Moving Surveys into the Future: Considerations for Technology-Friendly Survey Design

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Presentation Overview

- Basic principles of survey structure and design

- Design choices

- Impact of technology on these general survey principles
  - Online, mobile methods

- Audience creation of sample survey items

Presentation Overview

- Basic principles of survey structure and design:
  - Common survey issues & solutions
  - Improving responses to open-ends
- Design choices
- Impact of technology on these general survey principles
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Common Survey Issues and Solutions

- Ask yourself:

What information do I need to get out of this item? How will I analyze it?

How could this question be answered in a way I *don't* want? What would that response mean?

How could this item be misinterpreted? How can I make the question clearer to guard against likely misinterpretations?

Common Survey Issues and Solutions

- Sample survey/example framework:
  - Respondents had received legal services from an organization.
  - 6 months later, CHSR needs to determine clients' satisfaction with those services, long-term outcomes, feelings about the legal system in general.

Common Survey Issues and Solutions

- Mismatched questions and response items:
  - Did Organization help you resolve your legal case?
  - Strongly disagree; Disagree; Neither; Agree; Strongly Agree

- Make sure questions and items match
  - Did Organization help you resolve your legal case?
  - Yes, ORG helped resolve; No, ORG did not help resolve; Case is ongoing

Common Survey Issues and Solutions

- Double-barreled questions:
  - Was your lawyer friendly and helpful?
  - Yes; No

- Ask separately!
  - Was your lawyer friendly? Was your lawyer helpful?

Common Survey Issues and Solutions

- Non-exhaustive response options:
  - On average, how often did you talk with your assigned lawyer?
  - Once a month; Once a week; Once a day

- Use ranges, or make sure to include "other, specify"
  - On average, how often did you talk with your assigned lawyer?
  - Once a month *or less*; A few times a month; Once a week; A few times a week; Almost every day *or more*
  - How many times did you talk to your assigned lawyer?
  - 1-2 times; 3-5 times; 6-10 times; Other, please specify:

Common Survey Issues and Solutions

- Asymmetrical scales:
  - How helpful was your assigned lawyer?
  - Super helpful, Very helpful, Somewhat helpful, Not helpful

- Include same number of positive & negative options
  - How helpful was your assigned lawyer?
  - Very helpful, Somewhat helpful, Neither helpful nor unhelpful, Somewhat unhelpful, Very unhelpful

Common Survey Issues and Solutions

- Overlapping scales:
  - What is your age?
  - 20 or younger; 20-30; 30-40; 40-50; 50 or older

- Don't overlap response categories
  - What is your age?
  - Less than 20, 20-29; 30-39; 40-49; 50 or older

Common Survey Issues and Solutions

- Reference Periods:
- Greater accuracy with shorter reference period
  - How often did you communicate with your assigned lawyer in the past 6 months? [0-5 times, 6-10 times, more than 10 times]
  - How often did you communicate with your assigned lawyer in the past month?   [1-2 times, 3-5 times, more than 5 times]
- *But:* items with lower base rates may require longer period
  - Have you ever spanked your child(ren)? *If yes:*
  - About how many times have you ever spanked your child(ren)?
  - About how many times did you spank your child(ren) in the past year?/month?

Common Survey Issues and Solutions

- Other:
  - Avoid technical jargon, abbreviations
  - Avoid double negatives
  - Make items as easy to answer as possible

Common Survey Issues and Solutions

- Question Framing
  - Social desirability
    - We are conducting this survey as part of a program to reduce drinking in excess. Please answer these items according to your drinking habits.
  - Clear valences
    - X program has been implemented to improve services. Please respond according to your experience with services.
  - Links to authority
    - <Relevant authority figure> supports this plan. Please answer the following items on your opinions of this plan.
  - Comments about sensitivity of topic
    - The next questions ask about experiences of domestic violence or abuse. I know this topic might be sensitive. Please just give your best answer, if you can.

Common Survey Issues and Solutions

- Question Framing

- Instead:
  - Keep question intros and transitions to a minimum. Be brief, balanced, bland:
    - The following questions ask about your drinking habits. Please answer according to your habits.
  - Or, use to lower threat level for sensitive topics.
    - Feeling unsafe at home can happen to anyone. Have you ever felt unsafe at home or with a partner?
    - Even the calmest parents get angry at their children some of the time. How often did you get angry with your children in the past week?

Bradburn, Sudman, & Wanskink. (2004) Asking Questions: the definitive guide to questionnaire design – For market research, political polls, and social helath questionnaires, revised edition. Jossey-Bass, San Francisco, CA.

Improving Responses to Open-Ends

- Always tough, but especially tricky on smartphones!
    - Minimize number of open-ends
    - Reserve for end of survey
    - Allow respondents to skip
    - Add motivating text to question: why should I bother answering?

- Make sure open ended data is useable! Avoid invalid answers:
    - Use built-in validation (e.g., expecting numbers?)
    - Provide example, especially on formatting

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Improving Responses to Open-Ends

- When did you begin your legal case?
  - Year? Exact date? 2018 vs. 18 vs. June 2018 vs. 6/2018 vs. 6/18?

