

CSE 440:  
Introduction to HCI

# 04 – Design Research

April 4, 2024

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# Amazing Color Changing Card Trick

Quirkology Channel

## THE COLOUR CHANGING CARD TRICK

[www.RichardWiseman.com](http://www.RichardWiseman.com)

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# Why did I show you that?

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If we are focusing on the wrong thing,  
we can completely miss other important things

Assumptions, pre-conceptions, and background  
play a huge role in how we focus our attention

Today is about this danger when understanding  
the context for which you design technology

You will always have a focus,  
so be aware and explicit in managing that focus

# “You Are Not the Customer”

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Seems obvious, but...

You have different experiences

You have different terminology

You have different ways of looking at the world

Easy to think of self as typical

Easy to make mistaken assumptions

# Overview

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## Project Status

## Design Research and Contextual Inquiry

Ethnographic Principles

Contextual Inquiry Principles and Practice

Additional Design Research Methods

## Time with Project Groups

# Course Reminders

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1b\_rev (Revised Group Proposals) Due Tonight @ 8pm

Section Tomorrow: 1b\_rev Crit

Goal: Get all the feedback you need to pick the right idea

1c (Finalized Proposal) Due Monday @ 3pm

Looking Ahead:

Tuesday: Project Ideation Activity (2a, in class)

Thursday: Design Research Plan

# Additions to 1c

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Newly added content to include in your writeup:

Describe your connection to your chosen audience. What prior experience does your group have in interacting with members of this audience?

If your group does *not* have experience interacting with members of this audience: how do you plan to ensure that you interact appropriately and respectfully with your design research participants?

# Objectives

Be able to:

Describe master/apprentice relationship in contextual inquiry, contrast it to other relationships with a participant.

Enumerate and describe principles of contextual inquiry.

Describe stages of a contextual inquiry, including withdrawal and return.

Give examples of other design research methods, be able to consider how they might be applied to different design research needs.

# Ethnography

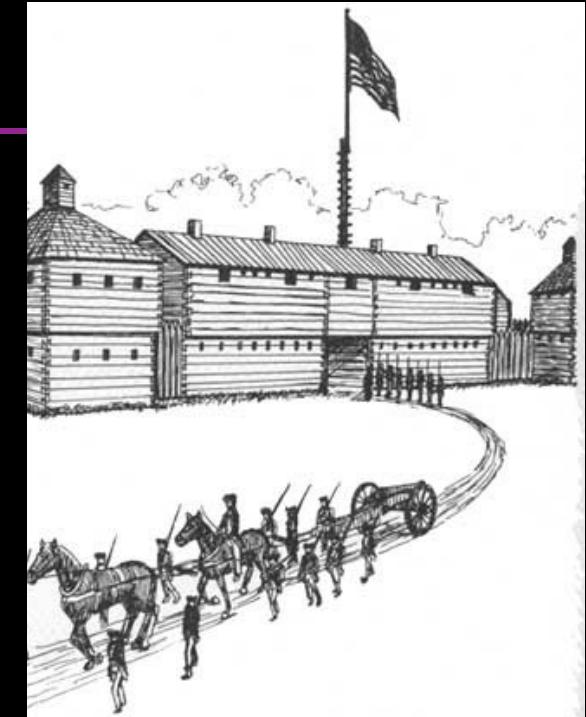
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Emerged in 1920s as a new method in anthropology, exploring why groups think and act as they do

In contrast to prior colonial perspectives

Learn local language, record myths, customs, and ceremonies in much greater detail

You will likely never perform an ethnography  
Sometimes “ethnographically inspired methods”



# Ethnography

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Traditional science attempts to understand  
a group or individual objectively

Understand the subject of study from the outside  
in a way that can be explained to “anyone”

Ethnography attempts to understand  
a group or individual phenomenologically

Understand the subject of study  
as the subject of study understands itself

# Contextual Inquiry

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## Applied design ethnography

“The core premise of Contextual Inquiry is very simple: go where the customer works, observe the customer as [they work], and talk to the customer about the work. Do that, and you can’t help but gain a better understanding of your customer.”



Hugh Beyer and  
Karen Holtzblatt

Contextual Design

# Many Design Research Methods

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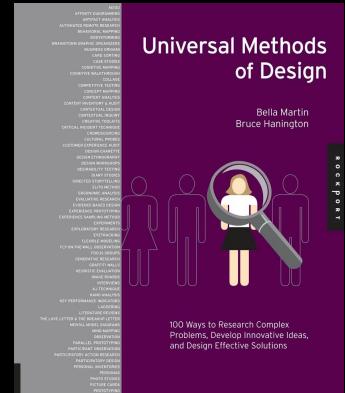
Many other design research methods are available, with different strengths

Often apply multiple methods for complementary perspectives

Fundamental goal is to gain design insight

Will focus on contextual inquiry because:

It is an effective and commonly-used method  
Its principles extend to many other methods



# User, Subject, or Participant?

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“User” is a loaded term, but sometimes we need it

In traditional science, “subjects” are “subjected to” experiments as researcher develops understanding

In ethnographically-oriented design methods, “participants” instead “participate” in helping the researcher develop understanding

This is not simple correctness, nor only about respect, it is a mindset that matters for being open

# What is your relationship?

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In a scientist/subject relationship:

The scientist does stuff

The subject responds in some way

The scientist collects data, goes  
back to their office, and analyzes  
the data to gain understanding

This is not very appropriate for  
gaining phenomenological understanding

# What is your relationship?

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In an interviewer relationship:

The interviewer asks a question,  
the interviewee responds

At a pause, the interviewer asks  
the next question from their list

Complete when all the questions are answered

This would support gaining phenomenological understanding  
IF you knew what questions to ask

Implying you have at least SOME phenomenological understanding

# What is your relationship?

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In a master/apprentice relationship:

The master is doing stuff

The master explains what they are doing

The apprentice asks clarification questions

The master answers

This relationship is at the heart of contextual inquiry

# Master/Apprentice Relationship

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Seeing the work reveals structure

Difficult to describe when not doing the task

“A doctor said he read journals outside his specialty because they often had information of interest to him. How did he decide what was of interest? “Oh, I just scan the article titles.” That wasn’t very specific. But when asked to do it, he was able to say, “Look, this article is about another use of a drug I prescribe. I’ll read that. And here’s an article about a procedure that uses a device I use a lot. There might be good stuff there...””

