Survey Basics

Designing and Administering Useful Surveys

Sponsored by:
Illinois Public Health Institute (IPHI)
Illinois Department of Public Health (IDPH)
Trainer

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Training Objectives

1. Understand the basic components of developing a survey
2. Learn how to test a survey for cultural appropriateness
3. Assess the use of survey questions for gathering appropriate data
4. Explore the importance of collection, analysis, and reporting survey results
5. Apply the use of an online, web-based survey tool
Training Layout:

- Introduction & Basic Definitions
- Preparing
- Writing
- Testing
- Administering
- Analyzing & Presenting Findings
- Using Web-based Survey Tools
What is survey research?

- A method of gathering information from a sample of individuals by a standardized procedure so that every individual is asked the same question in more or less the same way.

- Surveys are used to obtain a composite profile of a population through the use of a representative sample of said population.

- Surveys can be self-administered or administered by a researcher.
## General Benefits & Barriers of Using a Survey

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Barriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relatively inexpensive</td>
<td>Relies on common knowledge</td>
</tr>
<tr>
<td>Reach large population</td>
<td>Inflexible</td>
</tr>
<tr>
<td>Reach remote populations</td>
<td>Appropriate sample</td>
</tr>
<tr>
<td>Standardized responses</td>
<td>Limited chances for clarification</td>
</tr>
<tr>
<td>Privacy can be assured</td>
<td>Cannot deal with context</td>
</tr>
</tbody>
</table>
Types of Surveys

- Written Surveys
  - Mail survey
  - Face-to-face surveys
- Oral Surveys
- Electronic Surveys
Written Surveys

• Written surveys are self-administered by the respondent after the document has been transmitted in some fashion from the researcher to the respondent. One example is the Census Bureau’s decennial general survey (SF1).

• They are considered to be less personal, and can be used to collect more sensitive information, especially if collected confidentially or anonymously.
Written Surveys

– Mail
  • Benefits: cost, convenience, bias, sample size
  • Barrier: response rate, ability for respondents to answer correctly

– Group administered
  • Benefits: response rate, sample specificity
  • Barrier: small sample, scheduling
Oral Surveys

• Oral surveys are administered by a researcher, where the questions and answer options are read out loud to the respondent. Some examples are phone surveys and in-person questionnaires.
Oral Surveys

• Benefits:
  – Personal Contact
  – Response Rate

• Barriers:
  – Cost
  – Bias
  – Limited question responses
  – Attitude
Electronic Surveys

• Electronic surveys are a relatively new form of survey research using email or web-postings to collect respondents’ feedback.
• Research is still being developed on the use of electronic surveys. Some emerging findings:
  – Electronic surveys are best used on specific populations that have easy access to the technology needed to conduct surveys.
  – Because of “spam” problems, it is important to notify respondents of the survey before it is administered.
  – Electronic surveys are not useful for conducting surveys on “strangers” or those unfamiliar with the researcher or organization administering the survey.
Electronic Surveys

**Benefits:**
- Cost
- Ease of Analysis
- Faster Transmission
- Ease of respondent preparation
- Higher response rate
- More candid responses
- Quicker response time
- Wider magnitude of coverage

**Barriers:**
- Sample limitations
- Lower level of confidentiality
- Layout & presentation limitations
- Additional orientation/instructions needed
- Response rates plummet as time expands
- Technical problems interfere
Exercise

• Let’s look at some scenarios to review what type of surveys would work best for the situation:
  – Written
  – Oral
  – Electronic
Exercise

1. You want to examine the exercise habits of women over 65 years old in your community.

2. You need to determine the average household expenditure on fruits and vegetables in your community.

3. You wish to understand the reasons why staff at the local health department go to the doctor.

4. Your need to examine the incidence of diabetes in your community.
Preparing the Survey

• Define your research question:
  – What is the purpose of the survey? What do you want to know from your respondents?

• Assess the Cost:
  – How much money, staff time, and materials are available to conduct the survey?

• Determine the use of existing resources:
  – Assess the relationships and networks available that can help administer the survey, especially for non-traditional groups.

• Understand your respondents:
  – How would the target population respond to the survey? Do you have access to the appropriate respondents?