- Please provide the month and year in which you began your legal case (e.g., 6/2018):

- Please describe how your lawyer was helpful or unhelpful.

- How satisfied were you with the support provided by your assigned lawyer? Very satisfied; Somewhat satisfied; Neither satisfied nor dissatisfied; Somewhat dissatisfied; Very dissatisfied

- You indicated that you were somewhat dissatisfied with the support provided. Can you tell us more about this? *Your answer will help us adjust our services better for future clients.*

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- Basic principles of survey structure and design
- Design choices
  - Question order
  - Forcing responses
  - Response scale lengths
- Impact of technology on these general survey principles
- Audience creation of sample survey items

Survey Design Choices: Question Order

- First items should have high relevance, be interesting, easy to answer, applicable to everyone, not open ended!

- Ask content question, then screener?

- Where do you put your demographics??
  - Beginning: not (as obviously) relevant, likely to be a turn-off?
  - End: will miss if someone has already dropped out?

- We recommend end

Survey Design Choices: Question Order

- Group similar items, *items with similar response scales* together
  - Group all your 5-point Likerts; group all your satisfaction questions

- Ask general question first, then specific
  - How satisfied were you on your last call with your assigned lawyer?
  - How satisfied were you with your lawyer overall?

  - How satisfied were you with your lawyer overall?
  - How satisfied were you on your last call with your assigned lawyer?

Survey Design Choices: Forcing Responses

- Requiring responses -> drop out, lower-quality data

- But high amount of skips may invalidate data

- *Consider:*
  - What items do you need for participant filtering/screening?
  - What items are critical for your question/analysis?
  - When is skipping reasonable? What might respondents plausibly not want to answer? Is Don't Know a reasonable response?
  - Can you remind participants to respond, but not force/require?

Decieux et al. (2015) Implementation of the forced answering option within online surveys: Do higher item response rates come at the expense of participation and answer quality? *Psihologija, 48*(4), 311-326.

Survey Design Choices: Response Scales

- Should your Likert scales have 5 or 7 items?
- Should you always have a midpoint/neutral, or never?

- No consensus! Research is too up in the air at this point!

- *But do consider:*
  - Are people likelier to use the extremes only for certain groups/items?
  - Rivera & Tilcsik: Female instructors lower average ratings than male on 10 point scale, no difference on 6 point scale

Rivera & Tilcsik (2019). Scaling down inequality: Rating scales, gender bias, and the architecture of evaluation. *American Sociological Review, 84*, 248-274.

Presentation Overview

- Basic principles of survey structure and design:

- Design choices

- Impact of technology on these general survey principles
  - Online vs Mobile Surveys, Mobile survey optimization
  - Strategies for participant engagement
  - Use of SMS formats
  - Technological Quirks & Pitfalls

- Audience creation of sample survey items

Online vs Mobile Surveys

- Assume *all* online surveys are "mobile surveys," too
  - 81% of Americans own a smartphone
  - 74% have personal computer
  - 52% have tablets, e-readers
  - 17% have smartphone only: *no home broadband internet*
    - Particularly younger, non-white, lower income, lower education
- So assume that your online surveys will be taken on smartphones, and optimize for that, too!

Pew Research Center, data through winter 2019 https://www.pewinternet.org/fact-sheet/mobile/

Mobile Survey Optimization

- Is "Mobile Friendly" an option on your platform? Is there a "Mobile Preview"?

- Scale Length & Orientation

e.g., Please rate how likely you are to recommend our services to a friend, on a scale of 10 (extremely likely) to 1 (extremely unlikely):

○ 10 ○ 9 ○ 8 ○ 7 ○ 6 ○ 5 ○ 4 ○ 3 ○ 2 ○ 1
10 9 8 7 6 5 4 3 2 1

○ **10**
○ **9**
○ **8**
○ **7**
○ **6**
○ **5**
○ **4**
○ **3**
○ **2**
○ **1**

Mobile Survey Optimization

- Minimize scrolling: especially side

- Check images: Are large images scaled correctly?

- Minimize open-ends

Strategies for Participant Engagement

First contact: The message itself

- Distribution from recognizable source
  - Best: ResearchCenter@albany.edu
  - OK: mgullick@albany.edu
  - Worst: mgullick@gmail.com
  - *Official Group > Individual Person at Institution > ???*

- Subject line: Credible and appealing enough to open
  - Best: Recognizable ORGNAME Research Study
  - Not Best: Money for completing Survey!

Strategies for Participant Engagement

- Body of message:
  - Provide survey's topic, purpose, sponsorship; Gives info needed for informed consent; Elicits participation

Dear NAME, *Personalization*

A few months ago, you received some legal help from ORG. We hope you are doing well.

ORG is working with a team of researchers at SUNY ALBANY to learn more about our client's needs so we can do our work better. The research team would like to follow up with you to ask you some more questions about your experience. *Note affiliations, why study is important*

As a thank you for your time, we will mail you a $10 Target gift card! *Incentive!*

The survey will take about 10 minutes. Your answers will be confidential: nothing you say will appear in any legal documents or in your ORG file, nor will anything be shared with any of the lawyers who helped you. Only the research team will have access to your data. *Consent*

You can start the survey by clicking here: LINK

If you have questions about this survey, please contact Margaret Gullick at <INFO>.

