Writing Better Survey Questions

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Why are we here?

- Increase competence and consciousness

Conscious Incompetent	Conscious Competent
Unconscious Incompetent	Unconscious Competent

  - Good questions mean more reliable results
  - Work better with suppliers

- Reduce anxiety
  - "Is my survey as bad as the surveys I'm seeing?"

- Improve experience for survey takers
  - Increase response rates
  - Minimize non-response bias

Topics

- Why the questionnaire is so important
- Process for questionnaire development
- Interview/survey flow
- Specific tips and techniques
- Answer your questions

Questionnaire: the Heart of a Survey

Planning and Design	Questionnaire and Invitation	Program and Test	Data Collection	Data Processing	Analysis and Reporting	Choosing an Online Survey Tool
Design research that achieves objectives: Determine data collection approach Design sample plan Identify analysis required	Write questionnaire that realizes survey objectives and good response rate Pre-test as document Create compelling email invitation	Program online survey Test beyond project team Soft launch (check entire process from invitation to results in database)	Customize email invitations with IDs Set up website with link to survey Monitor responses Send reminders	Perform data cleaning Code open-ends and other/specifies Build cross-tab report with significance testing Create SPSS file	Analyze results against objectives Identify key findings and insights Make recommendations Build presentation that communicates effectively	Question Types Logic Programming Publishing Reporting Exporting Subscriptions

Survey experiences

Worst experience you've had taking a survey?

72% ○ Survey took too long
 6% ○ Wording didn't make sense
12% ○ Options didn't fit
 4% ○ Question was irrelevant
 6% ○ Other _____

Best experience taking a survey?

22% ○ Survey didn't waste my time
 6% ○ Felt they would listen and act
33% ○ Survey was interesting
39% ○ I received an incentive
 0% ○ Other / specify

Which was most memorable?

   ○ Good experience
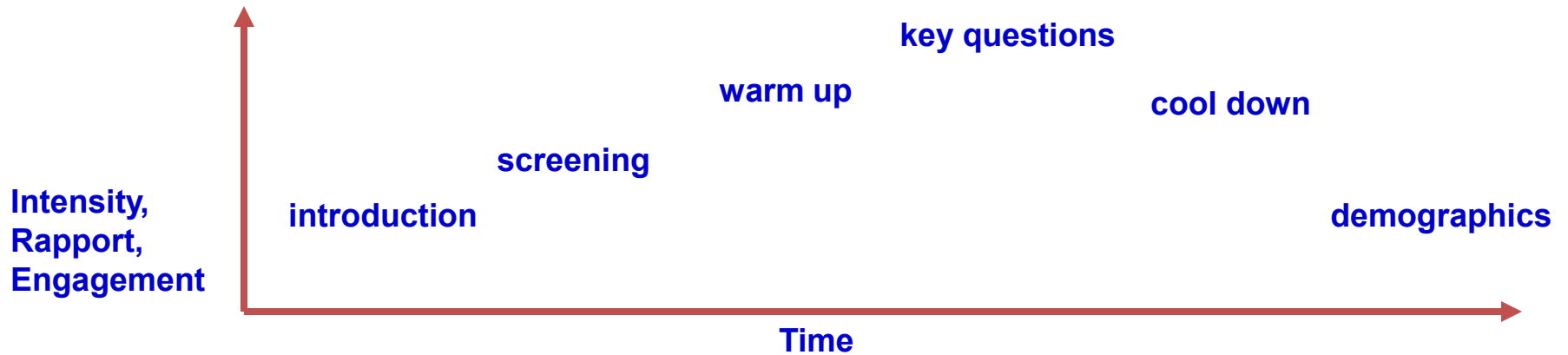   ○ Bad experience

Questionnaires are IMPORTANT

- Proper Planning Prevents P____ Poor Performance

- Design for the objectives
- Design for analysis
- Design for survey taker experience

- No room for error online
  - Test document, test online internally, soft launch

The right question

Asked the right way

In the right order

Surveys are like Conversations

Intensity, Rapport, Engagement

introduction

screening

warm up

key questions

cool down

demographics

Time

invitation

Your challenge is to keep the survey taker interested, and providing valid answers

Wording

- One idea per question.
  - Avoid double barreled questions. "And" is usually a giveaway, but sometimes more subtle