Contextual Design

# Master/Apprentice Relationship

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Every current activity recalls past instances

“A financial manager received a stock alert on his phone while we were talking. This reminded him about the time recently when he had gotten an alert of a PayPal transaction while he was watching a ballgame. But he knew he hadn’t made any transactions—so he called, discovered it was fraudulent, and was able to resolve it immediately.”

Contextual Design

# Not Quite Master/Apprentice

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If you do not understand, you ask

Huge contrast to assuming you are correct and understand

But the goal is not to learn to do the task

Instead, the goal is to learn how the participant does the task in order to learn how to support it

And for the researcher to enlist the participant's active assistance in understanding the task

# Not Quite Master/Apprentice

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In a contextual inquiry relationship:

The participant is doing stuff

The participant explains what they are doing

The researcher offers an interpretation

The participant agrees or corrects

## Partners

Not really an interview

Not really an apprentice

# Principles of Contextual Inquiry

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## Context

Must be done in the setting of the participant.

## Partnership

Master/apprentice model; investigator is humble.

## Interpretation

Observed facts must be regarded for their design implications.

Raw facts without interpretation are not very useful.

## Focus

Themes that emerge during the inquiry.

You cannot pay attention to all facets of all things at all times.

# Context

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Go and see the work as it unfolds

People summarize, but you need want details

Keep it concrete when people start to abstract

“Do you have one? May I see it?”



# Context

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Imagine studying how a student writes a paper, why not just ask?

# Context

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Imagine studying how a student writes a paper, why not just ask?

May not remember details

Getting roommate to read drafts

May skip critical difficulties

Trouble locating references on the Web

May recount *intent* rather than *what actually happened*

“I started writing it Thursday Night” → Are we talking 7pm or 2am?

# Context

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Avoid summary data by watching work unfold

Have participants talk aloud about their work and thoughts

“I’m looking for something my husband and kids will both be happy with. Look, my husband would love this—a golf tour of Scotland. But what would we do with the kids? Here’s a cruise—maybe that would work. Lots of kid activities, and my husband has always wanted to do a cruise...Getting it right really matters to me. I want everyone to have a great time!”

Seeing what a person does is much easier than why they do it

# Context

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If cannot observe, ground in an instance

Span time by replaying past events in detail

Look for holes

Ask questions to fill them

Use artifacts for context

If story has not yet ended, go back to a story that did

A car owner (U) talks to the interviewer (I) about how he handled a road trip to another city:

**U:** *I got in the car in the morning, and used the GPS to get me to my first appointment.*

**I:** *You entered in the address?*

**U:** *That's right.*

**I:** *Where did you get the address? Did you have it on your phone?*

**U:** *Yes, but I actually entered the address the night before.*

**I:** *The night before?*

**U:** *Right. Before I go on a trip, I enter all the places I'll go as destinations.*

**I:** *You mean you saved them as favorites?*

**U:** *No, I just entered them like I was going to go there, then I canceled. That's what I did the night before. Then, the day I left, they were all right there, easy to pick. [He shows the recent destinations list].*

**I:** *So you never have to delete them.*

**U:** *Right—they just disappear off the bottom of the list. I may never go to these places again, so If I entered them as favorites I'd have to delete them later.*

**I:** *Okay. So the night before, where did you get the address from?*

**U:** *My first address was a client we do business with all the time, so I got it from the contacts on my phone.*

**I:** *Can I see?*

# Partnership

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Traditionally, interviewer has too much power

You do not know what will turn out to be important

Apprenticeship model tilts power back too far

You are not there to learn the skill

Interviewer should create a partnership

Alternate between watching and probing

## Avoiding Other Relationship Models

Interviewer / Interviewee: You are not there to answer a list of questions

Expert / Novice: You are not there to answer questions

Guest / Host: Move closer, ask questions, be nosy

# Partnership

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Do not squash design ideas if they arise

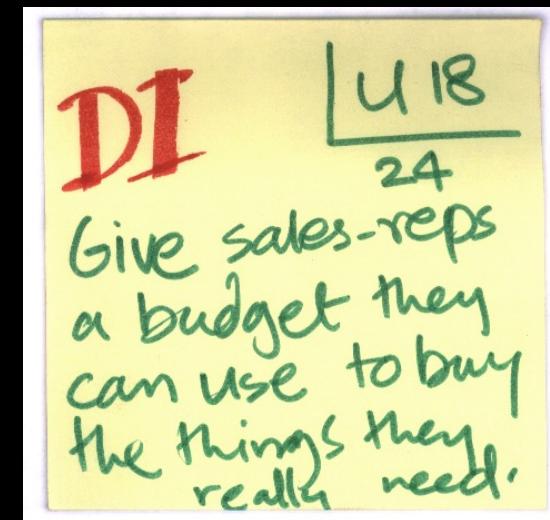
This is design, not dispassionate science

Get instant feedback

If it works, you understand the work practice and have a solution

If it fails, you can improve your understanding of the work

Find the issues behind design ideas



# Withdrawal and Return

## Key in partnership

Researcher observes action that indicates something meaningful

The researcher asks about this, and the pair withdraw from the task

Discuss the question

Then return to the task

John Kellerman  
Attorney at Law

In one interview with a user of page layout software, the user was positioning text on the page, entering the text and moving it around. Then he created a box around a line of text, moved it down until the top of the box butted the bottom of the line of text, and moved another line of text up until it butted the bottom of the box. Then he deleted the box.

**Interviewer:** Could I see that again?

**Customer:** What?

**I:** What you just did with the box.

**C:** Oh, I'm just using it to position this text here. The box doesn't matter.

**I:** But why are you using a box?

**C:** See, I want the white space to be exactly the same height as a line of text. So I draw the box to get the height. (He repeats the actions to illustrate, going more slowly.) Then I drag it down, and it shows where the next line of text should go.

**I:** Why do you want to get the spacing exact?

**C:** It's to make the appearance of the page more even. You want all the lines to have some regular relationship to the other things on the page.

# Interpretation

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## Chain of Reasoning

Fact, Hypothesis,  
Implication for Design, Design Idea

Design is built upon interpretation of facts

Design ideas are end products of a chain of reasoning  
So interpretation needs to be correct

Share interpretations with participants to validate

Will not bias the data

Teaches participant to see structure in the work

# Interpretation

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Sharing interpretation allows participant to correct or refine

““It’s like a traveling office,” we said, looking at how a Salesman has set up his car. “Well—like a traveling desk,” he responded.”

““So you’re acting like a master coder,” we said to a development project manager. “Yeah,” he said. “Except I wasn’t looking at code. More like master QA.””