Survey questions vs. Further services

If you need additional legal help, please call our hotline at <INFO>

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Strategies for Participant Engagement

- Within the survey itself:

- Take advantage of the technology
  - Skip patterns
  - Drag & Drop ranking, instead of numbering

Please rank these colors in order from your favorite to least favorite:

Red _____

Orange _____

Yellow _____

Green _____

Blue _____

Purple _____

Brown _____

Black _____

White _____

Please rank these colors in order from your favorite to least favorite:

1 Green

2 Blue

3 Black

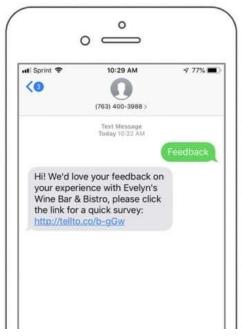4 Purple

5 Yellow

6 Red

7 White

8 Brown

9 Orange

Use of SMS

- SMS = short message service (texting)
- Texting-based question-and-answer surveys
  - Platform dependent, but might be available to you
  - *Note:* SMS does require express consent to contact via this method (according to FCC regulations)
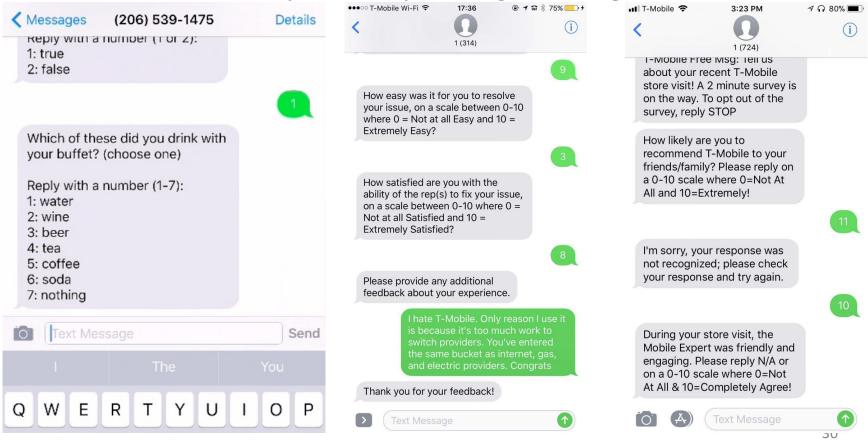
- 2 main ways to use SMS for surveys:
1. Texting a link to a survey

Use of SMS

2. Interactive surveys directly through texting

Use of SMS

- Again, consent required ahead of time

- Typically limited to simple question types (single-answer multiple choice, text entry with limited number of characters)

- But: still could be useful for participant check-ins between full instruments, contact info validation, scheduling full phone survey

Technological Quirks & Pitfalls

- Be a/ware of pre-programmed quirks in different platforms!
  - e.g., in Qualtrics: when downloading data, defaults to putting all "don't know" answers as missing!

- Response rates vary between methods
  - In Person > Mail > Emailed > Phone > SMS?

- Demographics likely to be reached may be skewed
  - SMS may be a good way to reach minority, low-income respondents

https://news.gallup.com/opinion/methodology/221159/using-text-messaging-reach-survey-respondents.aspx ;
https://surveyanyplace.com/average-survey-response-rate/ ; Manfreda, et al. (2008) Web surveys versus other survey modes: A meta-analysis comparing response rates. *International Journal of Market Research, 50,* 79-104.
https://www.pewinternet.org/2011/09/19/americans-and-text-messaging/

Technological Quirks & Pitfalls

- Lack of "interviewer"/proctor may lead to more honest answers on sensitive topics
  - e.g., Have you ever been a victim of domestic abuse or violence?
  - Have you ever spanked your child(ren)?

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- **Audience creation of sample survey items**

Your Turn!

- Let's say we want to create a survey to evaluate feelings on the choice of Minneapolis for this year's conference.

- Who is your audience?

- How do you distribute it?

- What's your first question?

- What do you need to ask? What do you need to know?

- Any key demographics that are especially relevant?

Your Turn!

- Sample questions: What tweaks do they need?

- How many previous AEA conferences have you attended?

  0; 1-2; 2-5; 5 or more

- Have you ever been to Minneapolis before?

  Yes;No

- During your AEA visit, did you explore any Minneapolis attractions?

- On a scale of 1-10, how much did you enjoy your brewery tour?

Your Turn!

- Please order these items in terms of how strongly each influences your conference attendance, from greatest (1) to smallest (7) impact:

  Ease of travel from my home city

  Cost of attendance (e.g., hotels)

  Perceived "coolness" of location

  Foodie opportunities

  Weather in proposed location

  Tourist attractions

  Conference's annual topic/theme

- On a scale of 1 to 10, where 1 is the lowest, and 10 the highest, please rate where you think Minneapolis falls on these items.

- Are there any other critical factors you consider? If yes, please specify:

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Questions?

- Thank you!

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About the Center for Human Services Research

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