- Avoid jargon and special terms
  - The survey taker is generally not a co-worker or industry insider
  - Geography can impact (beach vs. shore, ATM vs TYME machine)

- Keep grammar simple.
  - Check the reading level. 13-15 year old OK.
  - Read the question aloud – does it sound stiff?
  - BUT, don't fake assumed language of survey taker

- Avoid biasing response through wording
  - Sometimes blatant "SUGing", usually more subtle

- Words that are subject to interpretation
  - Recently, regularly, favorite

Sample questionnaire issues

Original	Better
Do you carpool to work to reduce air pollution? ◯ Yes ◯ No	Do you carpool to work? Yes or no What is the main reason for carpooling to work? • To reduce air pollution • Save money on gas • Use carpool lanes

Question types and scales

- Most surveys can be handled with a few question types – don't over complicate just for the sake of it

- Some newer or unusual types may seem like a good idea, but may not pay off
  – Higher bandwidth requirements
  – JavaScript
  – Mobile
  – Unfamiliarity
  – By all means try, but pre-test, have a fall-back, and use a survey feedback question.

What else should we cover?

- ❑ Question types:
  - o Single choice, multiple choice

- ❑ Other/specifies and Open ended questions

- ❑ Scales
  - o Numeric
  - o Likert
  - o Other anchored scales
  - o Midpoint or not
  - o Higher to the right, higher to the left?

- ❑ Matrix questions
  - o How to mess them up, when to use them

- ❑ Demographics
  - o What to ask and how

- ❑ Your specific questionnaire issues

Single choice (radio button)

Do you own a car?
- ○ Yes
- ○ No

Which of these ways do you use **<u>most often</u>** to travel to downtown Seattle?
- ○ Car
- ○ Motorcycle
- ○ Bus
- ○ Light rail
- ○ Walking
- ○ Bike

- Generally randomize list to avoid position bias. BUT
  - Long lists may confuse or annoy if randomized (list of stores)
  - Other/specify should usually be at the end of the list

- Avoid drop down lists
  - Too easy to choose an item at the top – position bias

Multiple choice

Which of these ways have you used to travel to downtown Seattle in the past 3 months?

- ❑ Car
- ❑ Motorcycle
- ❑ Bus
- ❑ Light rail
- ❑ Walking
- ❑ Bike

Which of the following animal charities do you donate to? (Please check all that apply)

- ❑ ASPCA
- ❑ Humane Society
- ❑ Rescue group of a breed club

What's wrong with this?

Which methods did you use to contact our support center?

○ Email

○ Telephone

○ Web

○ Email and Telephone

○ Email and Web

○ Telephone & Web

○ Email, Telephone, & Web

Better

Which methods did you use to contact our support center? Please check all that apply

❑Email

❑Telephone

❑Web

Options and Other/Specify

- Options should be mutually exclusive
- Options should cover all possibilities, but
  - Sometimes the list is long tail, and including all possibilities detracts from most survey takers' experience
  - Sometimes you just don't know

Use other/specifies when appropriate
- Can be used with single choice and multiple choice
- Don't just use to save your time. Pre-test to confirm options
- Percentages from other/specifies will be lower than options
- Online survey tool (or subscription level) may limit use of other/specify
  - Using response in other questions (piping)
  - Fixed placement when rest of options are randomized

Other/Specify examples

Which of the following animal charities do you donate to? (Please check all that apply)
- ❑ ASPCA
- ❑ Humane Society
- ❑ Rescue group of a breed club
- ❑ Other _____

Which of the following is the main reason you travel by **car** to downtown Seattle?
- ❍ Less time than other methods
- ❍ Less expensive than other methods
- ❍ I feel safer
- ❍ Easier to carry things
- ❍ Better for more than one person
- ❍ Other _____

Note that the second example could cause problems if you really do want survey takers to choose among limited options. You may get responses in 'other' that could fit into existing options. In this case, perhaps better to add an open-end to allow more complete answer, then you can decide whether to analyze.

