Methodological fit and self-reporting

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Some content adapted from Bilge Mutlu, Vibha Sazawal,
Administrative

• Homework 1 due Thursday
• Schedule a little bit in flux
  – Readings may appear intermittently
Today’s class

• Methodological spectrum and fit
• Self-reporting:
  – Interviews and surveys
Choosing a method

• We want:
  – Generalizability
  – Precision
  – Realism / external validity beyond generality

• In general can’t have all of these
Strategy push-pull

• Surveys, field studies, interviews, lab experiments, formal theory
• Generalizability max for repr. survey/formal theory
• Realism max for field
• Precision max for experiments
• Theoretical vs. experimental
• Field vs. self-reporting
• Obtrusive vs. unobtrusive

(Adapted from Runkel/McGrath)
You can’t have everything

• Think through fit and limitations carefully before starting!

• Describe method and limits clearly in paper
• “The key to good research lies not in choosing the right method, but rather in asking the right question and picking the most powerful method for answering that particular question.”

– Bouchard, 1976
Choosing a method / Assessing fit

• Take into account:
  – Research question
  – Prior work
  – Desired contribution

• Choose research design that is consistent
Thinking about fit: Early

Current state of the art
• New questions
• New connections from different fields/ideas

Your contribution
• Suggestive theory
• Further issues to explore
Thinking about fit: Intermediate

Current state of the art
• Provisional explanations/relationships exist
• Some measurements exist
• Testable hypotheses exist

Your contribution
• Stronger theory
• Integrate existing ideas
Thinking about fit: Mature

Current state of the art
• Well developed theory
• Validated measures / approaches
• Studied over time with increasing precision
• Points of broad agreement

Your contribution
• Support existing theory (not too exciting?)
• Add specificity
• Add new boundaries / exceptions
Research design: Early

- **RQs**: can be open-ended

- **Data collection**: often qualitative, will require significant interpretation/analysis
  - Interviews; observations; field measurements
  - May propose new constructs/measures

- **Data analysis**:
  - Goal: identify patterns
  - Thematic coding
Research design: Intermediate

• **RQs:** proposed relationships; concrete hypotheses

• **Data collection:** often both quant/qual
  – Interviews; observations; field measurements; surveys; experiments
  – Validate constructs/measures

• **Data analysis:**
  – Goal: test new propositions/constructs
  – Content analysis; (exploratory) statistics;
Research design: Mature

- **RQs**: extremely concrete; test/adapt existing theory/relationships

- **Data collection**: mostly quantitative
  - Focused surveys, interviews, observations; specific field measurements tied to existing theory; minimal interpretation
  - Rely primarily on existing constructs/measures

- **Data analysis**:
  - Goal: formal hypothesis test; find limits of theory
  - Standard, inferential stats
What makes a good research Q?

• Narrow topic to manageable size
• Theoretical/practical significance
• Viable / answerable
• Concrete! Ability to know when answered
What can go wrong?

• Early: fishing expedition
  – Get things by chance / that aren’t important
  – Quantitative analysis on data that suggested theory

• Intermediate
  – New constructs/measures not entirely validated
  – Support for new theory too provisional

• Mature
  – Reinventing wheel
  – Uneven evidence quality
Interviews and surveys

SELF-REPORTED DATA
What can we measure?

- Facts: characteristics, frequency of behaviors
- Attitudes, preferences
Why an interview?

- Rich data (from fewer people)
- Good for exploration (early)
  - Helps identify themes, gain new perspectives
- Usually cannot generalize quantitatively
- Potential for extra bias (conducting, analyzing)
- Structured vs. semi-structured
Why a survey?

• A little bit of data (each) from a lot of people
• Quantitative results
  – Better standardization
  – Generalizable if done correctly
• Quick, easy, unobtrusive, relatively cheap
• Shallow data
  – Multiple choice, short free-response
Biases in self-reporting data

• Social desirability
  – Also non-response to sensitive Qs.
• Acquiescence bias (want to say yes)
• Demand characteristics
• Ordering/priming
• Hawthorne effect? (modify when being observed)
Countering biases

• Social desirability:
  – Take interviewer out of loop
  – Give cues for non-judgment
  – List experiments

• Acquiescence:
  – Flip questions around
  – Use comparisons rather than absolutes
Countering biases, ctd.

• Demand characteristics
  – Conceal goal of study
  – Disclaim ownership of thing being evaluated
  – Use comparisons rather than absolute data

• Ordering/priming
  – Randomization (questions, response choices!)
  – Care in ordering/priming
  – From general to particular, easy to hard