Interviews and Questionnaires

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Part 1: Interviews
How to Conduct Them

Interview Types

• Conversations with a purpose (Kahn and Cannell, 1957, Dynamics of Interviewing: Theory, Technique & Cases)

• Open-ended, semi-structured, structured
  – Open-ended when probing someone about their first impressions (e.g. a new cell phone)
  – Semi-structured for asking about a prototype that is half-designed (e.g. icons for a PDA prototype)
  – Structured interviews for asking a specific set of questions where the goals of study are clearly understood (e.g. a new search engine feature)

Pros and Cons

• Open-ended
  + Provide rich and unexpected findings
  – Can be led astray and miss valuable info
  – Difficult to analyze and replicate

• Semi-structured
  + Preplanned questions and probes enable unknown but also systematic coverage

• Structured
  + Replicable and consistent across interviewees
  + Precise answers
  – May overlook key information as questions are set in advance

Example of Open-Ended Interview

• Functionality
  – What do you like most about the phone?
  – What do you like least?
  – How does it compare to your current phone?

• User groups
  – Who do you think it will appeal to most?
  – Would you buy one?

• Services/cost/plan
  – What do you think the plan of services offered?

Example of Semi-Structured

• Which websites do you visit most frequently? <answer>

• Why? <answer mentions several but stressed that she prefers GreatestHits.com>

• And why do you like it? <silence, followed by answer>

• Tell me more about GreatestHits <answer>

• Anything else? <answer>

• Thanks. Are there any other reasons you haven’t mentioned yet? …
Example of Structured Interview

- How easy is it to find the text box on the page?
- Was it easy to find the go back button?
- Are the graphics pleasing to the eye?
- Are the links at the right level?
- Was there too much or too little information on the home page?

What not to ask/say/do

- Avoid compound questions:
  - How do you like your new cell phone compared to all the others you have owned?
  - How do you like this cell phone?
  - Have you owned other cell phones?
  - If so, how did you like your last phone?
  - How did your last phone compare to this phone?
  - Which did you like better?
  - And the one before that?

What not to ask/say/do

- Avoid leading questions that pre-empt
  - Do you think this style of interaction is cool?
  - What do you think of this style of interaction?

- Avoid judgments and inserting own views/preferences:
  - E.g. Really? No way! Oh, I prefer the other one.

What to do/not to do

- Let interviewees think and allow for silences
  - Do not get nervous and feel you have to keep talking to fill in the gaps

- Use probes to get more information on a topic
  - E.g. Is there anything else you want to say?
  - Can you say a bit more about X?

- Use props to enable more specific answers
  - E.g. a prototype, a real object, photos

How to Conduct an Interview

- Robson, 2002, Real World Research
  - An introduction (what the interview is about, do they mind being recorded, etc…)
  - Warm-up to break the ice (e.g. how far have you come from? Where are you from?)
  - Main session (ask most difficult/probing questions at end when relaxed and cued in)
  - Cool-off period (ask if there is anything else they’d like to know about the project)

Exercise: Open-Ended Interview

- Camera phone usage
  - Research question: Not clear to what extent people are using camera phones to send pictures. How are they being used?

- What kinds of questions should we ask in an interview to answer our research question?
Exercise: Semi-Structured Interview with Probes

- Come up with a method of using the camera phone or other probe as part of the interview to elicit more specific information

Possible Approach to Semi-Structured Interview with Probes

- Suggest looking at five random images currently saved on the camera
- Questions to ask:
  - What does the image show?
  - Did you take it?
  - What was happening at the time?
  - Can you tell me more about this photo?
  - Have you shown it to anyone else?

Part 2: Questionnaires

How to design and use them

Why Use a Questionnaire?

- Quick, easy and cheap method to administer to large numbers of people
- To collect people’s views, preferences, habits, opinions and demographics
- When privacy is important (e.g., asking people about their sex lives, attitudes to abortion)

How Do They Differ From Interviews?

- Respondents can answer in their own time and not be put on the spot
- Less social pressure and embarrassment
- Can review and revise answers more easily
- Can choose not to answer questions
- Many design issues are the same but more flexibility in structure and presentation
- Written text questions and design of interactive forms can affect responses

What To Ask in a Questionnaire

- Demographic information (gender, age)
- Previous experience (with computers, the web, domain of study)
- Views about X (where X is a website, piece of software, a device, a habit, etc)
- Experience with X (enjoyable, frustrating)
- Personal usage of X (e.g., frequency of playing video games, downloading music)
- Make sure the questions address your core research questions
How To Ask Questions

• Keep questions simple and avoid multifaceted ones
• Use closed questions where possible and offer a range of answers to choose from – less demanding for the respondent
• Use yes/no and rating scales to force user’ s to select a response

Example Q&As

• What do you like most about your phone?
  ◦ Cheap calls
  ◦ Has many features
  ◦ Looks cool
  ◦ Easy to use
• Rate your phone:
  Very cheap 1 2 3 4 5 6 7 Very expensive
  Cool looking 1 2 3 4 5 6 7 Not cool
  Easy to use 1 2 3 4 5 6 7 Difficult to use

What are wrong with these Qs?