Common scale questions

Interval scale – general form – often used for matrix questions

On a scale of 1 to 10, where 1 means extremely dissatisfied and 10 means extremely satisfied, how satisfied are you with the following:

	1	2	3	4	5	6	7	8	9	10
Customer service	○	○	○	○	○	○	○	○	○	○
Product quality	○	○	○	○	○	○	○	○	○	○

Likert (balanced and anchored, often numerically analyzed)

What is your opinion of the following statement? People should not use cell phones while driving

- ○ Strongly disagree
- ○ Somewhat disagree
- ○ Neutral
- ○ Somewhat agree
- ○ Strongly agree

Unidirectional anchored scale

How likely are you to purchase a widget in the next 3 months? Would you say you are:

- ○ Very likely
- ○ Somewhat likely
- ○ Maybe, maybe not
- ○ Somewhat unlikely
- ○ Very unlikely

Scale question rules and issues

- Number of points
  - 5 to 7 points are fine for analysis (even advanced)
  - 10 points fits common usage, (11 points common in Europe)
  - Usually bucket long scales for analysis (top box, bottom box)

- Order – no universal agreement, but be consistent
  - I recommend higher number to the right on matrix

- Anchoring (text accompanying or instead of number)
  - 5 points or fewer should be anchored with no number
  - Long scales may have text at the ends, but in any case need explanation (10 is good)

- Slider with hidden scale. Nice but don't always work for user

- Impact of culture
  - Some people tend to score higher than others
  - Often seen with different countries but ethnicity and personality also sources
  - Usually best to show differences than to try to correct

- Mid points
  - Some try to force a position
  - My perspective is that people really can be indifferent

Matrix questions

- Commonly used for battery of attributes to be rated, e.g. for importance and performance

- Minimize number of attributes to improve survey experience (response rate, answer quality).
  - Try to keep to single screen for moderate monitor resolution
  - Sometimes a challenge with internal stakeholders who think people can distinguish and care about subtle differences
  - Perhaps question can be split
  - Use pre-testing to eliminate or combine.
  - [Advanced] Use pilot or multiple waves and factor analysis to reduce

- Use layout to improve survey experience
  - Repeat headings
  - Rows with different shading

- Not Applicable – judgment needed
  - Risk of gathering invalid data if question really doesn't apply
                vs
  - Risk of lazy survey taker

- [Advanced] Straight-lining or random responses
  - Straight-lining can be minimized through validation or flagged for review
  - Random responses can be minimized through reversing wording

Open-ended questions (essay / text box)

- Use to gather additional information and also to allow for situations where survey taker thinks that they are being boxed in or survey isn't a fit.

- Results can be used in numerical analysis (if coded) or simply for additional commentary.

- Can limit the amount of text through the size of the box

- Good use of open-end: (use logic to display based on previous response)

- Don't use open-ends instead of questions that should be asked other ways
  – You create unnecessary work for the survey taker
  – You may look stupid
  – You create unnecessary work for yourself – coding, text analysis

Required responses

- Minimize use of required questions through creating an engaging survey

- Be thoughtful about requiring information that some consider sensitive

- Tradeoffs between response rate and valid data, but don't look stupid to survey taker *(why do they want to know that?)*

- Take care with the 'Required' flag

Demographics / Firmographics

- Usually several questions using combination of single and multiple choice, occasionally entry boxes

- Questions vary with purpose of survey.
  - Don't include more than you need.
  - If you can do something with the data – great.
    - Messages
    - How they find information
    - Product changes
  - If knowing the differences might lead to further investigation – that's OK too
  - If not, it's just "nice to have"

- Remember, demographics are less of a definer than in the past

- Before asking, remind survey takers that these questions are just for classification purposes and results will only be reported in aggregate

- Use 'Prefer not to say' option for sensitive questions

Demographics – age and income

Age

- Don't ask for date of birth (privacy issue)
- Don't ask for age unless there is a very good reason
- Ask for age bracket
- Allow 'prefer not to answer'

Income

- Use income brackets
- Allow 'prefer not to answer'

Survey ending

- Include opportunity for survey taker to comment on the survey.
  - Can just be an open-end text box

- Thank the survey taker.

- Can redirect to your site
  - 'Close this window' generally doesn't work

Questionnaires - summary

- Keep it as short as possible
- Wording is important
- Don't use complex question types just because you can
- Use open-ends (sparingly) and other/specifies
- Allow of N/A, Don't Know, Prefer Not to Answer where possible
- Don't overuse required
- Use survey logic to improve quality of results and survey taking experience
- It's a conversation – introduce, be polite, thank

To evaluate the presentation visit http://sgiz.mobi/s3/aacdcd6abb0a

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