Asking the Right Questions: Designing Surveys that Work

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creating community through the arts

Last Revised: January 29, 2013
Objectives

By the end of this workshop, you will possess:

• Procedures for high quality survey design
• Tips for writing questions and survey formatting
• Strategies for increasing response rates
Agenda

• To Survey or Not Survey
• Establishing Goals
• Sampling
• Designing Questions (a hands-on exercise)
• Response Rates
• Surveying Rules of Thumb
• Next Steps

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First Question to Ask: Should I even be doing a survey?

**Surveys**

<table>
<thead>
<tr>
<th>Good for measuring</th>
<th>Weak for measuring</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Attitudes</td>
<td>• Behaviors*</td>
</tr>
<tr>
<td>• Opinions</td>
<td>• Skills</td>
</tr>
<tr>
<td>• Perceptions</td>
<td>*depends on time between experience and survey</td>
</tr>
</tbody>
</table>

*depends on time between experience and survey
Designing a Survey that Works

1. Establish the goals.
2. Determine who you will survey.
3. Determine the questions.
4. Write the questions.
5. Format the survey.
6. Pre-test the survey.
7. Conduct the survey.
8. Analyze the data.

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Establishing Goals

What do you want to learn?
Who will you survey?
What will you ask them?
Who will you survey?:
An Introduction to Sampling

Population

Sample

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Benefits of Sampling

• Reduced costs

• Faster results

• Increased precision
Sampling:
Potential for Bias

- Sampling error
- Coverage error
- Non-response error
Simple Random Sampling

• Every person in the population has the same probability of selection
• Yields most representative survey
• Depends on access to a sampling frame
Sampling Methodologies: Systematic Sampling

• Use when the population is too large or the sampling frame is not computerized
• Calculate the sampling interval
  – Sampling interval\((i) = \frac{\text{population}}{\text{sample}}\)
• Pick a random starting point and take every \(i\)th case
Examples of Systematic Sampling

• Visual Arts: On any given day, hand a survey to every 50th visitor.

• Performing Arts: Put a survey in every 20th program or on every 20th seat.
Sampling Methodologies: Convenience Sampling

- Take what you can get
- Generally viewed as less representative
- Higher likelihood for non-response bias
Determining your Sample Size

• Bigger is not better.
• Sample needs to be representative.
• Smaller populations require larger samples to be representative.

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## Determining your Sample Size

<table>
<thead>
<tr>
<th>Condition</th>
<th>Recommended Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>No previous experience at doing surveys. No existing survey data</td>
<td>100 to 200</td>
</tr>
<tr>
<td>Some previous experience or some previous data. Want to divide the sample</td>
<td>200 to 400</td>
</tr>
<tr>
<td>into two groups for analysis.</td>
<td></td>
</tr>
<tr>
<td>Have previous experience and previous data. Want to divide the sample</td>
<td>400 to 600</td>
</tr>
<tr>
<td>into up to 4 groups. Want to compare with previous survey data.</td>
<td></td>
</tr>
</tbody>
</table>
Determining your Sample Size: A Common Misconception

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Writing Survey Questions

Pillars of Question Construction:

• Brevity
• Objectivity
• Simplicity
• Specificity
Writing Survey Questions: Potential for Bias

Measurement error

• Poor question design
• Faulty assumptions
• Imperfect scales
What’s wrong with this survey?

A hands-on exercise to introduce concepts related to survey question design
Survey Introduction

• Explain the purpose of the survey
• Provide an estimate of how long the survey will take
• Offer an incentive or prize
Demographic/Sensitive Questions

• Position toward the end of the survey
• Age – Ask for year of birth or age range
• Race/Ethnicity - Use the same wording as the Census so that you can compare your data to regional data

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# Question Types: Open-Ended versus Close-Ended

<table>
<thead>
<tr>
<th></th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open-Ended Questions</td>
<td>• Allow collection of more detailed information</td>
<td>• More time and effort by respondent</td>
</tr>
<tr>
<td></td>
<td>• Reduced likelihood of response bias</td>
<td>• More time and effort to analyze</td>
</tr>
<tr>
<td>allow respondents to</td>
<td></td>
<td></td>
</tr>
<tr>
<td>answer in their own</td>
<td></td>
<td></td>
</tr>
<tr>
<td>words</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Close-Ended Questions</td>
<td>• Easy and quick to answer</td>
<td>• Answer choices must cover all possible answers</td>
</tr>
<tr>
<td>have pre-written</td>
<td>• More easily analyzed</td>
<td>• Must pay careful attention to wording of each</td>
</tr>
<tr>
<td>responses for the</td>
<td></td>
<td>choice, number of choices, and order of choices</td>
</tr>
<tr>
<td>respondent to select</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Types of Questions to Avoid

<table>
<thead>
<tr>
<th>Question Type</th>
<th>Examples</th>
</tr>
</thead>
</table>
| **Loaded**        | • Should Americans buy imported automobiles that take away American jobs?  
                    • Have you stopped beating your wife?                                                                                                       |
| **Double-Barreled** | • Do you believe that crime is a problem and the administration should be working diligently on a solution? Yes/No  
                    • How satisfied are you with your pay and job conditions?                                                                                      |
| **Leading**       | • Most rational people agree that the Pittsburgh Steelers are the best football team in NFL history - do you agree?  
                    • This agency was recently ranked as number one in customer satisfaction in the federal government. How satisfied are you with your experience today? |
### Question Types: Rating Scale Questions

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unipolar scale</td>
<td>Measures the presence or absence of a quality or attribute - only one extreme is anchored</td>
</tr>
<tr>
<td>Bipolar scale</td>
<td>Measures either positive or negative responses to a statement - anchored on both extremes</td>
</tr>
<tr>
<td>Balanced scale</td>
<td>Equal amounts of positive and negative positions</td>
</tr>
<tr>
<td>Unbalanced scale</td>
<td>Unequal number of favorable and unfavorable response options</td>
</tr>
<tr>
<td>Forced choice method</td>
<td>Neutral option has been removed from scale</td>
</tr>
</tbody>
</table>
Potential Biases with Rating Scales

• Central tendency bias
• Acquiescence bias
• Social desirability bias
Question Types: Ranking Questions

• Used to rank items along a dimension such as level of importance
• Force respondents to differentiate between items
• Cannot be analyzed like rating questions
Tips for Maximizing Response Rates

• Request participation in advance
• State the purpose of the survey
• Allow enough time to complete the survey
• Design an easy to follow survey
• Offer an incentive
Survey Fatigue

- Survey fatigue leads to lower response rates.
- Don’t send a survey invitation to everyone, every time.
- Tragedy of the Commons
Survey unto others as you would have them survey unto you.

- Keep it short.
- Make it attractive.
- Build a rapport.
- Design questions carefully.
- Allow for additional comments.
- Don’t over survey the same people.
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