Participants fine-tune interpretations

Probe contradictions until assumptions fit

# Interpretation

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Non-verbal cues can confirm or negate

Yes and Nos

“Huh?” – way off

“Umm, could be” – probably no, just being polite

“Yes, but...” or “Yes, and” – depends what follows

Commit to hearing what people actually say

Most have not ever had people actually  
pay careful attention to what they are doing

# Focus

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Everybody has a focus, you cannot prevent it

Entering focus

Project focus

Because you will have a focus, be mindful  
of that focus and use it to your advantage

Focus reveals detail

Focus conceals the unexpected

Brainstorm and define your focus, then expand

# Focus

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Opportunities to expand focus:

Surprises, contradictions, idiosyncrasies

Nothing any person does is for no reason

Nods

Question assumptions even if they match

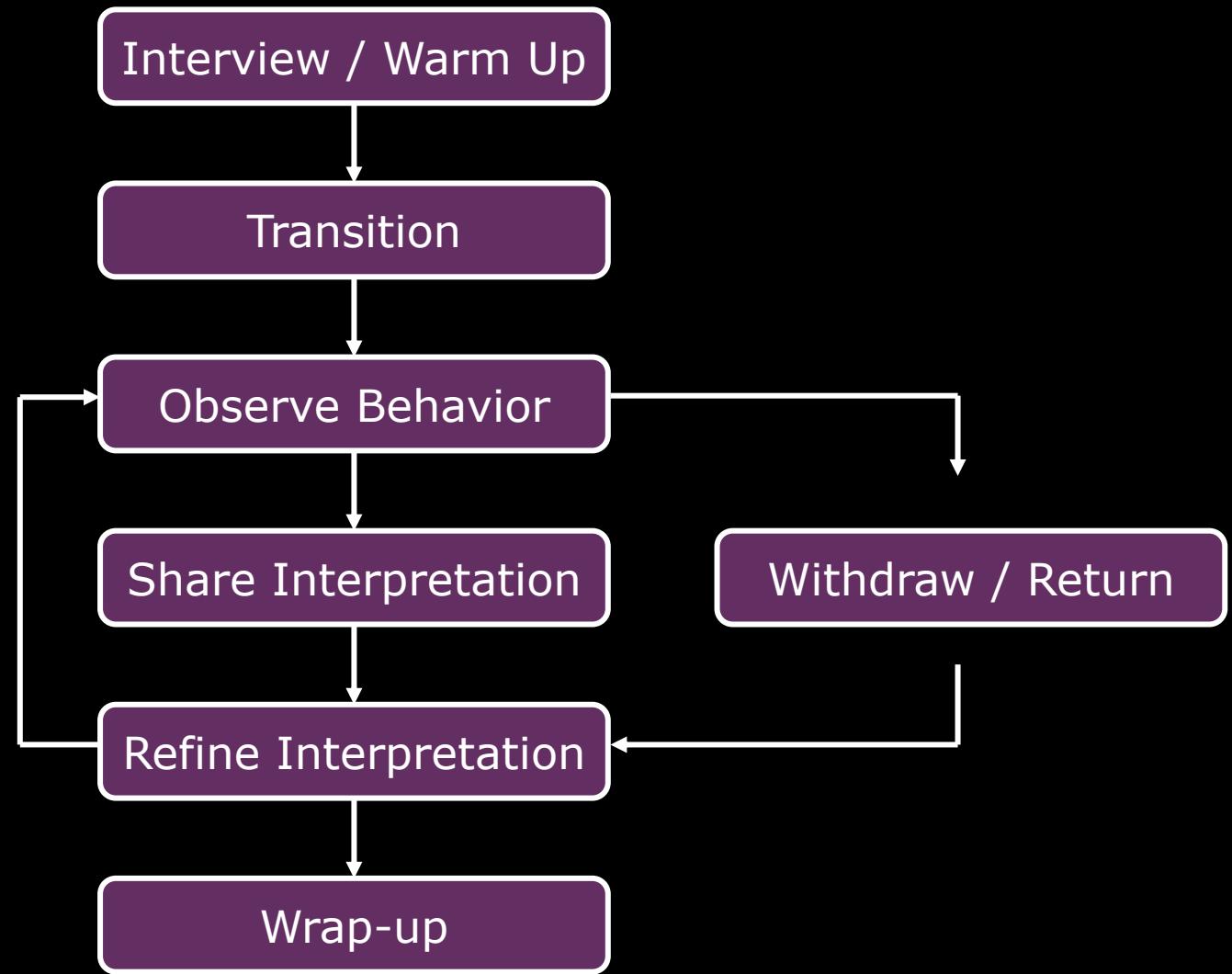
“Do they really do that? Why would they do that?”

What you do not know

Treat interview as an opportunity to learn new stuff

Even if the participant is not knowledgeable, extent  
of their knowledge / misinformation can be useful

# The Stages of a Contextual Inquiry



# Explain the Rules

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Be sure you explain “the rules” of how you’ll be interacting during the contextual inquiry

If this is not completely clear, the encounter may devolve into a traditional interview (a relationship that is more familiar to people)

# How to Mess it Up

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## Slipping into abstraction

Keep it concrete, in the work, in the details

## Not being inquisitive or nosy enough

If you have the impulse to ask, do it right away

## Being too pushy with interpretation

If you ignore corrections, participant will shut down

# How to Mess it Up

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With the wrong person

They need to be willing to partner with you

Turning it into a regular interview

If you could have done it in a coffee shop,  
then you did not do a contextual inquiry

Multiple people present

Can be good if they talk, surface their thoughts

Bad if they do not talk, are not forthright

# How to Mess it Up

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## Overly disrupting the task

If you change the task, your data is less useful

Withdrawal and return, maybe on a schedule

Retrospective methods might be necessary

(e.g., going through artifacts, prior critical incident)

## Being stuck in your focus

Important to have a focus,  
expectations of what you expect to be important

But you learn by attending to misconceptions

# Affinity Diagrams

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Generated during group session

Each observation, idea, note to a post-it

Notes are hierarchically organized into themes, based on project focus

Various models for analysis



# Today

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## Project Status

Design Research and Contextual Inquiry

Ethnographic Principles

Contextual Inquiry Principles and Practice

**Additional Design Research Methods**

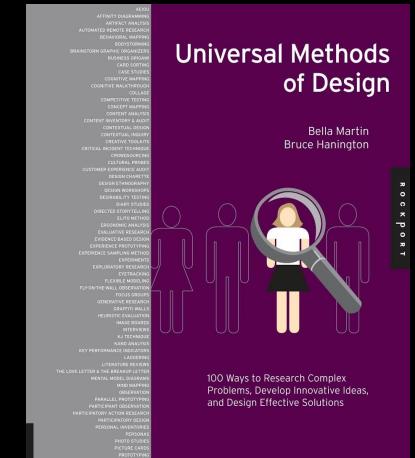
## Time with Project Groups

# Many Design Research Methods

Many other design research methods are available, with different strengths

Often apply multiple methods for complementary perspectives

Fundamental goal remains to gain design insight through improved understanding of problems



