

Qualitative Design Research

Recap: What is design research?

Design research is about learning from people in the context of their lives.

Find Problems

Understand a Topic

Build Empathy

The value of research

Design research is different than market research.

Design Research	Market Research
Focuses on people	Focuses on people
Can be qualitative or quantitative	Can be qualitative or quantitative
Borrows from the social and behavioral sciences	Borrows from the social and behavioral sciences
Attempts to <i>understand culture</i> . Looks at the styles, words, tools and workarounds people use in an effort to inspire design.	Attempts to <i>predict behavior</i> . 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.
<i>Celebrates</i> the unique and peculiar. The rare or obscure in observations can lead to a new or interesting design idea.	<i>Avoids</i> the unique and peculiar. The goal is to understand mass responses; outliers are frequently ignored.
Avoiding bias is <i>irrelevant</i> . The goal is not to be objective but instead to be rigorous.	Avoiding bias is <i>critical</i> . The statistical analysis of data requires an objective point of view.

Introducing Contextual Inquiry

A Contextual Inquiry is a behavioral interview in the context of an experience.

Unlike a typical interview, a contextual inquiry occurs in the physical (or virtual) context of where an experience occurs. This form of inquiry focuses on actual behavior as compared to hypothetical behavior.

Go to the work

Rather than bringing the research participant into the studio or lab, go to them – observe their work or life in their workplace or home (in person) or digitally (via Zoom), so you are able to experience their natural environment.

Learn from the master

Establish a unique form of relationship with your participant: a master and apprentice interaction, where you act as the apprentice.

Observe real behavior

Unlike a typical interview of question and answer, provoke questions based on the actual behavior you observe in front of you, or have prompted by asking for artifacts and documents. Adapt the research based on observation.

