IN4MATX 231:
User Interface Design & Evaluation

Class 3:
Surveys

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Announcements

- Reminder: project proposals
  - Document: ~1 page
  - Presentation: ~5 minutes
  - Both should list team members, problem, and expected components
- Due Monday night (e.g., Tuesday before class)
  - I'll download the slides around noon on Tuesday

Today’s goals

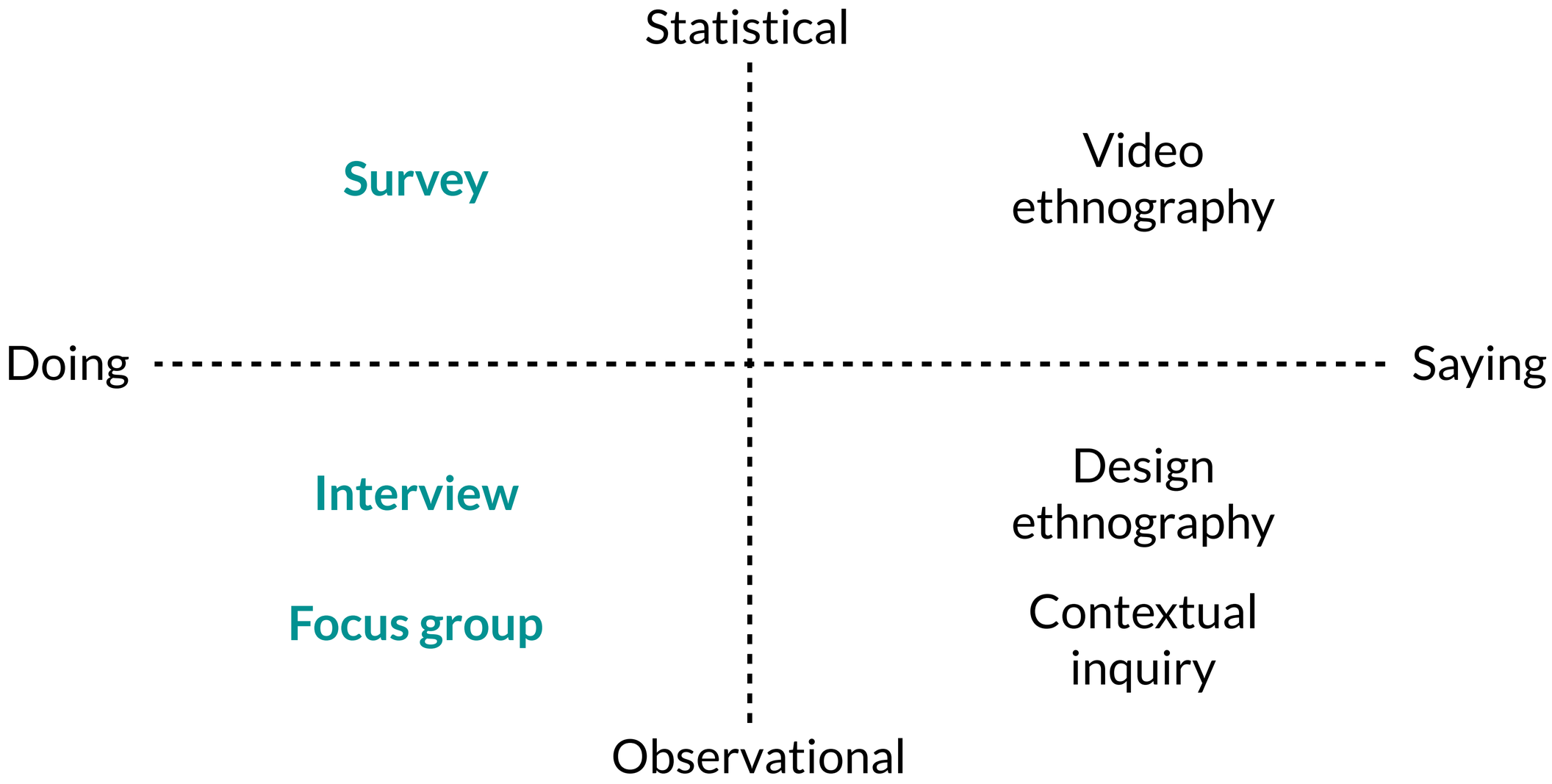
By the end of today, you should be able to…

- Describe strengths of surveys over interviews or observations
- Provide examples of needfinding design activities and apply them

Participatory design (or co-design)

- An approach to design attempting to actively involve all stakeholders
- The goal is to give stakeholders the same tools, training, etc. as the experts
- Not really a process; can use any methods
- Often times, stakeholders will make final decisions about what features to include, how they should be designed, etc.
  - In HCD, the researchers/designers typically incorporate stakeholder feedback while making the final call

Needfinding



More on interviewing

- Preamble
- The Grand tour
- Questions vs. Prompts
- Analysis

More on interviewing

Preamble

- Before an interview starts:
  - Introduce yourself
  - Introduce the project
  - Remind them of any confidentiality or anonymity commitments
  - Explain why you have asked them to participate

More on interviewing

The Grand Tour

- First question should lead into the rest of the interview
  - How might you structure it?

