Surveys: Why, When and How

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Pamela Bagley
Session Outcomes

• Articulate appropriate uses for surveys
• Write effective survey questions
• Construct an effective questionnaire
• Choose an appropriate sample in both type and size
• Boost survey response rate
• Choose an appropriate online survey tool
Survey Overview

• **What** do you want to know?
  – What are your assessment questions?
  – What are your goals: needs assessment, satisfaction, outcomes, etc.

• **Who** do you want to know it from?

• **How** are you going to use the data?

• **Why** use a survey?
Survey Overview

Why use a survey?
- Easy to gather data from a lot of people quickly
- Requires only limited resources
- Able to generalize

Surveys can be overused
Survey Administrative Methods

- **Interview**
  - In person
  - Phone

- **Paper**
  - In person
  - Mail

- **Online**
  - E-mail
  - Web link
Online Surveys

Strengths

– Inexpensive
– Rapid turnaround for data collection
– Data entry easy, if not automatic
Online Surveys

Weaknesses

– Need valid e-mail address
– Respondent needs access to computer
– Respondent needs to be computer literate
– Frequently overused
Consider analysis *prior* to survey development. It determines:

- Type of question to ask
  - Open-ended vs. close-ended
- How questions are asked
- Response options
- Response option formats
Writing Effective Questions

Fowler’s standards

- Consistent understanding
- Consistent administration format
- Respondents know what answer formats are acceptable and wanted
- Answerable question
- Everyone is willing to answer each question

Fowler, 1995 pp 2-3
Types of Questions

- Open-ended
- Close-ended
Open-Ended Question

1. What is the name of your current primary employer?

2. What was the most important thing you learned from this workshop?

3. Describe how well your questions were answered at your last doctor’s appointment?
Close-Ended Question with Ordered Response Categories

To what extent has your immediate supervisor demonstrated strong leadership qualities?

- All of the time
- Most of the time
- Some of the time
- Seldom
- Never
Which of the following attributes do you feel best describes your immediate supervisor?

- Leadership
- Innovation
- Team builder
- Communicator
Rank the following attributes according to how they best describe your immediate supervisor. Put “1” in the box next to the attribute that best describes your supervisor and so on, with “4” next to the attribute that least describes your supervisor.

- Leadership
- Innovation
- Team builder
- Communicator
Hybrid Question

To which hospital do you live closest?

- Mary Hitchcock Memorial Hospital
- Dartmouth Hitchcock Medical Center
- Mount Ascutney Hospital
- Other ________________
1. Which hospital or clinic do you prefer to attend?
   - Dartmouth Hitchcock Medical Center
   - Mary Hitchcock Memorial Hospital
   - Mount Ascutney Hospital

2. Please explain:
Writing Effective Questions

Open-ended versus Close-ended

- What information do you want?
  - Do you want a standardized response
- How will you analyze your data?
Writing Effective Questions

• Keep questions simple and specific
• Keep it short
• Use language everyone can understand
• Ask one question per question
• Have mutually exclusive and exhaustive response options

Dillman 2002, chapter 2
Writing Effective Questions

• Use precise quantifiers and time referents
• Don’t have respondents make unnecessary calculations
• Avoid double-negatives
• Avoid bias

Dillman 2007
Constructing the Survey

First question should
- Apply to everyone
- Easy to answer
- Interesting
- Connect the respondent to the survey purpose

Dillman, 2007
Construction the Survey

- Clearly identify the beginning of each question
- List answer options vertically
- Be consistent
  - Punctuation, verb tense, format, etc.
- Make navigation clear
- Place instructions at point of need
Sampling

Why sample?
- Cheaper
- Faster
- Just as valid, when done right
Types of Sampling

• Probability
  – Random sampling

• Non-probability
  – Convenience sampling
  – Purposive sampling
Sample Size

Appropriate sample size
- Population size
- Sampling error
- Time and money available
- Analyses
Sample Size

Rule of thumb

- 100 for descriptive study
- 50 for correlational study
- 30 for experimental study
(Frankel and Wallen, 2004, p. 109)

Sample size calculator
http://www.surveysystem.com/sscalc.htm
Pre-Testing

• Ensure that respondents read the questions as you intended
• Highlight poorly worded questions
• Ensure clear instructions
• Determine amount of time needed
Response Rates

- Preferred = 100%
- Typical = 25-30%

- Want responses to representative
  - Check by comparing demographics of respondents and non-respondents
Boosting Response Rates

High yield

• Multiple contacts (8-29%)
  – Pre-notice, invitation, 2 reminders, thank you

• Incentives (12-24%)
  – Should be pre-paid
  – If post-paid, should be enticing

Porter, 2004
Boosting Response Rates

Moderate yield
• Requests for help (18%)
• Salient survey (12-14%)
• Official sponsorship (9-14%)

Low yield
• Short length (5%)

Porter, 2004
Boosting Response Rate

Mixed yield
• Providing explicit deadlines
• Personalized correspondence

Unknown yield
• Confidentiality/anonymity

Porter, 2004
Human Subject Review

- Federal mandate
- “Human subjects research”
- Evaluation vs. generalizable research
- Committee for the Protection of Human Subjects (CPHS)
  - Exempt
  - Expedited
  - Full Review

- http://www.dartmouth.edu/~cphs
Ethical Evaluation

- Informed consent
- Voluntary participation
- No repercussions for non-participation
- Confidentiality
- Minimize risk
Online Survey Tools

- SurveyMonkey
- ZapSurvey
- Zoomerang
- QuestionPro
- SurveyGizmo
- ...

