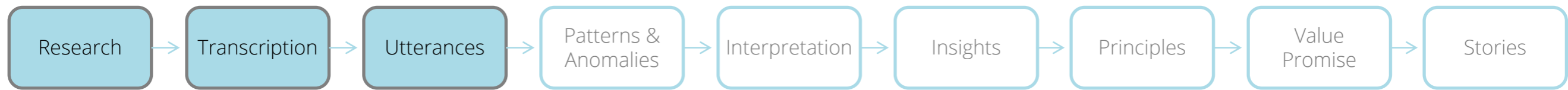
Hypothesis validation through generative, form-giving activities

Ethnography



A qualitative description of the human social condition, based on fieldwork and observation.

Ethnography



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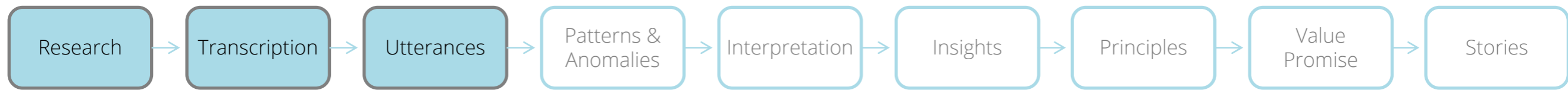
Watch people do things.

Ethnography



Our goal:
To build empathy and understanding.

Ethnography



Design research

Focuses on people.

Can be qualitative or quantitative.

Borrows from the social and behavioral sciences.

Attempts to understand culture. Looks at the styles, words, tools, and workarounds people use, in an effort to inspire design.

Celebrates the unique and peculiar. The rare or obscure in observations can lead to a new or interesting design idea.

Avoiding bias is nearly irrelevant. The goal is not to be objective, but instead to be rigorous.

Goal: Build Empathy

Market research

Focuses on people.

Can be qualitative or quantitative.

Borrows from the social and behavioral sciences.

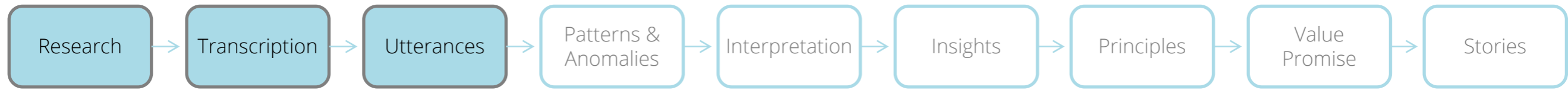
Attempts to predict behavior. Looks at what people say they would do, or what they actually do, in an effort to predict what they would do in a new situation.

Avoids the unique and peculiar. The goal is to understand mass responses; outliers are frequently ignored.

Avoiding bias is critical. The statistical analyses of data require an objective point of view.

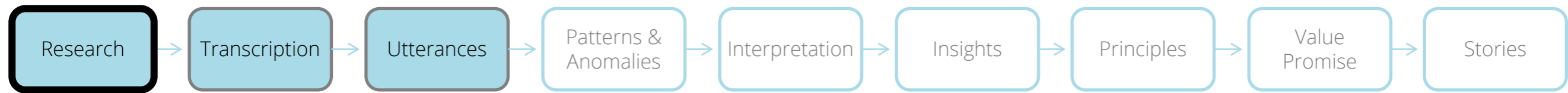
Goal: Build Understanding

Ethnography



The key to the whole thing:
Watch real behavior.

Ethnography: Our Method



Context

Go to the place where work is done.

Partnership

Build a master/apprentice relationship with the people you are serving.

Focus

Observe without an agenda – instead, select a focus.

Ethnography: Our Method



Context

“Being in context” means going to the place where the work is being done and watching it happen in real time.