• Look at other surveys – borrow
Reliability & Validity

• Reliability - instrument and procedures yield the same results in repeated trials
  – Measurement and process quality
• Validity – degree to which the study accurately reflects the specific concept measures
  – External validity: generalizable results
  – Internal validity: rigor, conduct, and relationship of findings
Writing the Survey:

- Question Types
- Format
- Wording
- Content
- Order
- Pretesting

“Please, Ma’am — I’m running out of paper!”
Question Types

• **Open-ended questions:**
  – “What do you think is the most important public health issue facing our nation?”

• **Closed-ended questions**
  – “Rank the following public health issues in order of impact on our nation:
    • Access to health care
    • Quality of providers
    • Cost of care
    • Racial & ethnic make-up of providers
Question Types

• **Ranking (e.g. Likert-scale)**
  – How important is exercise to a healthy lifestyle?
    1) Very important; 2) Important 3) Not important
  – Rank from 1-3 the impact of the following on your eating habits:
    • Cost
    • Availability at local store
    • Health impact

• **Numerical**
  – How many times in a week do you go to the grocery store?
Question Types

• Multiple Choice
  – Why do you eat fruits and vegetables?
    • They are good for my health.
    • I enjoy their taste.
    • They are the only food I can afford.

• Categorical (Nominal)
  – Chose the following that best describes your gender:
    • Male
    • Female
    • Transgendered
Question Format

• Split or unfolding questions
• Funneling questions
• Factorial questions
Wording

- Direct
- Simple
- Specific
- Discrete
- Culturally appropriate
Content

- Elicit response you desire?
- Necessary?
- Topic need multiple questions?
- Need context for appropriate answers?
- Succinct, but robust?
- Would you answer the survey?
- Would the respondents answer the survey?
Order

- Warm-up questions at the beginning
- Avoid starting with open-ended questions
- Create question “sets”
- Ease into sensitive questions
- Use transition questions
- Put the most important questions near the middle.
1. Do you smoke cigarettes or chew tobacco when you play sports?
   1. Yes
   2. No

2. How many times a week do you see advertisements for tobacco?

3. Most athletes do not smoke cigarettes. What sports do you play?
   1. Tennis
   2. Golf
   3. Soccer
   4. Volleyball
Pretesting

- Giving the survey to a “stranger”
- Conducting informal interviews
- Holding a focus group
  - Test language & concepts
Assuring Cultural Appropriateness

• Translation needed?
  – Done by a certified (medical) translator

• Gender & race neutral questions

• Steer clear of judgments and assumptions
  – If in doubt, use open-ended questions

• Avoid questions that could lead to social desirability bias
Sampling

- Nonprobability
  - Purposive
  - Volunteer
  - Quota

- Probability
  - Simple random
Administering the Survey

• Written:
  – Introductory letter
  – “Reward”
  – Self-addressed, stamped envelope for collection
  – Follow-up mailings with the survey to improve response rate

• Oral
  – Appearance: dress, voice, approach for the target population
  – Avoid wasting time
  – Professional & serious
  – Time and location suitable for target population
Survey Responses

- Nonresponse errors
- Response errors
Analyzing the Results:

- Choose a database
- Create a codebook
- Clean the data
- Run statistics
  - Charts/ graphs
  - Aggregates
  - Averages
Reporting the Results:

- Introduce the research question
- Explain the use of the survey method
  - Justify the sample
  - Describe how the survey helps answer the research question
  - State any limitations
- Present the data
Reporting Examples

• Explain the context/issue that justifies the finding: Fruits and vegetables are expensive in our community, keeping people from eating them.
• 57% of people surveyed said they don’t buy fruits and vegetables because they are too expensive.
• 78% of people reported that they would buy more fruits and vegetables if they were less expensive.
• State the finding: The reduction in the cost of fruits and vegetables in our community would likely increase residents consumption of them.
Using an Electronic Survey

- Sample representativeness
- Data analysis
- Confidentiality vs. Anonymity
- Responsible quotation
Create a New Survey

Select one of the options below to get started. If you already have an idea for your survey, just create a new survey from scratch. If you are a Professional user and need a creative spark, select one of our pre-existing templates to modify and use for free.

**How Would You Like to Create a New Survey?**

- Copy an existing survey
  - [Select an Existing Survey]
- Use a survey template (disabled)
  - Please [enable] to a professional account to enable this feature.
- Create a new survey from scratch

**Enter a Title for this Survey:**

**Title:** [ ] (max. 100 characters)

[Cancel] [Create Survey]
These questions allow respondents to choose as many answers as they want from the answer choices. Perfect for those "Choose all that apply" questions.