1. How many times do you eat a day?
   once a day
   twice a day
   three times a day
   more than three times a day
2. What did you eat for breakfast today?
   Bowl of cereal: 1 2 more
   Bagel: 1 2 more
   Fruit (please specify):

How To Format Answer Types

• Age should be in brackets
  – e.g., 15-19, 20-24, 25-29, 30-34, 35 and over
• Experience should be in chunks
  – e.g. daily, weekly, monthly, never
• Opinions should provide a number of choices along one line, e.g.,
  strongly agree agree neutral disagree strongly disagree

Open-Ended Questions

• Use when want to get personal information and ‘anything else’ answers
• Make sure the space for the answer is big enough but not too big, e.g.

What do you write about in your blogs?

Frequency Data

• If asking a question about frequency:
  – rather than offer choices that are open to interpretation such as:
    1. Very Often
    2. Often
    3. Sometimes
    4. Rarely
    5. Never
  – it is better to quantify the choices, such as:
    1. Every Day or More
    2. 2-6 Times a Week
    3. About Once a Week
    4. About Once a Month
    5. Never
Rating Scales

- Likert scales:
  - Devised in 1932 by Renis Lickert to measure attitudes to topics/statements using descriptive terms, e.g.,
    My job provides a lot of variety.
    Strongly Disagree Slightly Undecided Slightly Agree Strongly Agree
    Strongly Disagree Disagree Agree
- Can also use a number, but rating is arbitrary:
  I find this software easy to use.
  strongly disagree 1 2 3 4 5 6 7 strongly agree

Semantic Differential Scales

- Used less frequently than Lickert scales
- Explore bi-polar attitudes to something
- Measure intensity and directionality of a reaction.
  E.g.:
  Blogs Good __ __ __ __ __ __ Bad
  3 2 1 0 1 2 3

Scales for Children

- Lickert scales can be adapted for children and different cultures:
  ![Wong-Baker Pain Rating Scale](image)

Thurstone Rating Scale

- Ask a question multiple ways:
  - I had trouble finding what I wanted.
  - I liked how easy the software was.
  - The software has many convenient features.
  - The software was confusing.

Paper v.s. Online?

- Online questionnaires can be easier to administer and simpler to analyze
- Data can be directly put into a spreadsheet and analysis done automatically
- Many more people can be reached
- But, is there a catch?

The Online Questionnaire

- People are more revealing, honest and consistent in their answers to online questionnaires
  - Will say more about personal topics such as eating, drinking and amount of exercise
  - Students rate their instructors less favorably
  - Less social pressure to conform
- Response rate is much lower than for mail and paper-based questionnaires
  - E.g., student evaluations
Structuring of Information on Page v.s. Online

- Online questionnaires offer more opportunities for structuring information and in turn affecting how people read, navigate and respond
  - Use of headers and placement of questions
  - Use of dropdown menus, radio buttons and jump-to options
- Questionnaires do not look the same in different browsers and on different monitors

Scrollable v.s. Interactive

- Displaying multiple questions on the screen v.s. one question per screen
  - Faster response rates
  - More consistent answers
  - More questions filled in

Physical Layout Matters!

- People with computer experience prefer left justified response boxes (paper-based questionnaires are usually placed on the right)

Physical Layout Matters!

- Plain web surveys give a better response rate than those with fancy designs containing colors, graphics and tables

- Radio entry v.s. check boxes?
  - Radio buttons “erase” automatically when selecting another button
  - Checkboxes require a click on the box to erase

Dos and Don’ts of Web-based Questionnaires (Dillman and Bowker 2000)

- Use a welcome screen that is motivating, that emphasizes the ease of responding, and that shows respondents how to move to the next page
- Have the first question fully visible on the first screen. The first question is not the place for filtering questions or drop-down boxes.
- Avoid lack of spacing, crowded horizontal design, and unconventional layout. Brightness, fonts and spacing can greatly assist respondents in navigating questionnaires.
- Use conventional vertical layout with numbered questions, and distinct space between questions and responses.

Continued

- Provide instructions for the necessary computer actions (i.e., erasing radio buttons, drop-down menus, and clearing open-ended questions)
- Use a scrolling design that allows respondents to see all questions unless future questions are changed based on answers
- Use symbols or words to give respondents some idea of their progress in the survey
- Web survey respondents, like paper respondents, need some indication of how near they are to completion
Web Surveys
• Lots of free tools for designing your own online questionnaires

Experience Sampling Method
• To get answers to questions “in the moment”, want to ask questions throughout the day
• Experience sampling usually uses technology to ask questions
  – At random time intervals
  – Triggered by specific event

ESM guidelines
• You are interrupting their normal task, so:
  – Should take 15-30 seconds to answer all the questions in a session
  – No free-form answers… just radio buttons and check boxes
  – Could request voice recording if necessary (harder to analyze)

Team Assignment
• Design the demographic section of a questionnaire for your target population
• Possible items of interest:
  – Basic: Age, gender, education, income
  – Technology: experience w/, years of ownership of, internet access
  – Health: types of health issues, how long they’ve had them, current treatment, etc…

Next Week
• Monday
  – Reading response for Context papers
• Wednesday
  – Data analysis
    • Bring transcripts from an interview or field notes from an observation
    • Bring responses to a questionnaire