Getting the Right Fit: Tailoring Assessment Strategies for Your Library – Methods & Research Design

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Review: Steps in Assessment Process

- Why? Identify purpose
- Who? Identify team
- How? Choose model/approach/method
- Commit
- Training/planning
Review: Assessment Tools

- Survey Research
- Interviews
- Focus Group Interviews

- Structured Observations
- Ethnographic Research
- Analytics
Outcomes: Part 1
Introduction Exercise
Survey Research:
“…to look at or to see over or beyond…allows one to generalize from a smaller group to a larger group”

(Connaway & Powell, 2010, p. 107)
Survey Research: Advantages

- Explores many aspects of service
- Demographic information
- Controlled sampling
- High response rates possible
- Data reflect characteristics & opinions of respondents
- Cost effective
- Can be self-administered
- Survey large numbers
- Online surveys (e.g., Survey Monkey) provide statistical analysis
Survey Research: Disadvantages

- Produces a snapshot of situation
- May be time consuming to analyze & interpret results
- Produces self-reported data
- Data lack depth of interviewing
- High return rate can be difficult
Checklist for Designing Surveys

Good questions are:
• Related to problem at hand
  • Multiple choice
  • Open-ended
  • Likert Scale
• Clear, unambiguous, precise
• Able to be answered by subjects
• Not double-barreled ("and")
• Short
• Not Negative
• Unbiased

(Janes, 1999)
Design Issues

- Paper or Online (e.g., Survey Monkey)
- Consider order of questions
- Demographic questions first
- Instructions
  - Be specific
  - Introduce sections
- Keep it simple
- Pre-test!
Survey Research: Interpreting Results

- Objectively analyze all data
- Interpret results with appropriate level of precision
- Express proper degree of caution about conclusions
- Use data as input in outcome measures
- Consider longitudinal study, compare results over time
- Qualitative data requires special attention
Example: Seeking Synchronicity Formatting Objectives

- Review the literature
- Focus group interviews with VRS librarians, users & non-users
- Analyze VR transcripts
- VRS librarian, user, & non-user interviews & online surveys

(Connaway & Radford, 2011)
Example: Critical Incident Technique (CIT)

- Online surveys with Critical Incident Technique
  - Flanagan (1954)
  - Qualitative technique
  - Focuses on most memorable event/experience
  - Allows categories or themes to emerge rather than be imposed

(Flanagan, 1954)
• Think about one experience using VRS in which you felt achieved (or did not achieve) a positive result
  
  a. Please describe the circumstances and nature of your question.
  
  b. Describe why you felt the encounter was successful (or unsuccessful).
  
  c. Did the chat format help your experience to be successful (or unsuccessful)? If yes, how?
Think about one experience in which you felt you achieved (or did not achieve) a positive result after seeking library reference services in any format.

a. Think about one experience in which you felt you did (or did not) achieve a positive result after seeking library reference services in any format.

b. Describe each interaction.

c. Identify the factors that made these interactions positive or negative.
“The librarian threw in a cordial sign-off and encouraged me to pursue the reading. It was like talking to a friendly librarian in person.”

(VRS User Online Survey)
Interviews: Conversation involving two or more people guided by a predetermined purpose.
Types of Interviews

- Structured
- Semi-structured
- Formats:
  - Individual
    - Face-to-face
    - Telephone
    - Skype
  - Focus Group Interviews
Key Components

- Good Questions
- Good Listening Skills
- Good Interpersonal Skills
Types of Questions

• OPEN
  • “What is it like when you visit the library?”

• DIRECTIVE
  • “What happened when you asked for help at the reference desk?”

• REFLECTIVE
  • “It sounds like you had trouble with the mobile app?”

• CLOSED
  • “Have I covered everything you wanted to say?”
Neutral, Leading, & Loaded Questions

• **NEUTRAL**
  
  “What are your impressions of Brandeis University Libraries?”

• **LEADING**
  
  “You don’t like the librarians at Brandeis University Libraries, do you?”