What type(s) of peanut butter do you like? (Please choose all that apply.)

- Crunchy
- Smooth
- Other (please specify)

Done
These questions allow respondents to choose as many answers as they want from the answer choices for each row.

My family likes the following type(s) of peanut butter.

<table>
<thead>
<tr>
<th></th>
<th>Crunchy</th>
<th>Smooth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Me</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>My Spouse</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>My Children</td>
<td></td>
<td>✔️</td>
</tr>
</tbody>
</table>

Done
This Question allows you to rate an items over different scales.

Please rate both the Texture and Taste of the following Brands of Peanut Butter.

<table>
<thead>
<tr>
<th>Texture</th>
<th>Taste</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skippy</td>
<td></td>
</tr>
<tr>
<td>Jif</td>
<td>Sticky</td>
</tr>
<tr>
<td>Peter Pan</td>
<td>Smooth</td>
</tr>
<tr>
<td>Adams</td>
<td>Chunky</td>
</tr>
</tbody>
</table>

Done
These questions allow respondents to rate items based on some rating criteria.

Please rate the following qualities of peanut butter.

<table>
<thead>
<tr>
<th>Quality</th>
<th>Extremely Important</th>
<th>Important</th>
<th>Doesn't Matter Much</th>
<th>Deal Breaker</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salty</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crunchy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smooth</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brown</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nutty</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Done
This question allows the respondent to type in their own answer over several fields.

Please list your top three favorite brands of Peanut Butter.

One

Two

Three
This question allows the respondent to type in a large amount of text for their response.

Please describe your first experience with Peanut Butter.
Collect Responses for “IPHI Training Survey”

Select the method you would like to use to collect responses. We refer to the method that you use to collect responses as a “collector”. While most people use only a single collector, you may want to use multiple collectors if you are sending your survey to different groups of people. Each collector can have its own unique settings and restrictions, and can be closed and opened independently. For more information about collectors, visit the help center.

How Would You Like to Collect Responses?

- Create a link to send in your own email message or to place on a webpage. The simplest and fastest way to collect responses. We generate a link for your survey that you can just copy and paste.
- Upload your own emails and have us send a survey invitation. You can upload your emails, and we will send a survey invitation on your behalf. You can customize the message that is sent, and track who responds in your list.
- Create a popup invitation for your webpage. We give you the code to generate a popup invitation on your own webpage.

Enter a Name for this Link:

Name: NewLink (max 999 characters)
Allow Multiple Responses?
- No, allow only one response per computer.
- Yes, allow multiple responses per computer -- Recommended for kiosks or computer labs.

Allow Responses to be Edited?
- No, once a page in the survey is submitted, respondents cannot go back and change existing responses.
- Yes, respondents can go back to previous pages in the survey and update existing responses until the survey is finished or until they have exited the survey. After the survey is finished, the respondent will not be able to re-enter the survey.
- Yes, respondents can re-enter the survey at any time to update their responses.

Display a "Thank You" Page?
- Thank you page is disabled for basic accounts. Please upgrade to a professional account to enable this feature.

Survey Completion
Completion Options: auto configured. Jumps to SurveyMonkey.com

Save IP Address in Results?
- No, the respondent's IP address will not be stored in the survey results.
- Yes, the respondent's IP address will be stored in the survey results.
Online Resources:

- www.communitydevelopment.uiuc.edu/commsurvey
- www.whatisasurvey.info/
- www.managementhelp.org/evaluatn/questnrs.htm
- www.statpac.com/surveys/
- writing.colostate.edu/guides/research/survey/index.cfm
- members.tripod.com/~frede_dast/conseil1_a.html

All links will be provided on the IPHI web-site.
Feedback

• Your feedback is VERY important. Please complete the online evaluation survey. The link was provided in your confirmation email and can be found on the next slide.

• If you registered for a group, please ask all participants to complete the evaluation also.

• We will use this information to plan future sessions and continually improve.
Evaluation Link

http://www.surveymonkey.com/s.aspx?sm=51aXqtg0NwQy_2fzasY2sP_2bA_3d_3d
Question and Answer Session

• Please join us now for a LIVE Q & A session with the presenter:
  – Dial 1(877) 411-9748
  – Enter the access code: 3467868#
  – Mute your phone (*6 to mute or un-mute).

• If you have a question that is not addressed on the call, please email the question to laurie.call@iphionline.org.