Watching these things:

- Their physical work space
- Their work – tasks, sequences, intentions
- Their language
- Their tools
- Their organizational structures and culture

Ethnography: Our Method

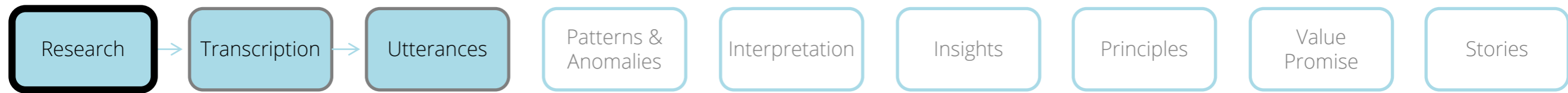


Partnership

A master/apprentice relationship: you are the apprentice. A humble mindset.

- Let the user lead the conversation
- Use open-ended questions, like “What are you doing?” or “Why are you doing that?”
- Ask to try things
- Downplay recording technology, like cameras

Ethnography: Our Method



Focus

An active perspective that guides a research trajectory, not agenda.

- Embrace the ambiguity of a non-objective goal
- Articulate your trajectory in a single sentence
- Ability and willingness to quickly pivot and respond to a situation

Planning Ethnography



1. Create a preliminary focus statement

- Determine what space you will focus on
- Start broad, thinking about large concepts (food, nutrition, banking, etc)
- Don't assume a problem
- Recognize that focus is a starting place, not an ending place

Your initial focus doesn't matter that much, because wicked problems are so tangled together.

Planning Ethnography



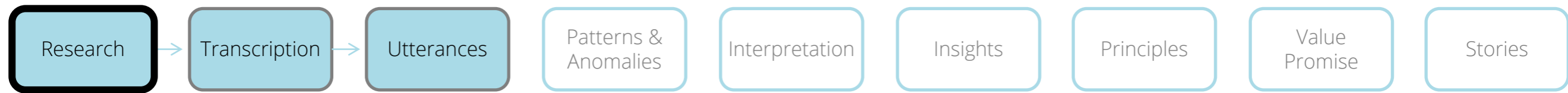
1. Create a preliminary focus statement

We are conducting research into nutritional habits, hoping to feel what it's like to try to lose weight.

We are conducting research into inner-city crime, hoping to feel what it's like to raise children in a neighborhood that may be thought of as "unsafe."

We are conducting research with college students, hoping to feel what it's like to experience debt in the context of the community college academic journey.

Planning Ethnography



2. Identify participants

Identify the people who are closest to the circumstances you are exploring. What experiences will help you gain empathy, quickly?

- Be as specific as possible – this is not a demographic/segmentation exercise. There is no person who is “25-35 years old.”
- The people you are targeting may not want to talk to you. Who would be a next-best proxy?

Planning Ethnography

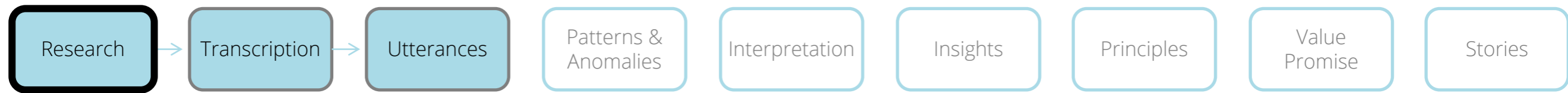


2. Identify participants

We are conducting research with college students, hoping to feel what it's like to experience debt in the context of the community college academic journey.

- 1. We hope to spend time with sophomores and juniors at local community colleges.*
- 2. We will work with both declared and undeclared students.*
- 3. We will work with students who have large amounts of college debt.*
- 4. We will work with students who have transferred from one program to another, and students who have experienced a 5+ gap in their education.*

Planning Ethnography



3. Identify context

Based on your focus and your participant description, identify where you will go in order to watch real behavior.

- Be as specific as possible.
- Consider that some contexts are dangerous, require permission, or are logistically too complicated to visit. What are next-best solutions?

Planning Ethnography



3. Identify context

We are conducting research with college students, hoping to feel what it's like to experience debt in the context of the community college academic journey.

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We will visit students who live on campus at UDC Community College, in their dorm rooms. We will also attend their classes with them.

