ADMINISTRATIVIA

• Team formation now done – see me today if you think otherwise
• MSI release on Canvas on Friday evening – average 71.5
  – Low, but consistent with previous years
• MSII was released in works
  – Blog update #1 was due this morning
  – Report and blog update #2 due two weeks from today
  – Example MSII from prev. year may be posted to Piazza.
• TCPS due this week!
  Submit via Canvas by whichever is earlier:
  • Friday @ 10am
  • OR before you start running subjects

FIELD STUDIES III - LEARNING GOALS

• Interaction analysis (+ activity)
• Using video for data collection

  • will consider some of the discussion questions for the Porcheron et al. paper throughout

RECALL: DATA ANALYSIS

• circulate notes and transcriptions among team
• hold video analysis sessions
• identify patterns: in behaviour, events, artifacts, within and across individuals
• common techniques:
  – coding data
  – affinity diagrams
• triangulate data where possible
  – Porcheron et al: examples of how is data triangulated?
RECALL: CODING DATA

• Coding: technique where you label chunks of data to describe what you see happening.
• can code many kinds of data, e.g.
  – text in field notes and transcripts
  – events or sections of video
• goal is often to identify themes, categories, patterns in behaviour, artifacts, events, etc.
• affinity diagramming often used to look for commonalities
• open coding: themes, categories, etc. are ‘discovered’ while you are going through data
• closed coding: you know what themes and categories you want to look for examples of before going through data

USING VIDEO FOR DATA COLLECTION

WHY VIDEO?

• Porcheron et al.: what was the benefit of using video data and interaction analysis for this research?
  – what might not have been found from interviews or in-person observations alone?

WHY VIDEO?

pros of video:
  – data about what actually happened, rather than accounts of what happened (not subject to secondary interpretation)
  – relatively consistent bias
  – permanent primary record rich in detail – repeated viewings can uncover patterns not seen initially
  – capture complex interaction data in a way that would be impossible for a single observer

cons of video:
  – can be time-consuming and labour intensive – degree depends on transcription intensions

more detail Jordan & Henderson reading, Section 3...
LIMITATIONS TO VIDEO

• transformation of objective reality, rather than objective reality itself
  – limits of the camera operator: deciding what to capture (can mitigate through multiple cameras in permanent positions, but results in more data to analyze!)
  – limits of the technology: more restricted than human sensory system

• (perception) subjects adjust behaviour
  – in reality, subjects habituate very quickly, especially when operator not present

more detail Jordan & Henderson reading, Sections 4 - 5 ...

RANGE OF USE

• in the field:
  – often used as the primary data collection
  – observational notes may be taken as well

• in the lab:
  – can be primary, but more commonly secondary
  – as secondary, researchers want a backup to allow exploration of isolated/selected interaction segments (useful if coded and timestamped in an observation sheet for cross referencing)

key point: the more qualitative in nature the study, the greater the likelihood that video should be used

STANDARD USABILITY LAB SETUP

INTERACTION ANALYSIS

• an approach to analyzing video that involves some ‘coding’
  – described in more detail in Jordan and Henderson reading
  – is it intended to be open? or closed? in its approach to coding?

• analysis generally collaborative, done in groups
  – benefits of collaborative viewing/analysis? (sec. 2.3)

• uses analytic foci as way to identify things that are commonly useful to look for
  – but not meant to be strict coding categories
**Analytic Foci**

- Summary provided as a worksheet
  - Detailed in Jordan and Henderson, Sec. 6
- Porcheron et al.: What are some examples of **analytic foci** that likely guided the authors in their interaction analysis?

**Activity – Video Analysis**

- Video here: [https://youtu.be/Jirm3sSUZ](https://youtu.be/Jirm3sSUZ)
  
  **Step 1:** Interaction analysis activity (15 min)
  
  **Step 2:** Affinity diagram activity (15 min)
  
  **END:** Groups present most interesting observation (10 min)
  
  Discussion about merits/weaknesses of interaction analysis
  
  **Step 3:** Design Brainstorm *(If Time)*

**Activity – Things to Consider**

If you’re feeling stuck, consider some of these questions:

- How is ownership established in this workspace?
- Do teammates ask for help? How do they do so? When do they do so? How do others respond?
- How do the participants go about solving this puzzle? Piece-wise? What is the strategy they adopt?
- How does the dialogue affect the puzzle solving? Does it help?
- How are pieces placed on the table?
- How are gestures used in this task?
- How well do these people know one another? How does it affect the way the task proceeds?

**Discussion Questions to Consider**

- What happens when there are hundreds of hours of video? How do you approach analyzing that data?
- How do preconceived notions play a role in this kind of analysis?
- Could you do this kind of thing without video?
  
  - What /could/ you do without video?
- What other questions do you have now that you have seen the video a few times?
NEXT TIME

• Lecture will cover:
  — intro to experiments

• prep posted by Thursday
  — one reading + Stage I of a tutorial *(allow more time)*
    • both evaluated with a quiz; no open-ended questions this week
  — many of the statistical concepts in Newman & Lamming
    should be review from stats prereq