RESEARCH METHODS AND THE LIBRARY PROFESSIONAL

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WHERE I’M COMING FROM

• All sorts of academic library jobs at all sorts of places
• No real methodological training before doctoral level
• In retrospect...
• 2013 = Second time the class had been offered in its current form

• Students tended to have quite low interest in taking it
  • Hard to see why, as a future librarian or archivist, they might ever have a use for traditional research methods
  • Plus, you know, methods. Boring.

• However...
The course centers around each student assembling a proposal for some piece of research related to their professional interests.

At least three students had already begun to implement their proposed studies by the time the class ended in April.

Several others developed feasible - and even possibly fundable - proposals.

Students noted in the evaluations that the course actually seemed much more applicable looking back than it had seemed at the beginning of the term (and also more fun...).
AND YOU?

• Did you have any kind of research methods training in your college or grad school coursework?

• Have you participated in conducting research in your professional life?
  • What kind(s)?
  • What motivated you to do it?
  • How have you come away feeling about the experience(s)?
TODAY’S TALK

• The 10,000-foot view of six data collection methods one might use to inform library practice
  • What they are
  • What they’re good for
  • What they’re not so good for
• Discussion:
  • Where do these methods fit into library professional life? (Do they?)
  • Should libraries be building internal expertise or hiring external consultants? (Both? Neither?)
  • Thoughts on the inclusion of methodology in MLIS/MSI curricula?

Intro | Observation | Interviews | Focus Groups | Unobtrusive Measures | Surveys | Experiments | Discussion
A BIT OF CONTEXT...

Research Question(s) → Research Design → (Human Subjects Review) → Data Collection → Data Analysis → Writing and Publication

You Are Here

Intro | Observation | Interviews | Focus Groups | Unobtrusive Measures | Surveys | Experiments | Discussion

Monday, July 22, 13
IT’S NEVER PERFECT.

What you’re looking for

What you find

Life is full of surprises
DATA COLLECTION METHODS: A QUICK AND DIRTY OVERVIEW
ON THE AGENDA

- Observation
- Interviews
- Focus Groups
- Unobtrusive Measures
- Surveys
- Experiments

(but ideally not all research)
OBSERVATION

Working to understand the social dynamics of a particular setting by observing and recording what goes on there over an extended period of time.

<table>
<thead>
<tr>
<th>Covert participant observation</th>
<th>Concealed recording equipment or concealed observer</th>
<th>Visible recording equipment made unobtrusive</th>
<th>Participant observation, recording done out of sight of observed</th>
<th>Participant observation, recording done in sight of observed</th>
<th>Non-participant observer</th>
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Continuum of Obtrusiveness
OBSERVATION: WHAT IS IT GOOD FOR?

• Nuanced understanding of behavior within a particular setting
• Situations where flexibility in approach is useful (e.g. in dealing with the unexpected)
• Problems or settings about which extremely little is known
• Situations in which individuals’ self-report may not match their actual behavior
• Plus one practicality...
OBSERVATION: WHAT IS IT LESS GOOD FOR?

• Understanding motivations (unlike interviews)
• Seeing beyond the immediate present (unlike interviews, historical research, predictive modeling)
• Comparisons of highly pre-specified characteristics or behaviors across large populations (unlike surveys)
• Producing broadly generalizable findings (unlike some surveys and experiments)
OBSERVATION: EXAMPLE

- Curry (2005)
  - Examined quality of reference services provided by Vancouver area libraries to GBLT youth
  - Covert, unobtrusive observation; element of deception
INTERVIEWS

• Asking direct questions of individuals in order to gain insight into their experiences, motivations, or feelings

• Types of Interview:
  • Informal conversation (“Unstructured interview”)
  • General interview guide (“Semi-structured interview”)
  • Standardized open-ended interview
INTERVIEWS: WHAT ARE THEY GOOD FOR?

• When you want to find something out that you cannot directly observe
  • E.g. feelings, thoughts, intentions, past behavior, activities in private settings, individual sense-making processes
• To find out what is on someone else’s mind; to gather their stories
  • Underlying assumption: the perspective of others is meaningful, knowable, and able to be made explicit

(Patton, 341)
INTERVIEWS: WHAT ARE THEY LESS GOOD FOR?

• Understanding social or physical context (unlike observation)

• Comparisons of highly pre-specified characteristics or behaviors across large populations (unlike surveys)

• Producing broadly generalizable findings (unlike some surveys and experiments)
INTERVIEWS: EXAMPLE

• Hara et al (2003)
  • Semi-structured interviews used to study collaboration in a multidisciplinary, geographically dispersed research center
  • Study participants included faculty, postdocs, and students
  • Interviews explored reasons for imbalances in collaborative relationships found through earlier sociometric analysis of the research group, by collecting participants’ general impressions of and stories about collaboration
FOCUS GROUPS

• Researcher asks direct questions of a group of people, all at once
  • Not just a group interview
  • Serve different purposes, and have different pros and cons
• Generally proceed from broad to narrow Q’s
• Relatively homogeneous demographics, if possible
• Video recording = near-essential
FOCUS GROUPS: WHAT ARE THEY GOOD FOR?

- Obtaining general background information about a topic of interest
- Stimulating new ideas and creative concepts
- Diagnosing the potential for problems with a new program, service or product
- Generating impressions of products, programs, services, institutions or other objects of interest
- Learning how respondents talk about the phenomenon of interest
FOCUS GROUPS: WHAT ARE THEY LESS GOOD FOR?