See Canvas Resources

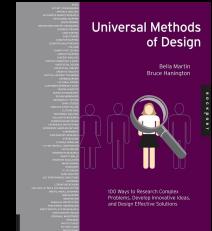
# Interviews

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Similar to contextual inquiry,  
but lacking context of direct observation

Set a focus, record, take notes, have two people

Method 48



Can be Structured / Semi-Structured

Avoid leading questions

Interpret responses

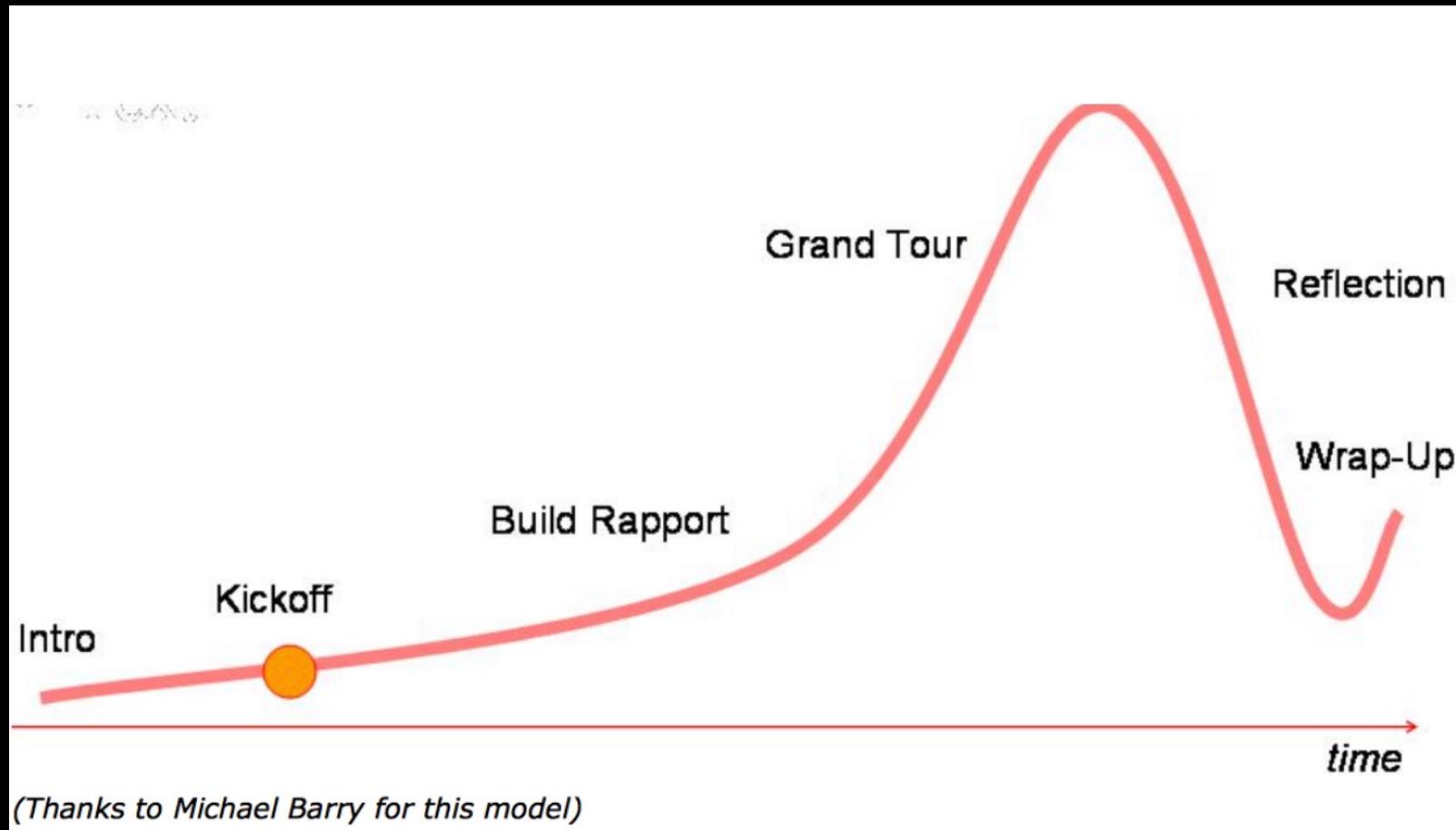
Repeat and rephrase, probe terms and concepts

“can you give an example”, “tell me more”,  
“what do you mean”, “why was that important”

Ask when it did not happen as expected

# Interview Timeline

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# Interview Timeline

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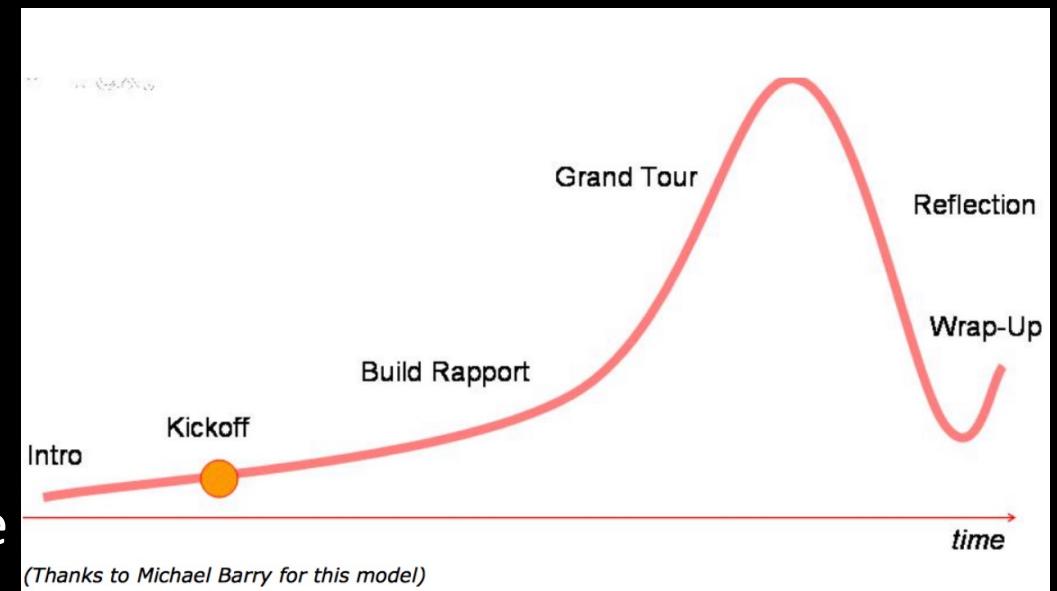
Intro: “Hi, I’m a UW student studying coffee drinkers. I’m interested in hearing about your experience with coffee. There are no right or wrong answers, I just want to hear what you have to say.”