Introducing Contextual Inquiry

Go to the work

We are in the student's dorm room

Learn from the master

The student is teaching us about his organizational system

Observe real behavior

The student is planning how he will study and get his homework done for the week



Introducing Contextual Inquiry

Go to the work

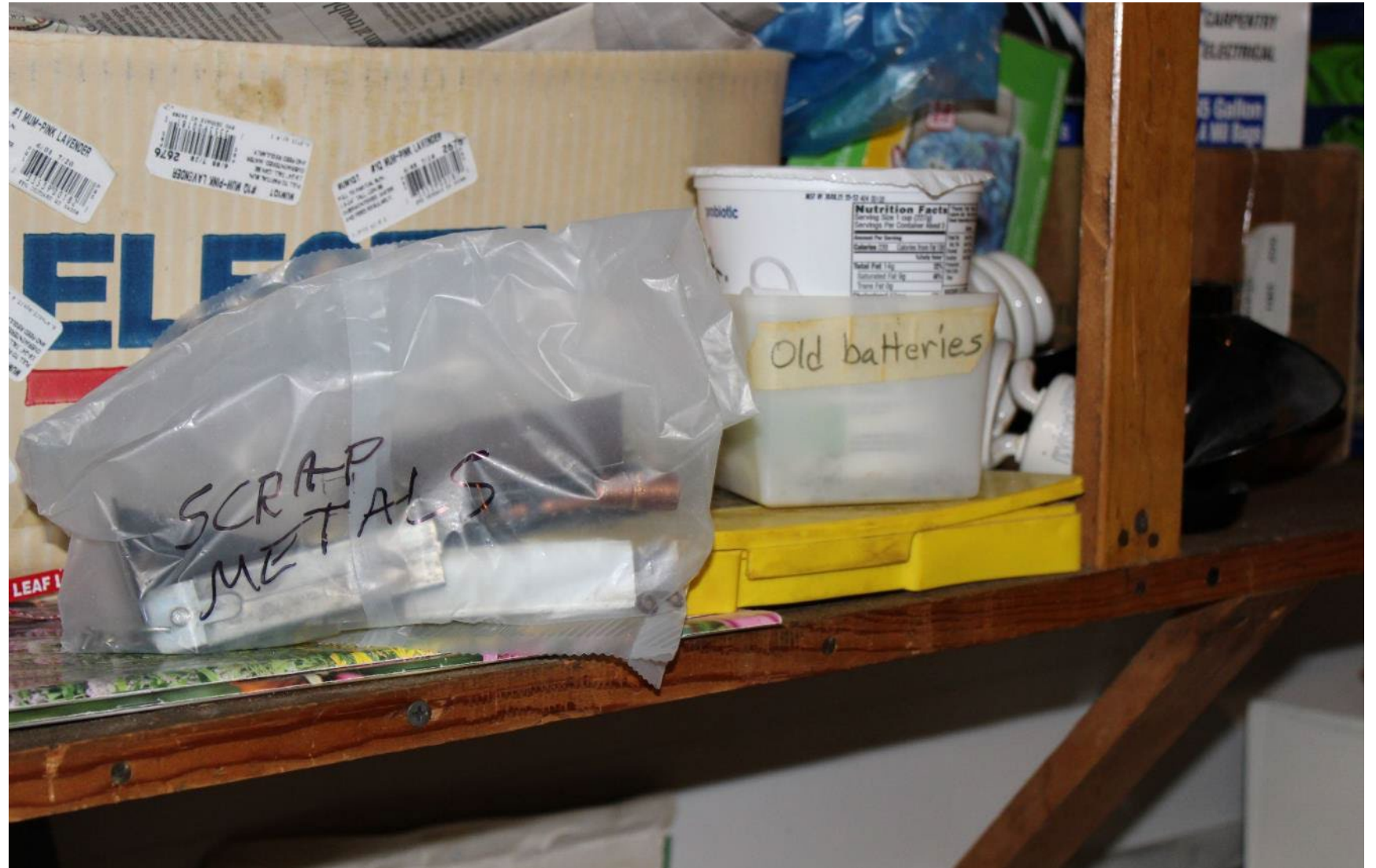
We are in a participant's garage

Learn from the master

The homeowner is teaching us about how recycling works

Observe real behavior

The participant stores items in bags because he doesn't know how to recycle them, but knows he shouldn't throw them away