Planning Ethnography

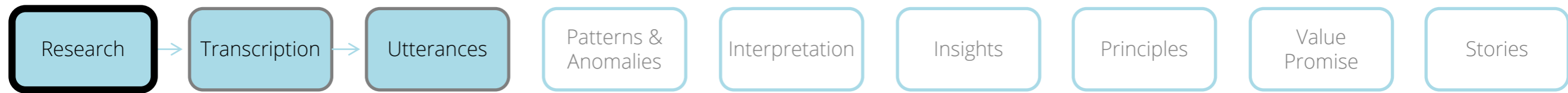


4. Draft a plan.

Create a plan for your research, and recognize up front that this plan will go sideways very quickly. It's intended as a framing guide, not requirements for execution.

- Write a verbose introduction that explains who you are, what you are doing, and what you hope to achieve.
- Spend a lot of time considering how you will move from “question-answer” to watching behavior.
- Craft open-ended questions related to your focus, context, and participants.
- Write a research plan that describes what you will do, who you will do it with, where it will be done, and why you will do it.

Planning Ethnography



5. Role-play the research experience.

In your groups, pretend that one of you is the research participant, while the rest of you are the research team. Walk through the entire research plan.

Conducting Ethnography



Getting Organized

You can never be overly prepared.

Organize your equipment:

- Video/audio recording
- Tapes/memory cards
- Batteries (and backup batteries)
- Pens/paper
- Digital camera

Print your script:

- Your introduction
- Questions you can use to initiate behavior
- Consent form

Conducting Ethnography



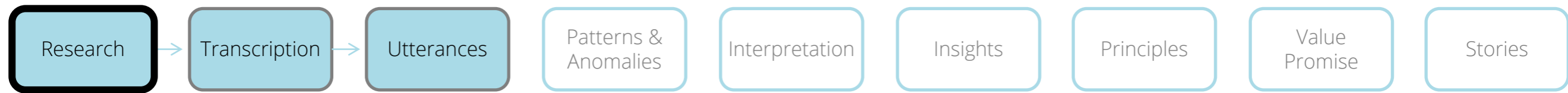
Informed Consent

Like a scientific study, we need to inform participants of the research protocol. This will protect both you and the participant, but more importantly, creates an ethical boundary around your research.

An informed consent form should:

- Explains any compensation that will occur
- Explains the scope of the study
- Explains how the results of the study will be used
- Explains exactly how the individuals name, image, company, and words will be used
- Explain that the participant can quit at any time

Conducting Ethnography



Roles & Responsibilities

Behavioral research works best with two people (a facilitator and a photographer). You can conduct research with three people (a facilitator, a photographer, and a note-taker), but more than three people is intimidating to the participant.

- The facilitator runs the session, and manages the recording device.
- The photographer captures any details related to people, artifacts, or the environment.
- The note-taker captures key verbatims.

Conducting Ethnography

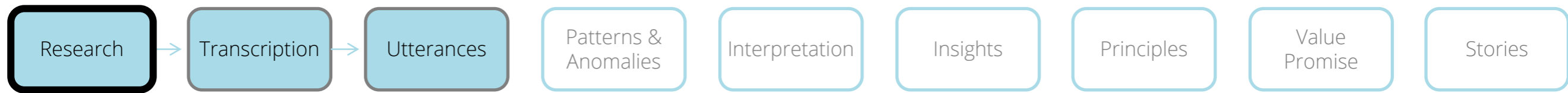


Roles & Responsibilities: Facilitator

As the facilitator, it is your responsibility to establish and maintain a master/apprentice relationship, where the participant trusts you and knows you are there to learn from them.

- Make initial eye contact, but purposefully defer to set the participant at ease
- Be conversational, but not chatty.
- Ask 1 question at a time.
- Be patient; count to 5.
- Ask open-ended questions.
- Ask “why,” even if you know the answer.
- Never correct or contradict the participant.

Conducting Ethnography



Roles & Responsibilities: Note-taker

Write verbatim quotes from the participant.