Kick-off: “Do you drink coffee?”

Build rapport: “Did you have a coffee today? How was it? Do you have a favorite coffee?”

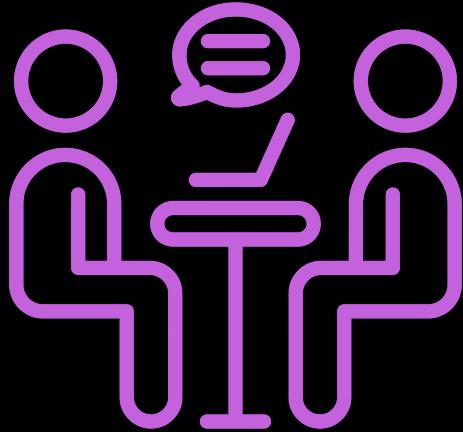
Grand Tour: “Can you describe your most memorable coffee experience?  
Why was it so unique? What happened?”

Reflection: “If you were designing the ultimate coffee shop based on your ideal experience...



# Types of Interviews

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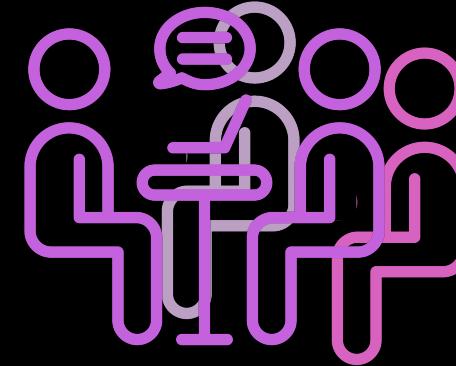


Classic 1-on-1



Debrief/Reflection

Participant does [activity],  
Follows up with Interview



Pair/Group Interview

Participants with a preexisting relationship, interviewed about their joint experiences

# Interview Activities

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What would provide something meaningful to reflect on?

Storytelling Exercise:

“Tell me about a time when...”

*[Participant tells story]*

“Thinking about that specific example...”

Prompted Reaction:

“Take a look at this Thing™. How would you...”

Pros/Cons, Guided Critique

“What specifically about X do you find frustrating / challenging / etc.?”

“If we were to totally redesign the system– what parts of it would you want to keep?”

# Questionnaires / Surveys

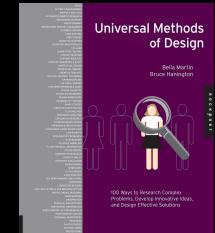
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Can gather quantitative data

Do you need quantitative data?

Is that data at a meaningful scale?

Method 67/83



Can be used for screening,  
paired with other methods for more depth

Screening questions to confirm / identify eligibility

Open-ended questions for analysis

Contact for follow-up interviews

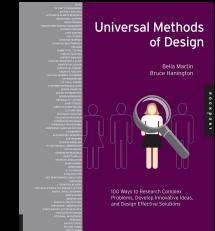
# Focus Groups

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Moderated conversation among peers

Moderator helps establish this,  
participants share experiences, wants/needs

Method 43



Researcher benefits from their conversations

Prompts discussion topics

Explanations of problems in status quo

Underlying emotions in a process

Desires / disagreements for new designs

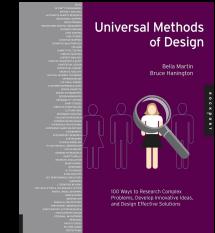
# Diary Study

Participants keep a diary

Possibly as primary data

Possibly to create mindfulness before interview

Method 30



Need						
Mon	Tue	Wed	Thur	Fri	Sat	Sun
12am - 3am	3am - 6am	6am - 9am	9am - 12pm	12pm - 3pm	3pm - 6pm	6pm - 9pm
3am - 6am	6am - 9am	9am - 12pm	12pm - 3pm	3pm - 6pm	6pm - 9pm	9pm - 12am

You needed:  Info.  Assist.  Other

What did you need? to know if  
Stroller could be used on  
Don Valley Br Trail

Why did you need it? I wanted to  
take baby forward in trail  
but it must be ice-free

Where were you? at home

What were you doing? planning

When did you need it? 5-10 mins

What I needed was very important.

Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree

# Diary Study

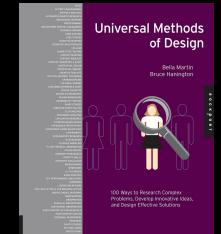
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Method 30



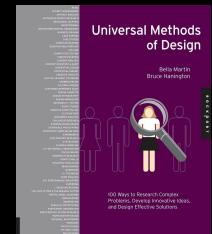
# Experience Sampling

Emerges from “beeper study” method

Can be random, can be context-aware

Can gather self-report, photos, sensor data

Method 37



# Card Sorting

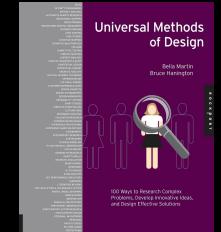
Elicit groups / relationships

Talk aloud can also reveal understanding

Can evaluate existing categories

Could be combined with brainstorming

Method 10



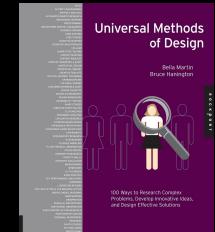
# Many Design Research Methods

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## Personal Inventories

“collections of artifacts selected by the participant”

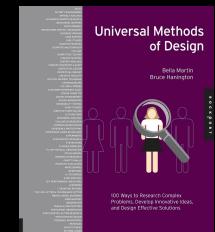
Method 62



## Cultural Probes

“materials designed to inspire people to thoughtfully consider personal context and circumstance”

Method 24



“maps ... asked the elderly to mark zones for meeting others, being alone, dreaming...”