Introducing Contextual Inquiry

Go to the work

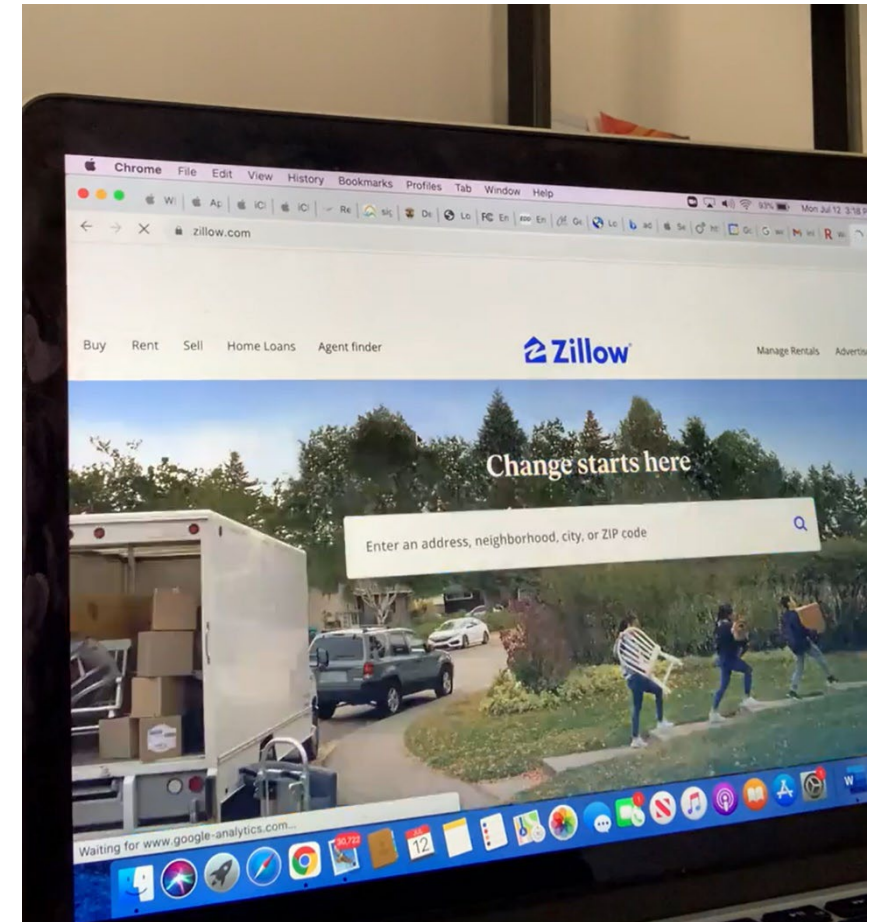
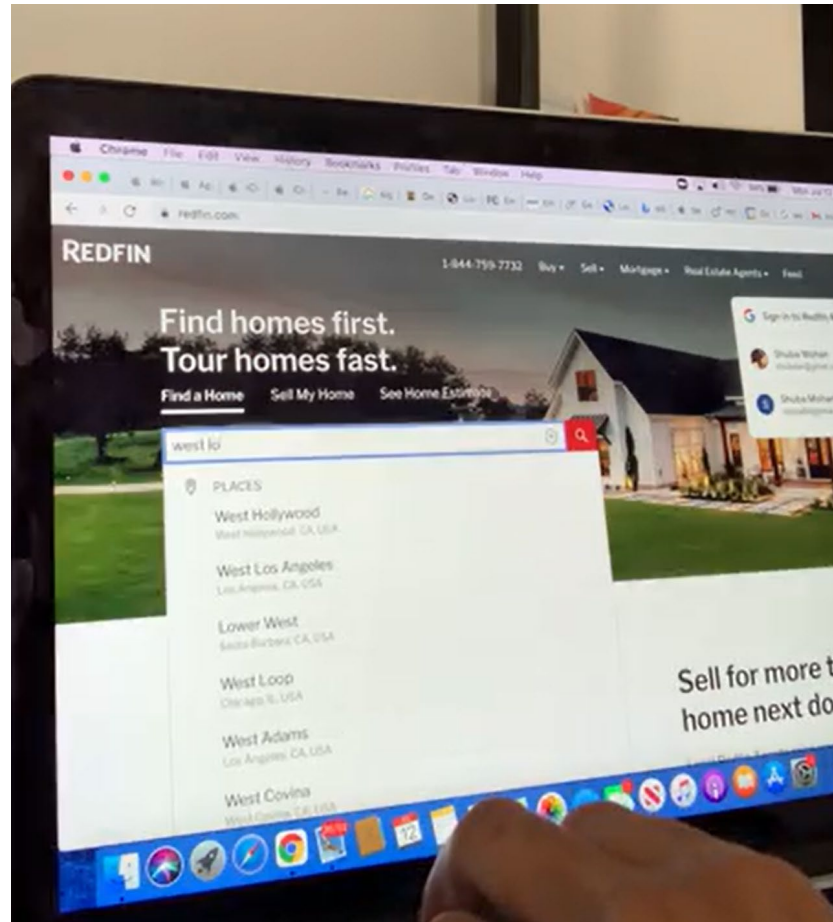
We are in the participant's house digitally, via Zoom

Learn from the master

The renter is showing us how she is hunting for a new home

Observe real behavior

The renter opens multiple sites that have the same inventory, thinking that she'll see different results



Introducing Contextual Inquiry

Go to the work

We are in the baggage sorting facility under an international airport

Learn from the master

The floor manager is giving us a tour of the facility

Observe real behavior

The baggage handler is napping between flight arrivals



When to use Contextual Inquiry

Contextual Inquiry helps you see opportunities for new products, services, and capabilities.