More on interviewing

Questions vs. Prompts

- Avoid leading questions
  - "*What do you think about X?*" Is better than "*What do you like about X?*"
- Prompts are good ways to get participants to say more
  - Silent, echo, agreeing, tell me more, clarifying

More on interviewing

Questions vs. Prompts

- Your goal is to get the participant on a topic and then get out of the way
- To do this, you must listen
  - It’s hard to listen and take notes
  - Recording can make you get lazy about listening
  - Listening well may mean ignoring parts of your interview guide

More on interviewing

Analysis

- Deference effect
  - People telling you what they think you want to hear
  - This can be subtle; remember your role, employer, demographics, etc.
- Expectancy effect
  - Experimenters/interviewers tend to get the answers we're expecting
  - Usually not due to correct intuition, but rather shaping the response

More on interviewing

- Interviews are typically have some structure,
  but give a lot of flexibility for the researcher to prompt or probe
- Prompts and probes generally lead to greater depth
- Back and forth conversation makes it easier to build rapport
- Downsides?

Surveys and questionnaires

Surveys and questionnaires

- Structured set of questions a person responds to
- Much more structured than most qualitative techniques
- But… does not have to be strictly quantitative

Surveys and questionnaires

- It is very easy to design a bad questionnaire
- How many terrible surveys have you taken?

Surveys and questionnaires

- Ideally, should address:
  - Coverage
  - Sampling
  - Nonresponse
  - Measurement error

Surveys and questionnaires

Getting people to respond

- Increase perceived rewards
  - Provide information about the survey and its goals
  - Ask for help or advice
  - Say thank you
  - Give tangible rewards
  - Support a group’s values
  - Make the questionnaire interesting

Surveys and questionnaires

Getting people to respond

- Establish trust
  - Lean on your role/organization
  - If payment is provided, give it in advance
  - Make the task feel important (possibly more important than it is)
  - Ensure confidentiality and security (and anonymity when necessary)

Surveys and questionnaires

Getting people to respond

- Decrease perceived costs
  - Make it convenient to complete
  - Make it as short as possible
  - Minimize requests for identifiable or sensitive information

Surveys and questionnaires

Tailor everything

- Survey mode
- Sample
- Contacts (outreach)
- Incentives
- The overall questionnaire
- Each specific question

How might you tailor:

- A questionnaire about technology needs of new parents?
- A survey targeted at online game streamers?
- A questionnaire of visually impaired people's device ownership and use?

- Survey mode
- Sample
- Contacts (outreach)
- Incentives
- The overall questionnaire
- Each specific question

Surveys and questionnaires

- Answers can lead to question forks
  - “*If you have used Snapchat in the last week…*”
  - Make yourself a flowchart so you don’t get lost
  - Online tools make this easier than paper
  - Be aware of length issues resulting from these forks

Left off here

Surveys and questionnaires

- For each question, ask:
  - Do I need to know that?
  - Do I need to know it at that level of detail?
- How you word the question will impact results
  - Pilot with your friends
  - Then, with people who are not your friends

Surveys and questionnaires

- Open-ended
- Close-ended (scalar)
  - Nominal: compare a set of categories (e.g., colors)
  - Ordinal: ordered set of categories (e.g., strongly disagree, agree)
- Partially closed
  - Has an other

Surveys and questionnaires

- Make sure question applies to respondent and then requires an answer
- Ask one question at a time
- Use simple and familiar words, no acronyms
- Use well-defined words
- Use complete but simple sentences
- Avoid double negatives
- Match the question to the responses

Surveys and questionnaires

Visual design

- Ensure that you're not accidentally introducing biases through use of color, **bolding**, fonts, etc.
- Check spacing and alignment on various screen sizes/orientations
- Participants will see relationships, group questions, etc. based on how you have them laid out

Survey Design Activity

Survey Design Activity

- Your company’s pillow sales dropped significantly over the last year.
  To help get a new and improved pillow out for the holiday season,
  you've been tasked with understanding:
  (1) how people use pillows today, and
  (2) and what they look for in a pillow's design.

- Write a few survey questions (~5) which can help answer these questions.

- (Less important) think about the demographics of who you might want
  to survey, how many people, and how you might analyze the data.

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