# Many Design Research Methods

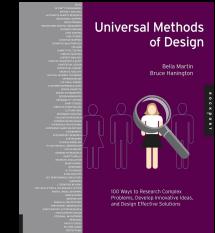
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## Behavior Mapping

“place-centered mapping”

“individual-centered mapping / traces”

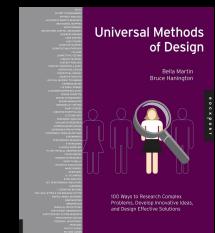
Method 06



## Graffiti Wall

“candid feedback on behaviors and perceptions of current spaces”

Method 45



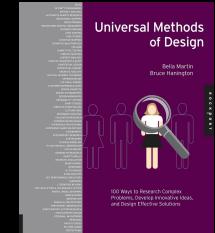
# Shadowing

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“observational method that involves tracking somebody in their role”

“not intended to be covert ... however subtle instances might be completed in public spaces ...”

Method 76



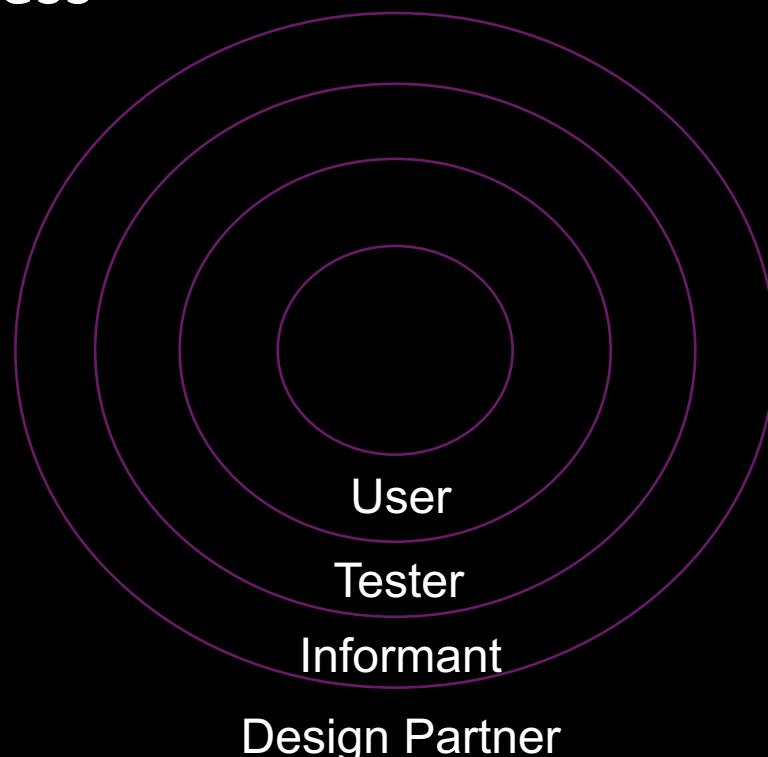
Useful reminder to be thoughtful and safe  
multiple groups have been asked to leave  
be safe, be mindful of people

# Participatory Design

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Set of methods focused on engaging people throughout a collaborative design process

In democratic society,  
design needs to be democratic



Ehn, 1993.

Druin, 2002.

# Participatory Design



# Additional Reading

## Ethnographic themes

### 7

### Ethnographic Field Methods and Their Relation to Design

Jeanette Blomberg  
*Xerox Palo Alto Research Center*

Jean Giacomi  
Andrea Mosher  
Pat Swenton-Wall  
*Xerox Corporation*<sup>1</sup>

In this chapter we explore the relationship between developing a descriptive understanding of human behavior and designing artifacts which ostensibly support the activities described. Although there is growing recognition that an understanding of users' current work practices would be useful in the design of new technologies, the debate about what it would mean to acquire such understanding and to link it with design is only beginning. What are the implications of developing ways of representing the views and activities of communities of practice outside one's own such that the knowledge would be useful in design?

The ethnographic approach, with its emphasis on "natives' point-of-view," holism, and natural settings, provides a unique perspective to bring to bear on understanding users' work activities. However, anthropology is mute when it comes to ways of integrating such understanding with design. The languages of design and of ethnography evolved in quite different contexts and in relation to different concerns. While the ethnographer is interested in *understanding* human behavior as it is reflected in the lifeways of diverse communities of people, the designer is interested in *designing* artifacts that will support the activities of these communities. The current challenge is to develop ways of linking these two undertakings.

<sup>1</sup>We wish to thank members of the Industrial Design/Human Interface Participatory Design Project who worked with us in our exploration of the relevance and power of ethnographic field methods for design.