Contextual Inquiry can be used throughout the design process to fulfill a variety of goals; it acts as the “base method” for learning about people. It can be used to:

- Learn about a new topic or discipline
- Examine how an existing product is or isn't working
- Develop insights about how people work and live
- Help skeptical team members see the world through their users, customers, or colleagues eyes
- Identify room for new product and service innovations

How it works

Go to the work, establish rapport, and ask open-ended question about real behavior.

To conduct a contextual inquiry, focus on the following steps:

1. Establish a research focus
2. Identify the context of the experience
3. Locate and recruit participants
4. Arrive in context (physical or digital)
5. Establish a rapport of partnership
6. Observe behavior
7. Ask open-ended questions

Setting a research focus

A good research focus narrows participant selection, but leaves room for exploration.

- Determine what space you will focus on
- Start broad, thinking about large concepts (buying groceries, paying bills, saving for college)
- Don't assume a problem
- Don't assume the boundaries of the focus area fall neatly along business or organizational boundaries
- Recognize that focus is a starting place, not an ending place

Setting a research focus

A good research focus narrows participant selection, but leaves room for exploration.



Example of poor focus statements:

We are researching problems with the current app.

We are studying what people want us to build.

We are researching people's finances.



Example of better focus statements:

We are conducting research into people's relationship with money—specifically, how they feel about and manage debt.

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.

Identifying context

By observing experience in context, we can better watch real behavior.

“Being in context” means arriving at the place where the work is being done and watching it happen in real time or via asynchronous recording; pay attention to these things:

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

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?

Identifying context

Identify the place you will go in order to observe real behavior and talk to real people.

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.

We will visit students who live on campus at UDC Community College, in their dorm rooms. We will also ask them to facetime with us while they are in their class.

Selecting participants

Identify the people that you are going to spend time with and observe.

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

This is not a demographic / segmentation exercise.

The people you are targeting have distinct behavioral patterns that make their perspective unique. Be as specific as possible.

The people you are targeting may not want to talk to you. Who would be a next-best proxy?

Selecting participants

Identify the people that you are going to spend time with and observe.

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.

We will visit students who live on campus at UDC Community College, in their dorm rooms. We will also ask them to facetime with us while they are in their class.

- **We hope to spend time with sophomores and juniors at local community colleges (individuals who are in the middle of their academic journey).**
- **We will work with both declared and undeclared students.**
- **We will work with students who have large amounts of college debt.**

Building a plan

Draft a research plan with enough detail that someone else could conduct your research.

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. Writing it as a script can help craft the transitions.
- Write open-ended questions related to your focus, context, and participants.
- Write the full 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.

Try it out

Role play the research experience to see where things will go sideways.

Conduct the full research study, according to the plan, with your internal team.

- Was the timing and duration appropriate?
- Did the conversation flow effectively?
- Did you have an opportunity to transition from asking questions to observing behavior?

Update the plan, and try it again.

Logistics

You can never be overly prepared. What can go wrong, will go wrong.

Organize your equipment:

- Video/audio recording (+ Backup)
- Camera
- Memory cards (+ Backup)
- Batteries (+ Backup)
- Pens/paper

Print your script:

- Your introduction
- Questions you can use to initiate behavior
- Consent form
- Any materials that will be used during the study

Ensure you have digital conferencing or recording software ready:

- Prepare a primary tool (such as Zoom) and test it prior to your session
- Have a backup tool (such as Google Meet) ready and open
- Have a backup plan for internet connectivity, such as tethering from your phone
- Ensure you have the participants phone number, so you can call or text them if digital technology fails you

Informed consent

When working with participants, it's important to get 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

Informed consent

Keep the form as simple as possible.

A longer form full of legal jargon is very intimidating. Keep it short, and use plain language.

[DATE]

[RESEARCH STUDY NAME]

I voluntarily agree to participate in this research study. I further grant my permission for the interview/inquiry to be recorded and transcribed, and for my photograph to be taken; I grant permission for these recordings and photographs to be used, but any identifiable information in regard to my name and/or company name will be removed from any material that is made available to those not directly involved the study.