- Highly sensitive or personal information (unlike any method where confidentiality can be ensured)
- Questions where additional observers are likely to have a significant effect on responses (unlike any method with ≤1 observer present)
- Questions requiring in-depth, detailed information from each informant (unlike interviews, some surveys)
- Understanding social or physical context (unlike observation)
- Comparisons of highly pre-specified characteristics or behaviors across large populations (unlike surveys)
- Producing broadly generalizable findings (unlike some surveys and experiments)
FOCUS GROUPS: EXAMPLE

• Shoaf (2003)
  • Used focus groups to evaluate the performance of an academic library (at Brown U.)
  • No library or university staff with focus group expertise, so hired an outside consultant
  • Article reports on lessons learned regarding the procedures and strategies involved in running a focus group, and assesses the decision to pay for outside help (they came out in favor of it in this case)
UNOBTRUSIVE MEASURES

- Using data that already exists to answer a new question
- For example:
  - Internal library data
    - Circulation, Gate, Collections
  - Web analytics
  - Internal documents
  - Archival materials
  - Existing datasets and databases
- Can take a lot of work to convert data into re-usable form
UNOBTUSIVE MEASURES: WHAT ARE THEY GOOD FOR?

• Non-reactive data can be easier to gather (no pesky people!)
• Can provide longitudinal perspective beyond the time scope of the research itself
• There is so, so much of this kind of data in libraries
• Differently biased than other measures
PROBLEMS WITH UNOBTRUSIVE MEASURES

• Data = human construction
• Original purpose affects interpretation
  • Their “signal” might be your “noise”
• Not everything important is documented; not everything documented is kept; not everything kept is accurate
• Mixing sources = risky
• Ethics, privacy, etc.
UNOBTRUSIVE MEASURES: EXAMPLE

• Jones & Courant (forthcoming, 2013)
  • Testing unsupported (yet pervasive) claim that university presses are in trouble because university libraries used to buy all their books, and now they don’t
  • Data from:
    • Paper AAUP and ACRL Directories: library expenditures, press output, and basis for sampling both presses and libraries
    • WorldCat: sample library holdings of books from sample university presses, 1980-2010
  • Findings: It’s not true!
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SURVEYS

• Obtaining information from a sample of individuals through their responses to a set list of questions

• Quite possibly the most common type of research done in library settings

• Can be done in person, by mail, over the phone, or online

• Sampling strategy and sample size are crucial to validity and generalizability
SURVEYS: WHAT ARE THEY GOOD FOR?

- Many different kinds of questions, on many different topics
- Research questions that call for a relatively limited amount of information to be collected from a relatively large number of individuals
- Situations with significant resource constraints (interviews, observations, etc. can get very expensive)
- Desire to generalize results beyond the immediate setting or sample population

(Schutt, 256-260)
SURVEYS: WHAT ARE THEY LESS GOOD FOR?

- Demonstrating causation (unlike experiments)
- Capturing nonverbal cues (unlike interviews and observations)
- Understanding social or physical context (unlike observations)
- Questions requiring in-depth, detailed information from each informant (unlike interviews) - with some exceptions
- Very common method; also very commonly poorly executed
SURVEYS: EXAMPLE

  - Objective: to collect descriptive information on the consumer market for public library services and Internet services
  - Telephone survey of 3,097 English- and Spanish-speaking adults in the continental U.S.
  - Survey instrument informed by prior focus groups conducted by same researchers, as well as other similar surveys conducted by others; 3 pilot tests run to refine the instrument
  - Findings: use of library and use of the internet are complementary, not necessarily competing; however, the data also showed shifting consumer preferences between the two
EXPERIMENTS

• Involve manipulation of an independent variable
• Typical purpose = to demonstrate covariation between two variables
• Ideally involve relatively tight controls, especially regarding:
  • Sampling & group assignment
  • Extraneous variables & rival explanations
WITHIN- VS. BETWEEN-SUBJECTS DESIGNS

• Within-Subjects
  • Same subject sample utilized throughout
  • Complete control over variation among subjects (since subjects do not vary), but more chance of muddling the data due to subjects dropping out, learning, hypothesis guessing, etc.

• Between-Subjects
  • Multiple sample groups compared against one another (e.g. designs involving experimental vs. control group)
  • Less chance of subjects “catching on,” but higher error rates due to variability among human beings
  • Many designs combine the two
EXPERIMENTS: STRENGTHS & WEAKNESSES

• Strengths:
  • Control
  • Ability to establish causality (most important by far)

• Weaknesses
  • Artificiality
  • Often lacking in external validity
FIELD EXPERIMENTS

• Take place in an existing environment, with independent variable manipulated by researcher

• Less artificial than lab experiments

• Example: Bertrand & Mullainathan (2004)
  • Similar resumes sent to different companies with distinctly black or white names
  • Observe callback rates for different races

• Another example: A/B testing
EXPERIMENTS: EXAMPLE

• Cheng (2003)
  • Testing whether a particular library workshop had a positive effect on clinician’s success in using electronic resources
  • Between-subjects design, random assignment
  • Questionnaire measuring outcomes administered to experimental group after workshop, and to control group before
YOUR THOUGHTS?

• Where do these methods fit into library professional life? (do they?)
• Should libraries be building internal expertise or hiring external consultants? (Both? Neither?)
• Thoughts on the inclusion of methodology in MLIS/MSI curricula?
• Other questions, comments, advice for others?
THANKS!

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