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See Canvas Resources

# Additional Reading

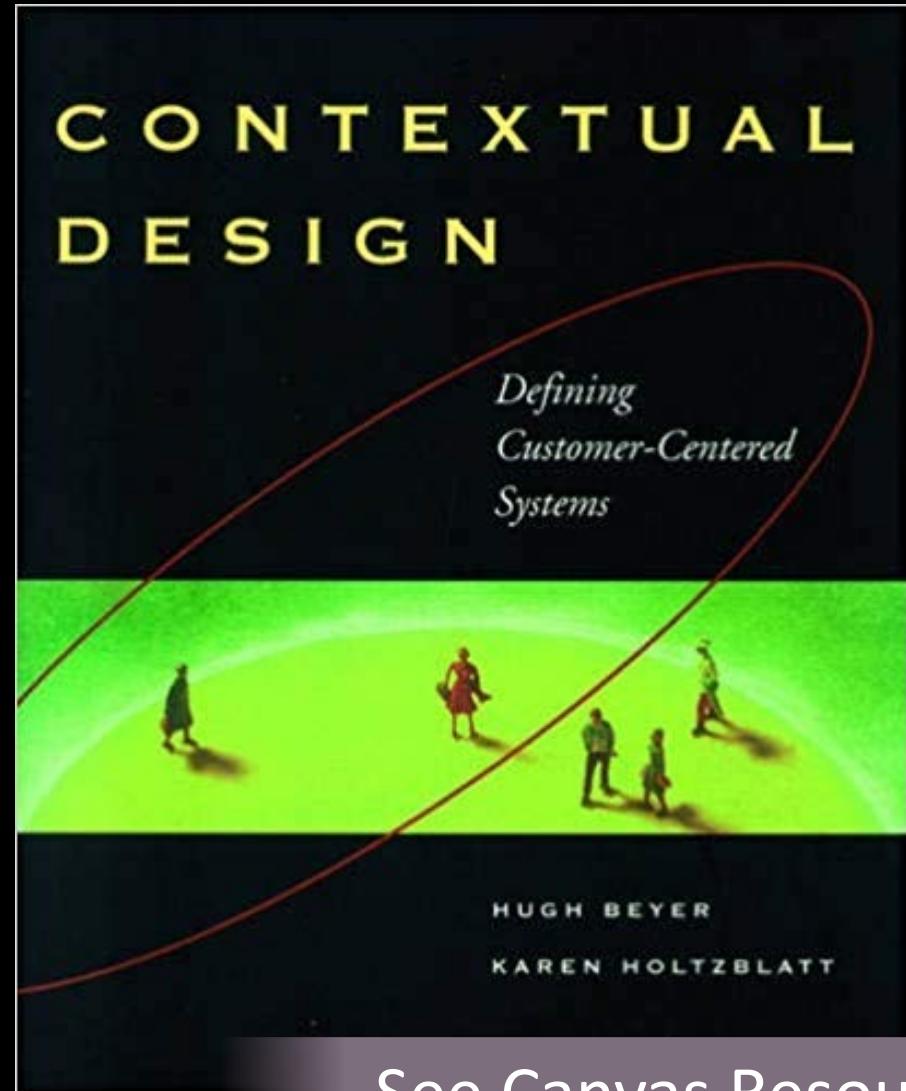
## Contextual Inquiry

Principles

Associated Models

A reasonable book for “how to design”, with good theory, although examples feel dated

Slightly improved in newer version



See Canvas Resources

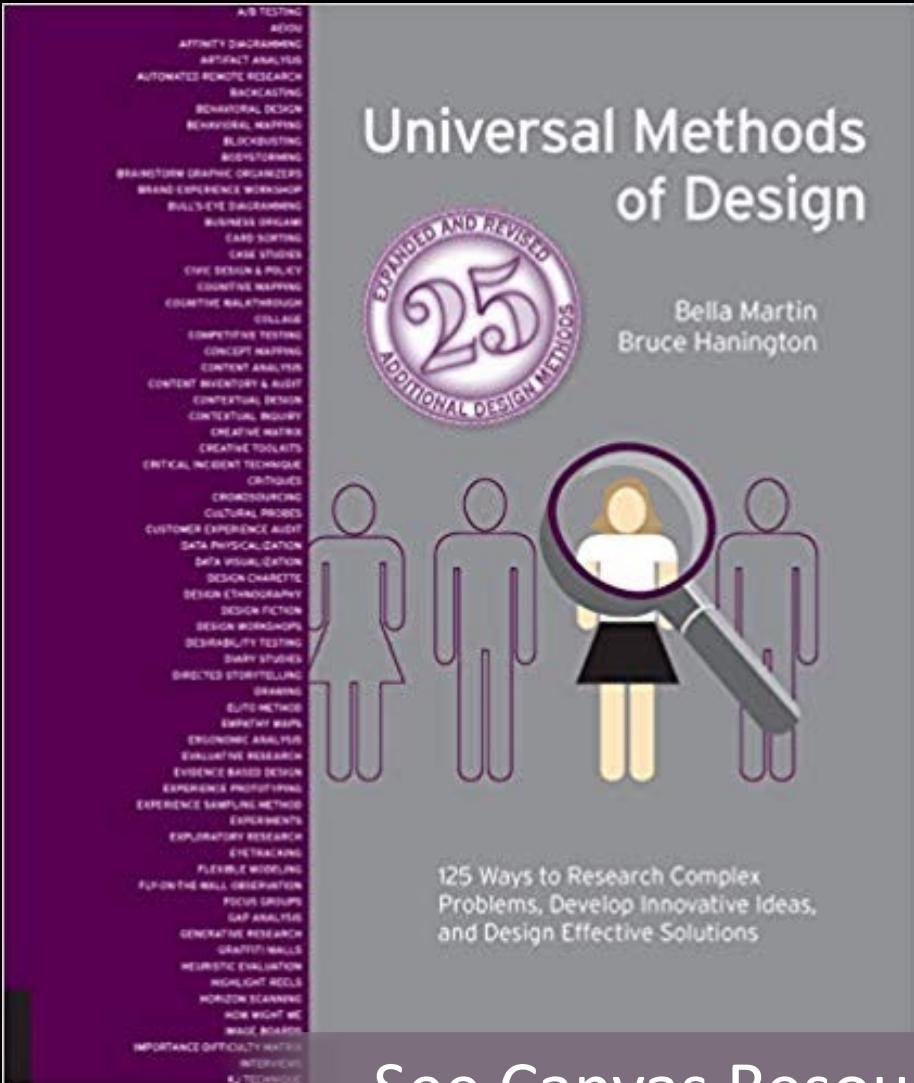
# Additional Reading

## Overview of Methods

Many methods

Each briefly described

Useful for browsing,  
as a jumping off point



See Canvas Resources

# Additional Reading

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Text presentation of ideas and approaches developed over many VSD-based projects



# Additional Reading

## Jumping off point for participatory design

PUBLISHED:  
(2002) *Behaviour and Information Technology (BIT)* 21(1), pp. 1-25.

### The Role of Children in the Design of New Technology

Allison Druin  
University of Maryland, College Park, MD USA  
[allisond@umiacs.umd.edu](mailto:allisond@umiacs.umd.edu)

#### Abstract

This paper suggests a framework for understanding the roles that children can play in the technology design process, particularly in regards to designing technologies that support learning. Each role, *user, tester, informant, and design partner*, has been defined based upon a review of the literature and my lab's own research experiences. This discussion does not suggest that any one role is appropriate for all research or development needs. Instead, by understanding this framework the reader may be able to make more informed decisions about the design processes they choose to use with children in creating new technologies. This paper will present for each role a historical overview, research and development methods, as well as the strengths, challenges, and unique contributions associated with children in the design process.

Categories and Subject Descriptors: I1.1.2 [Models and Principles]: User/Machine Systems – human factors; I1.5.2 [Information Interfaces and Presentation]: User Interfaces – evaluation/methodology; interaction styles

General Terms: Human Factors, Design, Theory

Additional Key Words and Phrases: Children, design techniques, participatory design, evaluation, educational applications

#### 1 The challenges of children and technology

*Computers for kids need to be fun like a friend, but can make me smart for school.  
They should also be friendly like my cat. The real thing is that they shouldn't  
make me have to type since I don't like that. I can talk much better!*  
(Researcher Notes April 3, 1999. Quote from an 8 year-old child).

