

Words Matter

Primer on Question Design

READ THE BOOK!

- Seriously, this is much more complicated than you think.
- There are so many people with experience writing bad questions that they think they know how to do it.

Initial Issues

- Mode and Tool Limitations
- Reuse of questions
- Motivation to Answer
- What information do you want?

Mode and Tool Limitations

- Mode means: in-person, phone, internet, mail, sms, etc.
- Sometimes you can choose and sometimes you can't.
- There are different costs per-response in each.
- Mode choice is often determined by your population list:
 - If you only have email, then you do an email survey.
 - If you have postal, you can match on other data for about \$1 - \$10 each.

Mode and Tool Limitations

A common model is to use multi-mode:

- Postcard
- Postcard with link to internet survey (x2)
- Mail survey with link
- Phone survey (Calling Schedule)
- In-person

Good data means well understood sampling method with follow-up to reduce non-participation bias. Large numbers of responses can't fix this.

Reuse of questions

We reuse a lot of questions for good and bad reasons:

- Question was on previous survey and it allows us to look for changes over time.
- Question in reference survey and can be used for post sampling stratification.
- Question was pre-tested and used without incident.

Reuse often allows poor quality questions to propagate.

Motivation

- If interested in the topic
- If answering does not require too much effort
- If they know how long it will take
- If it isn't too personal (financial)
- If it isn't embarrassing (sex)

What information do you want?

- Questions should link to a decision.
 - Stop or start doing something.
 - Ideally, threshold values pre-decided.
- Because I'm curious is not a reason
- Needed for post-sampling stratification
- The nature of the information need determines the form of the question:
 - Factual vs opinion
 - Precision requirements.

Open vs Closed

- Open mean a box that you write or type in
- Closed means control over how you respond
 - Multiple choice
 - Number in a box
 - Date
 - Likert (1-5)/ Ordinal

Open vs Closed

- Open requires more respondent effort
 - More likely to be skipped or produce more missing values when self-administered.
 - You learn the language the people use.
- Open requires more analytic effort
 - You need to code them to analyze
 - You need to interpret what they said
- Open does not frame or prompt as much.

Common Pattern

- Start with open-response
- Keep track of how people respond – there will be patterns.
- The open-responses will drive closed responses.
- Lets you know the language they use to describe things.

Example Open-response

"Please tell us what item of furniture, for example a table, are in the room with you right now."

- "coffee table"
- "davenport"
- "side table"

The person is probably East Coast and at least 65.

Another Example

"What do you wear on your feet while taking a shower in a gym or other public shower?"

- "Shower shoes"
- "Flip flops"
- "Thongs"

What you learn on an open-response test

- Region, age, culture specific language
- The words that you use that are expert language
- Upper and lower bounds on quantities.

Use this to construct a closed-response test where the options cover about 90% of the responses.

Real World Example

- Energy Efficiency used the same basket of behavior questions and equipment questions for a long while.
- We did an open-response
 - Found many new behaviors, more common than the standards.
 - Found what expert language was confusing (Stove vs range vs oven vs cook top)

Question Components

- Stem (the question)
- Directions (in years)
- Answer space
- Other decoration (Layout graphics, typeface)

Will focus on words now

- Make sure question applies
- Technically accurate
- One question at a time. No compound questions.
- Simple, Hemingway words.
- Concrete words. Don't require math.
- Minimal sentences.
- Simple complete sentences.
- No means no.
- Stem matches answer space

Make sure question applies

- Don't ask my shoe size until you know I have feet.
- This is why surveys have skip patterns. "If you answered yes to question 3 . . ."
- Harder in paper self-administered but easy with electronic.

Cautions

- People may not respond or quit if they get one of these.
- An earlier mismark or misunderstanding may trap you in part of the survey.

The huge one used to be “race”

Technically accurate

Book gives description about horses being measured hands rather than feet.

- Sometimes technically accurate involves expert language
- Example: Does your house have 220W service?
 - Ask more than one question to triangulate.
 - Do you have an electric stove top?
 - Do you have an stand alone, not stack-able, clothes dryer?

One question at a time. No compound questions.

Instead of: "Have you stopped beating your wife?" Yes/No

Ask two questions: "Did you ever beat your wife?", "If you answered yes to the previous question, have you beat your wife in the last month?"

Caution

- Just because you think two things go together does not mean they always go together.
 - Knife and fork, spoon and fork, spoon and chopsticks?
 - Check your bias at the door

Simple, Hemingway words.

- No expert words
- No college words
- No acronyms

This is why we test questions with open-response first. This is why we test questions on a trusted non-expert (Mom).

Concrete words. Don't require math.

"On average, how many times a week do you exercise?"

- On average gives aspiration. "last week" is concrete.
- What is exercise? physical activity Where you were out of breath or had difficulty carrying on a conversation? Went to the gym.

Minimal sentences.

- Prune to the shortest sentence possible.
- Any stray word can be the source of confusion.
- Any stray word can change the interpretation.

Caution

- Use your ear
- NO equivocation, same word used two different ways.
- No elegant variation.

Read the McCloskey Book.

Simple complete sentences.

- Not just grammatically complete
- Should not require information from other questions to answer.
- Small reading mistakes should not matter.
- If you have to read it twice to figure it out – not simple or complete.

No means no.

- Stop not noting your nots.
- [https://www.dallasnews.com/news/watchdog/2019/09/26/ye
s-means-no-and-no-means-yes-in-coming-vote-on-a-future-
state-income-tax/](https://www.dallasnews.com/news/watchdog/2019/09/26/yes-means-no-and-no-means-yes-in-coming-vote-on-a-future-state-income-tax/)

Stem matches answer space

If the question asks for pounds the answer space should not be in ounces.

Lets Try a Few

- Make sure question applies
- Technically accurate
- One question at a time. No compound questions.
- Simple, Hemingway words.
- Concrete words. Don't require math.
- Minimal sentences.
- Simple complete sentences.
- No means no.
- Stem matches answer space

Have any of the following student support services been challenging to access since the transition to remote learning? (Check all that apply.)

- Student Health and Counseling (SHAC),
- Food Pantry,
- University Housing,
- Career services,
- Financial Aid,
- Student Financial Services,
- Advising,
- Technology Support - OIT HelpDesk,
- Internships or practicum placements,
- Other (please specify)

Let us know if you are having trouble because of the shelter-in-place order. There are community organizations that can help and we can connect you.

- I am homeless or couch surfing.;
- I have to take care of family members or children in the household. ;
- I have food insecurity.;
- I can't pay my rent.;
- There is no quiet space in the home.;
- I or someone in household is needing additional day-to-day support (e.g., grocery shopping, providing child care, social/emotional care, etc).

Please let us know if you have experienced any of the following challenges with access to technology? (Check all that apply.)

- I don't have access to a reliable digital device (e.g. laptop, mobile device),
- I don't have access to library resources,
- I don't have access to specialized software for my classes (e.g. GIS software, Adobe products, statistical packages),
- I don't have access to reliable internet service,
- I don't have access to reliable communication software/tools (e.g. Zoom, Skype, Google), Other (please specify)

Let us know about any technology or internet connectivity issues we can help you with.

- My internet service is unreliable or insufficient for remote learning.;
- I don't have a webcam or microphone for my computer.;
- Not enough, or any, computers in home for remote learning.;
- I need to print at home but can't.;
- I Don't know how to use the technology (Zoom, D2L, etc.);