- You won't be able to capture everything, so focus on specific quotes that the participant says.
- Make sure you can read your own handwriting.

Conducting Ethnography



Roles & Responsibilities: Photographer

As the photographer, you are looking to capture the stories you hear and see in context. Visually document everything.

- Know your equipment.
- Makes sure everything is prepared ahead of time (batteries charged, settings, free space, etc).
- Shoot from the hip; **get out of their face.**
- Turn camera noises off.
- Take portraits, with permission.
- Over-shoot. Shoot literally everything.
- Back-up every day.

Conducting Ethnography



Tips for Engaging with People

When you approach someone, have a plan for what you will do and say. Consider the difference in these approaches:

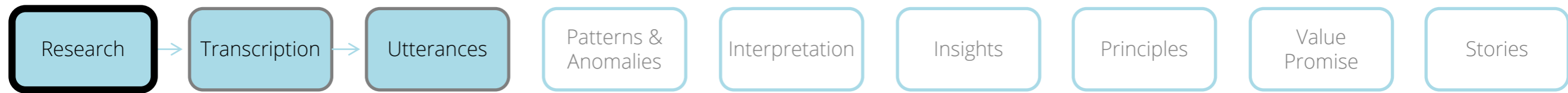
“Hi. I’m researching college debt. Can you spare some time to talk to me?”

“Hi, my name is Jon. I’m really interested in learning more about how people manage college debt. Got some time to talk to me?”

“Hi, I’m a student and I’m trying to learn as much as possible about college debt. I was hoping to learn a little about how you are paying for college.”

“Hey, can I talk to you about something?”

Remember...



It's not an Interview!

It's going to be really, really, really, really tempting to revert to a question/answer form of intervention. Try as hard as you can to watch real behavior:

- Ask to see an example
- Ask to see artifacts and tools
- Ask to try it yourself
- Ask to hear about the steps or flow of an activity ("Can you walk me through that step by step?")

Zooming In...



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High-Level Per-Person Themes