• **LOADED**
  
  “How many other unreasonable requests have you made to our librarians?”
Interviews: Advantages

• Face-2-face interaction
• In-depth information
• Understand experiences & meanings
• Highlight individual’s voice
• Preliminary information to “triangulate”
• Control sampling
  • Include underrepresented groups
• Greater range of topics
Interviews: Disadvantages

• Time Factors
  • Varies by # & depth
  • Staff intensive
• Cost Factors
  • Higher the #, higher the cost
• Additional Factors
  • Self-reported data
  • Errors in note taking possible
Conducting Interviews

- Obtain permission to use information
  - Report and/or publication
- Create safe climate, assure confidentiality
- Be prepared, flexible, & stay on task
- Listen & know when to probe
- Accept that some interviews won’t go well
- Thank them!
1. Describe the things you enjoy doing with technology and the web each week.

2. Think of the ways you have used technology and the web for your studies. Describe a typical week.

3. Think about the next stage of your education. Tell me what you think this will be like.
4. Think of a time when you had a situation where you needed answers or solutions and you did a quick search and made do with it. You knew there were other sources but you decided not to use them. Please include sources such as friends, family, teachers, coaches, etc.

5. Have there been times when you were told to use a library or virtual learning environment (or learning platform), and used other source(s) instead?

6. If you had a magic wand, what would your ideal way of getting information be? How would you go about using the systems and services? When? Where? How?

(Connaway & Radford, 2005-2007)
(Dervin, Connaway, & Prabha, 2003-2005)
Interviewing Exercise
Focus Group Interviews: “...interview of a group of 8 to 12 people representing some target group and centered on a single topic.”

(Zweizig, Johnson, Robbins, & Besant, 1996)
Focus Group Interviews: Advantages

- Advantages of individual interviews plus...
- Take less time.
- Create synergy
  - Comments stimulate others
  - Unexpected insight
- Access needs of underserved or underrepresented groups
Focus Group Interviews: Disadvantages

- Planning & administrative time
- Experienced moderator required
  - See handout
- Participants may be too quiet or too outspoken
- Participants may not have sufficient time
- Analysis, summarization & interpretation of responses difficult
Conducting Focus Group Interviews

- Obtain permission to use information & if taping
  - Report and/or publication
- Enlist note-taker or, if recording, check equipment, bring back-up
- Begin by creating safe climate
Conducting Focus Group Interviews

• Help quiet people talk, limit talkative people
• Design well constructed guide, including:
  • Introduction (purpose, ground rules)
  • Small set of questions (4 or 5 tops!)
  • Relevant major/probe questions
• Effective listening essential
WorldCat.org Study Recruitment

- Difficult
  - Little data of user-base
  - Participants across 3 continents
  - Hard-to-reach populations
    - Historians
    - Antiquarian booksellers
  - Non-probabilistic methods
    - Convenience sampling
    - Snowball sampling

(Connaway & Wakeling, 2012)
Example: WorldCat.org Focus Group Interview Questions

Tell us about your experiences with WorldCat.org

PURPOSE

Broad introductory question to reveal the extent to which users have engaged with WorldCat.org, and the information-seeking contexts within which they use the system.

(Connaway & Powell, 2010, p. 184)
If you had a magic wand, what would your ideal WorldCat.org provide?

PURPOSE

Encourages participants to discuss potential improvements to WorldCat.org.
Listening Behaviors Exercise
Individual Interviews & Focus Group Interviews: Analysis

- Review notes/transcribe tapes
- Ways to analyze:
  - Code data into pre-determined categories
  - Use data to identify categories
  - Use data for summary statements “capture the essence”
- Compare all groups
- Compile & summarize
- Look for trends/patterns
- Don’t overgeneralize from results
Individual Interviews & Focus Group Interviews: Reporting Results

• Parts of Report
  • List of issues
  • Explain how data collected/analyzed
  • Summary of findings: What was said on each issue?
  • Sample quotes (anonymous)
  • Interviewer’s impressions
• Recommendations:
  • Short term (low hanging fruit)
  • Long term
Individual Interviews & Focus Group Interviews: Limitations

- Difficult to generalize
- May not be representative
- Analyzes perceptions, not facts
- Subjective analysis (reliability)
- Raw data could be misleading

Results can be limited by:

- Poor/inexperienced moderator/interviewer
- Poorly constructed discussion guide/interview questions

Compensate by combining methods.
Structured observations:
Systematic description focusing on designated aspects of behavior to test causal hypotheses.

