Considering Qualitative Evaluation

University of Calgary: Sheelagh Carpendale, Alice Thudt, Jo Vermeulen, Jagoda Walny

University of St. Andrews: Uta Hinrichs

Cork Institute of Technology: Trevor Hogan

Tableau: Melanie Tory
Overview

Talk 1: Setting the stage: qualitative
Talk 2: Observation as a skill
Activity 1: Practicing observation
Activity 2: Interviewing 1
Activity 3: Interviewing 2
Talk 3: Interviewing as a skill
Activity 4: Interviewing 3
Panel: open discussion
Talk 4: In summary – next step analysis
Interviewing as a Skill
interviews as first-hand insight

Experiences when interacting with visualizations

Discovery and Insight

Comparing experiences with different visualizations
the interview as part of a study

- When to conduct the interview?
- Interview structure/style
- Challenges & pitfalls
- Example types of interview questions
- Data collection
interview vs. questionnaire

• Questionnaire
  – For gathering **brief feedback** on **well-defined questions**
  – E.g., Multiple choice questions or ratings through Likert scales
  → Answers from questionnaires are easy to summarize and quantify

• Interview
  – If different interpretations/perspectives on questions are likely
  – If questions will likely trigger more elaborate answers
  → Interview enables follow-up questions

• Combinations are often useful
when to conduct the interview?

• After the event of interest
• In-between events of interest
• During event of interest ➔ think-aloud protocol

Discovery and Insight

Comparing experiences with different visualizations
interview structure/style

• **Structured**
  – Pre-defined interview questions
  – Every participant gets the same questions

• **Semi-structured**
  – Pre-defined core questions
  – Follow-up questions depending on participants’ answers

• **Open**
  – Questions openly evolve around a particular topic
  – Strongly influenced by participants’ individual experience
interview structure/style

- Linear style
- Iterative style

The Elicitation Interview Technique: Capturing People’s Personal Experiences of Data Representations.
T. Hogan, U. Hinrichs, E. Hornecker

InfoVis Papers: Evaluation (last talk)
Wednesday 10:30-12:10, Key 3+4+6
challenges & pitfalls

• Participants
  – Post-rationalization
  – Pre-assumptions about experience & study
  – Seeks a positive communication with interviewer

• Interviewer
  – Pre-assumptions about event and the participant’s experience
  – Asks biasing questions
  – Dominates the interview
  – Challenge the participants’ memory
  – Showing agreement or disagreement with the participant
  – Judges the participant (worst case)
know your own bias

• Think about and **write down** your own assumptions and biases

• Example questions

  – What do you really want to find out from the study?
  – What do you think will come out of the study?
  – What is your relationship to the space, environment, prototype, people your study focuses on?
  – What are your assumptions about participants’ background, opinions, behaviour...?
  – What are your assumptions toward the prototype your are studying?
  – Are there any other potential areas of bias that you bring with you?
allow for silence

- Let the participant gather their thought
- Be comfortable with the silence
- Project curiosity and empathy
let the participant talk

- Start with brief open-ended questions
- Let the participant describe their experience in their own words
- Then ask more specific follow-up questions
practice your interview

• Really know the core questions/topics you want to ask about
  – Always formulate them in the same way
  – In case you get side-tracked, know the topics you want to get back to

• Practice how to formulate follow-up questions

• Develop an awareness for “trigger” words
  – Asking follow-up questions
  – Asking for an example
thoughts on interview questions

• Ask one question at a time

• Avoid leading questions
  “Did you find the visualization easy to use?”
  Better: “How did you find interacting with the visualization?”

• Try to use the same words used by the participant
  “You mentioned that you found the visualization to be “confusing” – can you explain what you found “confusing”?”

• Ask for concrete examples

• In longer interviews, summarize points that were mentioned and ask the participant to correct or add points
thoughts on interview questions

- **Content-less**
  
  “When you saw the visualization, what did you do?”

- **Clarifications on vague language**
  
  “You mentioned the visualization was really “fun” – what was “fun” about it?”

- **Examples**
  
  “You mentioned you have used this visualization as part of your work? Can you describe the last time you have used it?”

  “Was this a typical situation?”

- **Comparative**
  
  “How would you describe Vis A and Vis B in comparison?”
individual vs. group interviews

• Group interviews
  – Essential for collaborative/shared experiences
  – Can put participants at ease
  – Can trigger richer view points and discussions
  ➔ Influence of social dynamics within the group

• Mixed approaches
  – First individual, then group interview
data collection & analysis

- Full audio recording (if possible)
- Video recordings (often useful)
- Questionnaires
  
  For straight-forward questions that can be “outsourced”

- Full word-for-word transcriptions are a **MUST**
  - Know thy data!
  - Direct quotes are your evidence!

- Open coding for emerging themes
  - Thematic analysis
  - Collaborative coding if possible