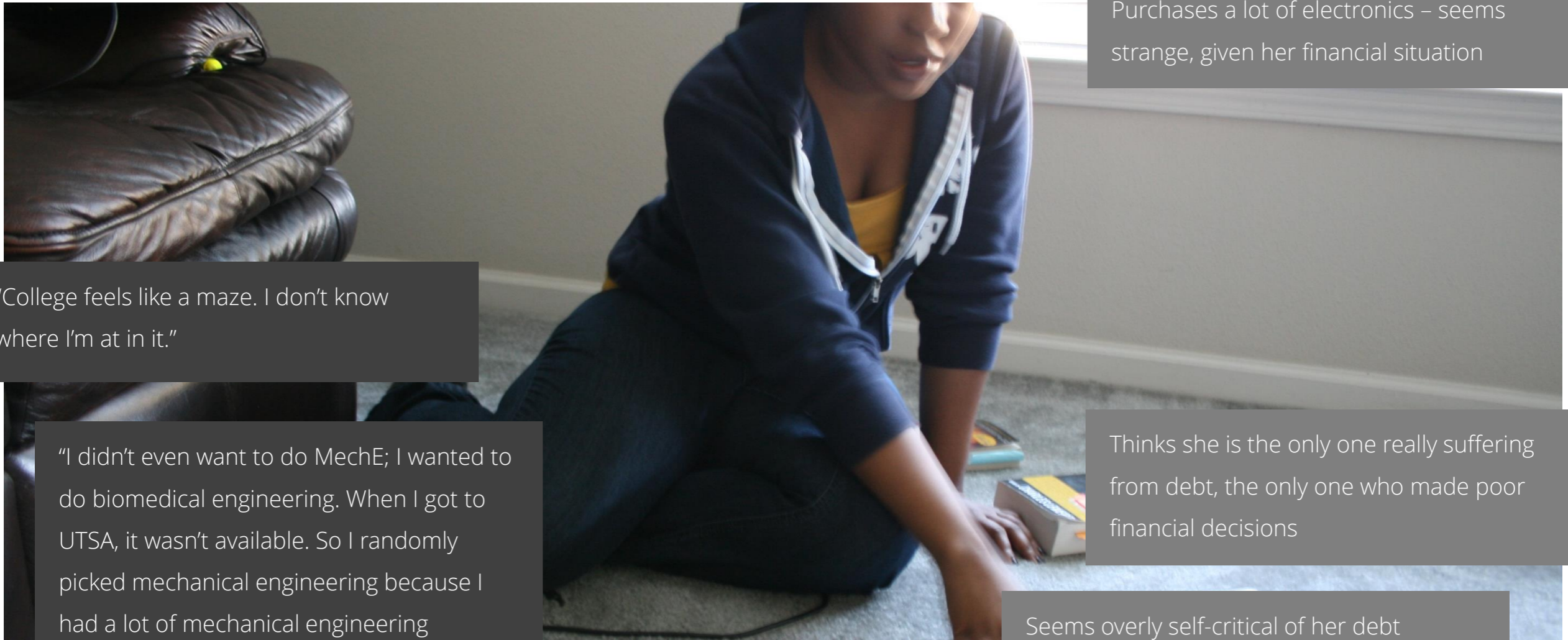


Representations of Your Participants

Once you get back from research, but before you've fully transcribed your data:

1. Identify the top 3-4 key takeaways from each participant, and write them down
2. Re-write the key quotes from your note-taker to make sure they are large and legible
3. Create a per-person theme wall to visualize these written items in the context of the participant

Marissa



Purchases a lot of electronics – seems strange, given her financial situation

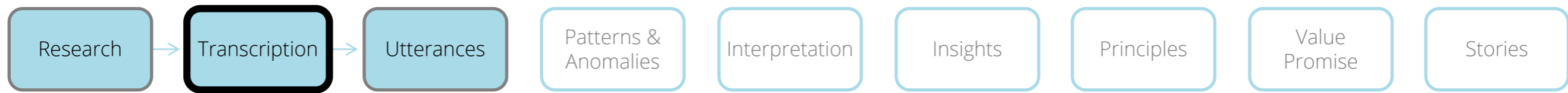
“College feels like a maze. I don’t know where I’m at in it.”

“I didn’t even want to do MechE; I wanted to do biomedical engineering. When I got to UTSA, it wasn’t available. So I randomly picked mechanical engineering because I had a lot of mechanical engineering friends.”

Thinks she is the only one really suffering from debt, the only one who made poor financial decisions

Seems overly self-critical of her debt

Full Transcription



A 1:1 Representation of Your Research

As soon as possible, transcribe the entire session.

- Expect a transcription to take four or five times as long as the session
- Don't outsource or intern this step!
- Your goal is empathy; hearing the person's voice over and over helps build an implicit relationship with them
- We'll use this data through the rest of the process, so don't skip this step!

Full Transcription



Now what's the name of your company again? Oh you're part of blackboard. You've had a plugin in the past? For Blackboard? A lot of companies have those plugins for their product within Blackboard.

Man I'm old so I've got a lot of good experiences. So you want me to start with my college teaching experience? Ok. Yeah I'm kinda an eclectic person so I'm from a little town in Oklahoma, came away from college- studied history in human relation, criminology, and so I worked at the sheriff's department here 6.5 years or so then I worked for the state of Texas for 20yrs 8 months. Retired from there.

There is an agency that licensed old police officers in the state and set training standards and hiring standards and I left there and came here and we started a program called public safety management. Which was to there is a lot of criminal justice programs all over the place that educate people about the criminal justice system. I kinda tend to wander but they started in the 60's and all that. They are about the criminal justice system the police, courts and prosecutors. So we started this program in public safety management to integrate the first responders police, fire and paramedics to do some management education around those topics. Its been a new emerging field – there are not that many programs like ours.

We're situation in new college – which is for non-traditional students. So they are adults, they are almost all over 24. The average age is in the early 30's probably. So they are working adults – time is very precious to them because they have families and kids and all that stuff. They are trying to go back and complete a degree because they started and left like everybody does. In 2003 I was hired and we started this program to fit into this – they had other programs for adults.