Children have their own likes, dislikes, curiosities, and needs that are not the same as their parents or teachers. As obvious as this may seem, we as designers of new technologies for children sometimes forget that young people are not 'just short adults' but an entirely different user population with their own culture, norms, and complexities (Berman 1977). Yet, it is common for developers of new technologies to ask parents and teachers what they think their children or students may need, rather than ask children directly (Druin 1996, Druin et al. 1999). This may in part be due to the traditional power structure of the 'all-knowing' adult and the 'all-learning' child, where young people are dependent on their parents and teachers for everything from food and shelter to educational experiences. At times these relationships may make it difficult for children to voice their opinions when it comes to deciding what technologies should be in schools or at home. In addition, we as designers of technologies have our own biases and assumptions about children. Some of us may be parents of our own children, but all of us were once children ourselves with special memories of what we liked and didn't like about the world.

See Canvas Resources

## Looking Ahead: *Your Design Research*

**Assignment 2b (Design Research Plan):**  
“You are required to conduct design research to learn from at least **three** people who might use your design.”

# Design Research Advice

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## Critical Perspective:

You are not doing “science” or even “testing”, you are seeking design insight, are there to learn

Ensure 2b's description of method is detailed enough for feedback

Be sure you design your research to learn  
Many projects defined by a single participant insight  
Others by a contrast between two participants

Do not assume you already know the answer

When surprised, remember to follow up for more

# Participants

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Be intentional in your recruitment

Some projects will be relatively constrained

Others have more choice,  
should be purposeful in who is recruited

Recruit people who can give you that “surprise”

Ensure 2b's  
description of  
recruitment plan  
is detailed enough  
for feedback

Our requirement of 3 participants is the minimum

Keep going until you find your key insights

# Working with Marginalized Populations

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Ethnographic methods have a history of being “extractive”  
(This is a bad thing)

There is a mutual exchange:

Participants are giving you their time and expertise

What are you giving them in return?

Be respectful & considerate of participants’ time

# Working with Marginalized Populations

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Your “entering focus” is probably different from your participants’

This is a good thing! But also:

Be careful not to project your focus onto them

Be mindful not to push back

Your participants don’t owe you anything

Be careful asking a question you wouldn’t ask your grandmother

# Seeking Insights

Hawley provides a “checklist” of ideas on how to structure research

Perspective can be relevant beyond interviews

Use it to review and revise your research plan

Also in critique next week

Welcome		
#	Concept	Description
W1	Set appropriate expectations	Review context of interview, purpose of interview, roles of moderator, note taker and participant, estimated duration, moderator is not the designer
W2	Reassure participant	Not a test of the participant, here to learn about the strengths/weaknesses of design. Participant should not speak for others unless specifically asked.
Questioning		
#	Concept	Example
Q1	Avoid leading questions	Bad: How did you like the login screen? Good: What did you think about the login screen?
Q2	Where possible, ask open-ended questions instead of binary or limited choices	Bad: Does this make sense? Good: What are your impressions of this?
Q3	Ask opinion questions using balanced emphasis on different options	Bad: Is the feature helpful to you? Good: Is the feature helpful to you or is the feature not helpful to you? Why?
Q4	Ask about actual behavior for the individual, avoid hypothetical predictions for larger groups	Bad: Would this be a good idea? Good: How valuable would this be to you/in your job?
Q5	Don't assign blame in probing questions	Bad: Why did you do that? Good: I noticed you did X. Talk me through your thought process.
Q6	Ask for specific examples and encourage storytelling	Bad: Do you have trouble with the search function? Good: Tell me about a time when you couldn't find what you were searching for.
Q7	Avoid overly complex questions that require lengthy descriptions	Bad: When this site was designed, there was discussion whether... Good: How could this site best meet your needs?
Q8	Don't ask participant to design solutions, ask for opinions on experience	Bad: What would be the best way to design this? Good: In your experience what other applications have done this well?
Q9	Ask curious questions to explore, but avoid argumentative probes	Bad: Do you have anything else to say about...? Good: Can you tell me more about...?
Q10	Ask "Why" to understand reasons for certain actions.	Bad: How would you rate your experience with the site? Good: How would you rate your experience with the site? Why?
Interacting		
#	Concept	Description
I1	Let the participant talk	Pause to let them finish a thought - don't talk over them.
I2	React to body language	Pick up on participant body language of frustration or annoyance and adjust interaction accordingly.
I3	Don't defend a design	Act as a neutral party outside of the design team - moderator is there for research, not to defend designs.
I4	Watch for self-censoring	Probe further when participant censors themselves by trying to be too nice, or blaming themselves.
I5	Develop friendly rapport	Be welcoming and helpful to participant without being too empathetic if participant is negative toward a design.
I6	Provide neutral encouragement	Offer fair assessment of participant's responses - don't overly praise positive or negative comments.
I7	Repeat answers	State responses back to participant to ensure accuracy on complex points and to encourage elaboration.
I8	Minimize moderator distractions	Be aware of annoying or repetitive gestures and phrases from the moderator and minimize them.
I9	Encourage think-aloud	For task-based questions, remind participant to think-aloud.
I10	Don't force opinions	Ask about participant opinions where appropriate, but don't force opinion if participant doesn't feel strongly.
Closing		
#	Concept	Example
C1	Ask for overall assessment of subject	"Can you summarize your experience with X today?" or "From your perspective, what is the most important thing to consider in the design of X?"
C2	Request comments regarding topics not raised by moderator	"What comments do you have on topics we didn't cover today?" or "What else should I have asked?"

# Picking Methods:

## *What are you trying to learn?*

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### Deep Understanding of...

Relationship between Person & Specific Context: **Contextual Inquiry**

Person's lived experience, perspective: **Interview-based Methods**

How a Person varies over time / across contexts: **Diary Study-type Method**

### General Understanding of...

Many people's interaction with a system: **Fly on the Wall / Shadowing**

*Can augment with follow up interviews!*

### Large-scale, shallow data

Statistics (that cannot otherwise be found): **Survey**

*This is the ONLY place I would recommend a Survey*

# EXP: Doing Something *Different*

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In addition to your core research method, propose additional research that uses an *uncommon* method  
*(ie, not Interview, CI, Diary, Fly on the Wall, or Survey)*

Use these slides & provided resources for reference, but some of my personal faves:

Personal Inventory

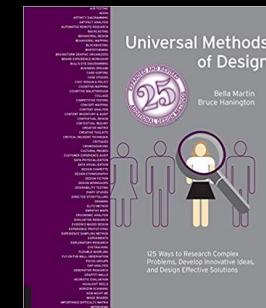
Cultural Probe

Graffiti Wall

Artifact Analysis

Behavioral Mapping

Love Letter / Breakup Letter



CSE 440:  
Introduction to HCI

# 04 – Design Research

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