INTRODUCTION TO QUESTIONNAIRE DESIGN

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GENERAL INFORMATION

- Please hold questions until the end of the presentation
- Slides available at www.srl.uic.edu
- Please raise your hand so that I can see that you can hear me
OUTLINE

- Factors affecting questionnaire design
  - Survey question answering
    - Cognitive process
    - Conversation
  - Cognitive model of the response process
    - Survey satisficing
  - Sensitive questions
  - Closed- versus open-ended questions
  - Other aspects of question format and wording
    - Scales
    - Double-barreled questions
  - Formatting self-administered questionnaires
  - Question order

FACTORS AFFECTING QUESTIONNAIRE DESIGN

- Goals and purpose of research
- Types of questions being asked
  - Objective (e.g., behaviors, experiences, knowledge, or personal characteristics)
  - Subjective (e.g., attitudes, beliefs, or perceptions)
- Population being surveyed
  - General population
  - Specialized population (e.g., children or elites)
  - Organizations
- Mode of survey
  - Self-administered modes (e.g., mail or web)
  - Interview-administered modes (e.g., telephone or in-person)
COGNITIVE STEPS IN ANSWERING QUESTIONS

1. Understand question.
2. Search memory for information.
3. Integrate information into summary judgment.
4. Translate judgment onto response alternatives.

“Optimizing”

COGNITIVE STEPS

• Understand question.
• Search memory for information.
• Integrate information into summary judgment.
• Translate judgment onto response alternatives.

“Weak satisficing”
COGNITIVE STEPS

- **Understand** question.
- Search memory for information.
- Integrate information into summary judgment.
- **Translate** judgment onto response alternatives.

“Strong satisficing”

FACTORS INFLUENCING SATISFICING

- Respondent motivation
- Respondent ability
- Task difficulty
- Use clear, easy language
- Minimize task difficulty
- Break task down into smaller tasks in some cases (e.g., select all that apply)
SURVEYS AS A CONVERSATION

- Conversational norms
  - Numbers assigned to response options
    - 0-10 vs. -5 to +5
  - Questions shown together → communicates relatedness
  - Response categories for behavioral frequencies may communicate norms or expectations
- Conversational conventions
  - Positive before negative
  - Favor or oppose

SENSITIVE QUESTIONS

- Sensitive questions – those that respondents might feel uncomfortable answering
  - Sexual behavior
- Social desirability response bias – questions with normative implications
  - Voter turnout
  - Church attendance
  - Cheating behavior
- Goals
  - Assure of confidentiality
  - Validity of survey request
  - Make comfortable with potentially giving nonnormative response
**OPEN VS. CLOSED QUESTIONS**

- **Open-Ended Questions**
  - Suggest no alternatives
  - Probing
  - Free exchange of ideas without bias
  - Extensive interviewer training
  - Elaborate coding schemes
  - Expensive and time-consuming

- **Closed-Ended Questions**
  - Standardized questions and answers
  - Simple interviewer training
  - Easy to analyze
  - May make it too easy to answer without thinking
  - May limit spontaneity
  - Not best when
    - asking for frequency of sensitive behaviors
    - there are numerous possible responses
QUESTION FORMAT AND SATISFICING

• Order of response options
  • Primacy effects
  • Recency effects

• Agree-Disagree, Yes-No, True-False
ACQUIESCENCE

Form A (agree I’s version): Individuals are more to blame than social conditions for crime and lawlessness in this country.

<table>
<thead>
<tr>
<th>Agree (I)</th>
<th>59.6%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disagree (SC)</td>
<td>40.4</td>
</tr>
</tbody>
</table>

Form B (agree SCs version): Social conditions are more to blame than individuals for crime and lawlessness in this country.

<table>
<thead>
<tr>
<th>Agree (SC)</th>
<th>56.8%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disagree (I)</td>
<td>43.2</td>
</tr>
</tbody>
</table>

ACQUIESCENCE

I like going to the movies.

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
</table>

Do you like or dislike going to the movies?

Like | Dislike

How much do you like going to the movies?

Like a lot | Like somewhat | Like a lot | Like a great deal
QUESTION FORMAT AND SATISFICING

• Series of items with same scale

NON-DIFFERENTIATION

How important is each of the following qualities for a child to have?

<table>
<thead>
<tr>
<th>Quality</th>
<th>Not important</th>
<th>Extremely important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good manners</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Tries hard to succeed</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Is honest</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Is neat and clean</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>Has sound judgment</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>
QUESTION FORMAT AND SATISFICING

• “Don’t know” option
• Non-attitude report reduction or invitation to satisfice?

QUESTION FORMAT - SCALES

• Length of Response Scale
  ◦ Bipolar scales versus unipolar scales
  ◦ Topic
  ◦ Labeling
QUESTION FORMAT - SCALES

- Numbering vs. Labeling
  - Numbers alone
  - Partial labeling
  - Full labeling

QUESTION FORMAT – RESPONSE OPTIONS

- Response Options
  - Should be consistent with the question
  - Should typically be exhaustive, including every possible answer
  - Categories should typically be mutually exclusive (no overlap)
**QUESTION FORMAT – DOUBLE BARRELED**

• Double-barreled questions

**Question:** Compared to one year ago, are you paying more, less, or about the same for your auto and life insurance?

**Better Question:** Compared to one year ago, are you now paying more, less, or about the same for...

  a. auto insurance?
  b. life insurance?

**SELF-ADMINISTERED QUESTIONNAIRES: PHYSICAL FORMAT CHECKLIST**

- Use large, clear type; don’t crowd
- ‘White space:’ Place more blank space between questions than between subcomponents of questions
- List answer categories vertically instead of horizontally
- Avoid double/triple columns of response choices
PHYSICAL FORMAT CHECKLIST (CONTINUED)

- Put special instructions on questionnaire as needed, next to question
- Be consistent with direction of response categories
- Be consistent with placement of response categories
- Distinguish directions from questions – be consistent

WEB SURVEY SOFTWARE

- Web Tools (http://illinois.edu/toolbox)
- Surveygizmo (www.surveygizmo.com)
- Qualtrics (www.qualtrics.com)
QUESTION ORDER – GENERAL PRACTICES

- Start with at least a few relatively easy, nonsensitive questions
- More difficult questions near at the beginning before fatigue sets in
- Open-ended questions usually asked either at the beginning (What is the most important problem facing the nursing profession?) or at the end (What would you do to make the nursing profession more appealing?)
- Questions that you don’t want influenced by the questionnaire content at the beginning

QUESTION ORDER – GENERAL PRACTICES

- Knowledge questions – toward the middle/end of the questionnaire
  - People sometimes feel uncomfortable admitting they don’t know something and they don’t like to look unknowledgeable
- Sensitive questions or those with possible social desirability connotations – toward the middle/end of the questionnaire
  - E.g., To the best of your knowledge, have you ever given a patient the wrong dose of a medication or have you not ever done so?
- Demographic questions – typically asked at the end unless otherwise necessary
  - E.g., questions asked of a demographic subgroup
USE OF SKIP PATTERNS AND FILLS:

- Describe
  - Skip patterns
  - Fills
- In what types of surveys can they be implemented?
  - CATI
  - CAPI
  - Web
  - Self-administered paper and pencil – more difficult
- What do they do?
  - Minimize respondent effort and frustration
  - Increase flexibility and individualization

KEY REFERENCES TO GET STARTED


- See also past issues of *Public Opinion Quarterly*
OTHER REFERENCES


THANK YOU!

Future noontime webinars

- Evaluations of webinar coming in your e-mail! Please complete!
Evaluation

Questions