(Connaway & Powell, 2010)
Structured Observations: A Guide

- Develop observational categories
  - Define appropriate, measurable acts
  - Establish time length of observation
  - Anticipate patterns of phenomena
  - Decide on frame of reference

(Connaway & Powell, 2010), p.182
Recording Observations

- Rating scales
- “All-or-none” categories
- Checklists of categories
- Audio and/or video recording
  - Useful for overall view of behavior
  - Analyze closely later

(Connaway & Powell, 2010, p. 182)
Increasing Observation Reliability

- Develop definitions of behavior
- Train observers
- Avoid observer bias
  - Take behaviors at face value

(Connaway & Powell, 2010, p. 182)
Ethnographic research: rich description

(Connaway & Powell, 2010, p. 262)
Ethnographic research

• Incredibly detailed data
• Time consuming
  • Establishing rapport
  • Selecting research participants
  • Transcribing observations & conversations
• Keeping diaries

(Connaway & Powell, 2010, p. 175)
(Khoo, Rozaklis, & Hall, 2012, p. 83)
Participant/Immersive Observations

- Move into the setting as deeply as possible
- Disturb participants as little as possible
- Participant observation
  - Open, direct interaction and observation as part of the group

(Connaway & Powell, 2010, p. 218)
Continuum of participation

None

Passive

Observation-focused

Moderate membership

Active membership

Complete membership

Complete participation

(Connaway & Powell, 2010, p. 218)
Participant / Immersive Observations

- Unobtrusive observation
  - Disguised
  - Field-based
  - Indirect
  - Reactive
- Obtrusive observation
  - Build rapport with participants
    - Informal for conversation
    - Formal to reinforce nonjudgmental interaction

(Connaway & Powell, 2010, p. 218)
• Elicitation tool
  • Jog interviewees’ memory of detail about a person, place or event
• Ask participants to take a short set of photos
  • List of things you want them to photograph
• Conduct follow-up interviews for context of photo

(THE ERIAL Project, 2011, p.13)
(Foster & Gibbons, 2007, p. 40)
Diaries

- Ethnographic data collection technique
- Get people to describe what has happened
- Center on defined events or moments

(Geertz, 1973)
(Connaway & Powell, 2010)
USU7 Diary May 2011

Good Evening Dr. Lanclos,

Here is my journal for this month:

I'm constantly doing quick researches on random things that come up through-out the day. Now that I have an itouch, anytime I have a question or something my friend's want to know, I like to look up the answer through the internet.
1. My friends and I wanted to know the history of bloody Mary. I searched "the history of bloody Mary" in the google search box and the first website was wikipedia. As much as they say not to use it, wikipedia is always the first website, so of course I'm going to go there since it makes researching so much easier. When I got to the page, it referenced the drink more than the history and origin itself, so it didn't help much. But I decided that with the brief history it gave me, it was enough.

2. Most of the time when I'm searching things up that is not academically, I don't go too much in depth with the results of the search. The only time I have lately is when I was looking for a wedding venue in Florida that was near the beach. It started out complicated because I wanted a place near Tampa, but nothing would come up. So I had to search for botanical gardens on the west coast of Florida that was a good distance from the beach, and it was very hard. Even though I specifically searched up botanical gardens, random gardens would come up and I had to go to each website to see which ones allowed weddings there. It was hard to find something specific that met my criteria but after 30 minutes, I finally found one.
Analysis:
“…summarize observations or data in such a manner that they provide answers to the hypothesis or research questions”

(Connaway & Powell, 2010, p. 262)
Analyzing Data

• Two approaches
  • Ethnographic summary
    • Qualitative
    • Direct quotations
    • “Thick description” (Geertz, 1973, p.6)
  • Content analysis approach
    • Numerical descriptions of data
    • Tallying of mentions of specific factors
• Can be combined