Through new college. I got into online learning – when I worked for the state – we had developed a number of training programs – the legislature is always saying somebody comes in and complains that police don't know about child abuse. So they mandate that every police officer in the state needs training in child abuse. And there's 60,000. So it's a lot of people. There are a lot of training establishments around the state. So we developed a correspondence and then an online deal where you read or see something and answer some questions kind of deal and that was to document that they knew about these different subjects. There wasn't any interactivity built into it at all. It's kinda like a MOOC to a certain extent.

So I came here and there were people dabbling in online education. A lot of the people when I came here didn't use blackboard because – I mean they used it just to post the syllabus or things. There were a few people that were doing online that kinda started some html pages and those kind of things. Because blackboard had a lot of issues back in the early days and they still have some issues. People in public safety have a lot of issues with scheduling. Some police have an assignment where they change the time of day that they are working every month. Firefighters have an even worse schedule because they work 25 hours and they are off 48 hrs. So there is no days of the week that are consistent over any span of time.

We started to developing courses in online format. At the same time, the other part of the program – is a lot of these courses are packed into 7 weeks even the regular ones that meet in class for this particular group because time is such a big issue. Especially for an undergraduate degree. Take 6hr /semester takes 10 years. SO we have them packed into 7 week blocks. I started developing online courses and we offer them every other time in the classroom. I wanted them to be parallel.

So I use blackboard for both sections. It's good to divide them up by week. I have 7 different folders – 7 units. Even when I was having an in class session – I would copy over to the next section and still have the 7 units. I would have a number of readings for each unit. There were very clearly parallel. I'm not a big fan of testing but I want people to read them materials and view the videos and different things so I developed some little quizzes in blackboard and used it- used the same quiz for online and in the classroom. Its worked out for me.

A lot of people are talking about flipping the classroom. When I first came here – there was this guy who was getting ready to retire. He had been doing this for a lot time cause when you have a limited amount of time in class if you show a video, even our classes are 3 hour session – you eat up an awful lot of class time that you don't have as much. We're only going to have 21 – even a regular seminar – only 21 class hours. Compared to the 45 or whatever it is for the more traditional setup it is for colleges. So what he had done- joe O'neil- at that time there was video tapes – they would be in the library and people would be required to go read them before class and then discuss them – flipping the classroom. That was- he had been doing it 30 years. Now that we have streaming videos – I can do them same thing. I think that's been pretty successful.

Exploded Transcription

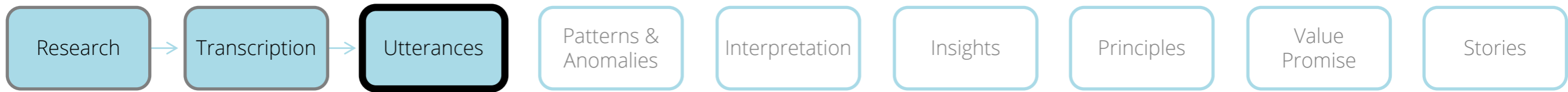


To a Malleable Format

Extract individual utterances from your transcript.

- We'll use the utterances to build diagrammatic representations of the data.
- Use "mail merge":
 - Put your written transcript in Excel
 - Add a column with an individual identifier per utterance
 - Mail merge to mailing labels

Full Transcription



p12 | Dave | 1

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p12 | Dave | 3

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p12 | Dave | 10

In terms of working with adult students. Teach a section with I just started this semester with teaching students that are 19 or 20. I'm not as sure that they are doing things before class that they are suppose to. There is more classroom hours involved in those classes because they are still 45 hrs. Testing is open book. I use blackboard even for the ones that meet in class. I give them a time period. You have 1hr-2hrs takes these tests - open book, whatever because I have very poor memory too and I don't believe in memorization. That's the way I use that. Send them a big test at the end - A weekly test of 10 questions- kinda a mix of essay and other formats. Kinda had to use blackboard - over time I'm working with some wikis especially for the online classes.



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