Dartmouth
Choosing a Tool

- Survey design
- Distributing the survey
- Analysis
- Cost
- Special needs
Welcome to a revolutionary tool.

Intelligent survey software for serious primates of all species. SurveyMonkey has a single purpose: to enable anyone to create professional online surveys quickly and easily. Find out what everyone is talking about.

Design Survey

Using just your web browser, create your survey with our intuitive survey editor. Select from over a dozen types of questions (single choice, multiple choice, rating scales, drop-down menus, and more...). Powerful options allow you to require answers to any question, control the flow with custom skip logic, and even randomize answer choices to eliminate bias. In addition, you have complete control over the colors and layout of your survey.

View Example Survey

Collect Responses

Tired of shuffling papers or poring over email responses? Simply cut and paste a link to your survey that you can post or print anywhere. Use our popup invitation generator to maximize your response rate, or use our automated email notification and list management tool to track your respondents. Collecting meaningful information has never been easier.

Analyze Results
## SurveyMonkey Features

From [www.surveymonkey.com](http://www.surveymonkey.com)

<table>
<thead>
<tr>
<th></th>
<th>Basic Subscription</th>
<th>Professional Subscription</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cost</strong></td>
<td>Free</td>
<td>$19.95/month or $200/year</td>
</tr>
<tr>
<td><strong>Account Limits</strong></td>
<td>10 Questions/survey 100 Responses/survey</td>
<td>Unlimited # surveys and questions 1000 Responses/month ($.05/response for additional responses over 1000)</td>
</tr>
</tbody>
</table>

### Professional Subscription Enhanced Features

- **Create Skip Logic (Conditional Logic)** - customize the path a respondent takes through your survey by adding logic, skipping non-applicable questions
- **Require Answers** - specify on a question by question basis which questions require an answer
- **Randomize Answer Choices** - randomize answer choices to eliminate "order bias"
SurveyMonkey Question Examples

Choice – One Answer (Vertical)

What is your favorite brand of peanut butter?
- Skippy
- Reese’s
- Peter Pan
- Jif
- Other (please specify)

Choice – One Answer (Horizontal)

What is your favorite brand of peanut butter?
- Skippy
- Reese’s
- Peter Pan
- Jif

Choice – One Answer (Menu)

What is your favorite brand of peanut butter?
- Skippy
- Reese’s
- Peter Pan
- Jif
- None - I hate it!

Choice – Multiple Answers (Vertical)

Which brands of peanut butter do you regularly buy?
- Skippy
- Reese’s
- Peter Pan
- Jif
- None - I hate it!
SurveyMonkey Workshop

Dartmouth Biomedical Libraries

General Information
- About the Libraries
- Annual Reports
- Directions
- Library Directory
- Library Hours
- New Acquisitions
- Newsletter: The Pulse
- Open Positions
- Staff Directory
- Workshop Calendar
- Faculty Seminars

Resources
- Where do I start?
- CINAHL (Nursing Articles)
- Consumer Health
- Dartmouth eResources
- eBooks
- eJournals
- Evidence-Based Medicine
- Google Scholar
- Images MD
- Lexis-Nexis

Help: Off Campus Access
- Library Catalog
- MDConsult
- NCBI's Entrez
- Ovid (MEDLINE, etc.)
- Portal: DMS 1 & 2
- PsycINFO
- PubMed (MEDLINE)
- UpToDate
- Web of Science
- and more...

Forms
- Ask a Librarian
- DartDoc: Request Articles & Books
- Recommend a Book or Journal

Services
- Make a Suggestion
- Request a Literature Search
- and more...

New & Notable
- Monday, March 12, 2007
  Library Grand Rounds-Surveys: Why, When
"SurveyMonkey: Introduction to Creating and Managing Online Surveys*"

SurveyMonkey allows you to create and administer online surveys. In this introductory, hands-on workshop you’ll learn to how to create surveys, the options for distributing them and how to view and share survey results. You’ll have a chance to work with the basic (free) version of SurveyMonkey. We’ll demonstrate the additional features available through the professional (paid) version.

**Date and Time:** Apr 19, 2007 from 12:00 to 1:30 PM  
**Maximum Enrollment:** 8  
**Teacher(s):** Heather Blunt  
**Location:** Matthews-Fuller Library, DHMC 5th floor  
**For more information contact:** Lora L. Thompson

**Sign up for this Workshop**

"PsycINFO* and MEDLINE: Finding Psychiatry and Psychology Information* "


More Resources

Survey Development Research Guide

Biomedical Libraries web page
Questions?