I understand that during this research study, I will be asked to do some or all of the following:

- Describe my experiences in life and work
- Show artifacts and elements of my workplace
- Participate in drawing and writing exercises

I understand that there are no physical risks associated with participating in this study. I understand that I can quit this study at any time.]

In exchange for my participation in this study, I understand that I will receive [COMPENSATION]. This will be the only compensation I will receive as part of the study.

Research Participant Name

Date

Granting permission to record and use information

Tasks that will be performed

Risks, and the ability to quit at any time

Compensation that will be offered

Roles and responsibilities

Assign roles and responsibilities before the research begins.

You'll conduct research in a team of two. Don't send three people into the field: it's intimidating for the participant!

One of your team members will facilitate the session.

The other team member will take pictures.

Roles and responsibilities

The facilitator acts to establish and maintain rapport with the participant. The participant needs to trust you, quickly.

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 eye contact, but purposefully defer or adjust your gaze regularly to set the participant at ease (don't stare)
- Be conversational, but not chatty.
- Ask 1 question at a time.
- Be patient; count to 3.

Roles and responsibilities

The facilitator asks questions; asking good questions is an art and science.

Good questions to ask

Why are these well-structured questions?

Can you tell me about it?

The participant is left to interpret the topic in their own way, showing how they think about a particular subject

Why?

The participant has introspection, offering a deeper consideration of the topic

Can you tell me more?

The participant builds on what they've already said, adding more detail and refinement

Can you show me?

The participant leverages artifacts or processes, describing real behavior instead of hypothetical behavior

Can you tell me an example?

The participant grounds their comments in reality, rather than conjecture

Can I try?

The participant shifts to the role of teacher

Roles and responsibilities

The facilitator asks questions; asking good questions is an art and science.



Bad questions to ask

Why are these poorly-structured questions?

Do you always do it like that?

The participant will rely on memory, which is often wrong or over simplified

Do you like it?

The participant is offering conjecture, which may not actually reflect their true feelings and opinions

You like it, don't you?

The facilitator is leading the participant in a particular direction, and the participant may feel compelled to agree with the facilitator

Can you estimate how often you...

Participants are very bad at estimating durations, quantities, and other quantities

If this existed, would you buy it?

Hypothetical purchasing behavior rarely matches actual behavior; and, contextual research is not the place to conduct market research!

Roles and responsibilities

A “master/apprentice” relationship positions the participant as a teacher.

A master/apprentice relationship: you are the apprentice, and you have a humble mindset.

- Let the user lead the conversation
- Assume you don't know
- Downplay your teams presence in person (reference your teammates as infrequently as possible)
- Downplay your teams presence digitally (2 people in Zoom max, 1 with camera off)
- Downplay recording technology, like cameras

Roles and responsibilities

The photographer visually captures the stories you hear and see in the field.

- 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. Don’t use a giant SLR camera and a large lens; smartphone cameras are just fine.
- Turn camera noises off.
- Take several face images, with permission.
- Over-shoot. Shoot everything you can.
- Shoot as many context images as you can.
- Shoot landscape.
- Back-up every day.

Debriefing and initial analysis

Immediately after the inquiry is over, regroup to discuss what you heard and saw.

- When the session is still fresh in your mind, discuss as a group, and capture in writing:
- The three most important themes
- The three most surprising facts or comments
- The most important story or anecdote

Applicability

Why are we doing this?

Design research helps us establish empathy with people. This empathy can then be leveraged during design to create new products and services that have appeal – that people find useable, useful, and desirable.

Design research also builds understanding, so that we can make more informed design decisions.

Applicability

Contextual research acts as a foundation for tackling a complex design problem.

Find Problems

As you work in context, you'll identify workflow problems, issues with system designs, interaction and usability problems, and other "low hanging fruit" that can be addressed through new product and service development.

Understand a Topic

You'll gain expertise acting as an apprentice to a master, and that means you'll gain a deep understanding of the nuances of a given job or experience.

Build Empathy

As you spend time with a master and observe them, you'll start to see the world through their eyes. You'll be able to imagine how new design changes will feel, and act as an advocate for the people you are trying to help.

Thank you!

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