(Connaway & Powell, 2010, p.175)
(Connaway, Johnson, & Searing, 1997, p. 409)
(Geertz, 1973, p.6)
I. Place
   A. Internet
      1. Search engine
         a. Google
         b. Yahoo
      2. Social Media
         a. FaceBook
         b. Twitter
         c. You Tube
         d. Flickr/image sharing
         e. Blogging
   B. Library
      1. Academic
      2. Public
      3. School (K-12)
   C. Home
   D. School, classroom, computer lab
   E. Other

(White & Connaway, 2011-2012)
NVivo 10

- Qualitative research software
- Upload documents, PDFs, & videos
- Create nodes & code transcripts
- Merge files
- Queries
- Reports
- Models

(QSR International, 2011)
(White & Connaway, 2011-2012)
Example: Direct Quotations

“I’m like a taboo I guess with all teachers, they just all say — you know, when they explain the paper they always say, ‘Don’t use Wikipedia.’”

(USU7, Female, Age 19)
Outcomes: Part 2
Concluding Exercise
Research Design:
Clear and concise description of what will be done and how it will be done

(Connaway & Powell, 2010, p. 311)
Mixed Methods & Triangulation

• Triangulation
  • Multiple methods of data collection (e.g., interviews (individual & group), observation, survey)

• Benefits of Mixed Methods
  • Convergence, corroboration, correspondence, complementarity of results from 1 method with results from another
  • Development - Use results from 1 method to help develop or inform another
  • Initiation - Recasting of questions or results from 1 method to another
  • Expansion - Extend breadth & range of enquiry by using different methods
Example: Digital Visitors and Residents Triangulation of Data

• Several methods:
  • Semi-structured interviews (qualitative)
  • Diaries (qualitative)
  • Online survey (quantitative)
• Enables triangulation of data

(Connaway, Lanclos, White, Le Cornu, & Hood, 2012)
(White & Connaway, 2011-2012)
Key Questions for Mixed Methods

- Use methods simultaneously or sequentially?
- Which method, if any, has priority? Why?
- Why mixing? E.g., triangulation, explanation, or exploration?
- How do mixed methods impact data analysis?
  - Analyzed sequentially, integrated analysis, cross-method analysis?
Outcomes of Mixed Methods

- **Validity** – enhanced
- **Offset** - weaknesses & draw on strengths
- **Completeness** - more comprehensive account
- **Explanation** - one method helps explain findings of another.
- **Unexpected results** - surprising, intriguing, add to richness of findings
• Trying it on for size
• Making alterations
Assessment Exercise

1. Divide groups by interest
   • Collections (2 groups)
   • Instruction
   • User Services
   • User Space
2. Choose note taker to write on flip charts
3. Develop 3 research questions (RQ) on topic (perhaps based on the Outcomes Exercise)
4. Design small pilot study to address one RQ. Should include
   • Method
   • Sampling (# & characteristics of participants)
   • How it fits the RQ
5. Report out
Use tools & research design to customize project to fit your assessment needs
Discussion & Questions

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References


Connaway, L. S., & Wakeling, S. (2012). To use or not to use Worldcat.org: An international perspective from different user groups. OCLC Internal Report.


References


References


Recommended Readings


Besara, R. (2013, June 4). See results: Tips and tools for visualizing library data. Presented at the *Qualitative and Quantitative Methods in Libraries International Conference (QQML 2013)*.


Connaway, L. S., & Wakeling, S. (2012). To use or not to use Worldcat.org: An international perspective from different user groups. OCLC Internal Report.


Maciel, M. L. (2013, June 4). Identifying our customers’ needs and expectations: A data driven approach and analysis through the use of LibQUAL+™ (using five years’ data from LibQUAL+™ in Europe). Presented at the *Qualitative and Quantitative Methods in Libraries International Conference (QQML 2013)*.


Taylor, M. (2013, June 4). Academic library use and undergraduate engagement and persistence at a large public research university. Presented at the *Qualitative and Quantitative Methods in Libraries International Conference (QQML 2013).*