ADMINISTRATIVIA

• Sorry that I couldn’t post these slides last night
  – Tried several times, but remote.ugrad.cs.ubc.ca was down!
  – Have been in meetings all morning

ADMINISTRATIVIA (CONT’D)

• Team formation now done – see me today if you think otherwise
• MSI release on Canvas on weekend – average 75.5 (min 61; max 89)
  – Higher than 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 previous year will be posted to Piazza.

ADMINISTRATIVIA (CONT’D 2)

• Workshop
  – Get TA feedback on your field study design, focal points, etc.)
  – Get TA approval on your ethics documents (e.g., call for participation, consent form, interview script)
    • Cannot start data collection until you have approval
  – Use time to collect data for Prep W05
• TCPS due this week!
  Submit via Canvas by whichever is earlier:
    • Friday @ 10am
    • OR before you start running subjects
FIELD STUDIES III - LEARNING GOALS

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

We 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? (worksheet a-c)

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
- What coding was used in Porcheron?

WHY VIDEO?

- Porcheron et al.: what was the benefit of using video data and interaction analysis for this research? (worksheet d)
  - what might not have been found from 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

CLASSIC 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? *(worksheet e)*

**Activity – Video Analysis (~45min)**

video here: [https://youtu.be/Jirm3sS-UZI](https://youtu.be/Jirm3sS-UZI)

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