Overview of Questionnaire Design Process

- Determine purpose / objective / topic 🡪 Construct

- Select mode 🡪

- Develop analysis plan 🡪

- Gather or write questions 🡪 Measurement

- Pretest / test survey questions 🡪

- Organize questions into a questionnaire 🡪 Responses

Week 2:

Comprehension

Comprehension of Q 🡪 Retrieval of info 🡪 Judgement & Estimation 🡪 Reporting an Answer

-Misunderstand Q

-Not record (encode) relevant events in memory

-Forget relevant events

-Take shortcuts: satisficing(acceptable but not optimal answers), acquiescence

-Intentionally misreport: social desirability

Problems in Comprehension:

Lexical (pretesting) -individual words: context- question, visual

Semantic(definitions)- whole Q : mapping to own situation, clarification

Pragmatic(block unintended inferences)-intention : cooperative principles

[Filter Q: Qs that determine follow up Qs and path]

Maxims of Cooperative principles:

Quantity

Quality

Relation

Manner

Retrieval:

Working Memory- Short memory

Long Term Memory (LTM) : Episodic

: Semantic

: Procedural

-Forgetting: interference and decay

-Encoding:

Judgement:

Compensating for imprecise or incomplete memory

-availability heuristic – instance recollection

-frequency estimation

Frequency estimation:

recall and count: underestimation

rate-based: overestimation

impression based: overestimation- 0 to infinite

JUDGEMENT:

Result of judgment and estimation: imprecise

Not match options

Judgment to be transformed: number (vague)

One (or more) options provided

Week 4:

Attitudinal Qs

Not verifiable by external observation or records

Ask about subjective psychological state:

:Attitudes –evaluative component

:Beliefs – cognitive

: Behavioral intents – Behavioral

Attitudes:

* Pre-existing
* retrievable
* stable
* predictive of behaviors
* resistant to persuasion

Attitudes- alternate view

* make up as you go
* construct on the fly
* evaluative judgments formed on the spot
* no stable memory stored in memory

Theories on Divergent Views:

RASINSKI’s ways

* Attitude and attitude expressions- single measure imperfect
* Some on the spot like Zaller; others from memory & most a combination

SCHWARZ’s ways:

* No attitude- judgment based on what available to R
* 1-stable attitude- similar evaluations
* 2-strong attitude- highly accessible info
* 3-context attitude- contextual info
* 4-nonattitude- same # of conflicting info

Context effects:

* - Question wordings
* Prior/later questions
* SAQ: presentation of questionnaire
* IAQ: interviewer’s characteristics, behaviors, introduction of survey
* External factors such as weather, mood

Other issues:

* Specific or global evaluations
* Agree-disagree scales
* Filtering R who don’t know much
* Hypothetical Qs

CONTEXT EFFECTS

Influences: comprehension, judgment & evaluation

Aspects: Subject, interviewer, setting, instructions, pictures, Q wording, response options, Q order

Comprehension: assimilation, contrast. So, avoid ambiguous and vague terms; specifics

Retrieval: => assimilation or contrast

Judgment :

* Schwarz and Bless Model- inclusion/ exclusion model- chronically and temporarily accessible elements of memory for construction- representation of target (assimilation and subtraction) & standard (comparison)

Reporting and Mapping:

* Assimilation – grouped Qs
* Contrast- anchor at rating scale

Impact of Context:

* Threat to statistics and trend analysis
* Interaction with demographic characteristics
* Effects on prev Qs (main focus), interviewer, setting and historical context

Remedy:

Borrow Qs- pretesting- data checking on field- analyses- variables to mediate impact-

GENERAL vs SPECIFIV EVALUATIONS

General Q- R can think of anything- marriage example- Grice’s Quantity Maxim (don’t be redundant)- ask specific Qs only- ask general (if to be asked) before specific

AGREE DISAGREE SCALES

Advantages:

* Ease of administration: faster; fewer “don’t knows” than yes-no; Rs preferred format

Diadvantages:

* Acquiescence bias- R to appear polite, deferential, satisficing
* Multi barreled
* Disagree end is ambiguous

Issues – Example and Remedy (Construct Specific Choices):

* Abortion – legal/ illegal
* Views on Abortion- how certain?

Krosnick’s Verdict:

* no agree- disagree

DON’T KNOW:

Offer filters:

* Full - have opinion on that?
* Quasi – agree-disagree or an opinion?
* Issue- attitude for topics with little knowledge- Views of Converse and Presser
* Increasing strengths- quasi, blunt full, Justified Full

Krosnicks’ View:

* Cognitive Models- Optimizing
* Interpret Q- unclear meaning
* Search Memory- no info- \*
* Integrate info to judgment- ambivalence- conflicting info- opinion not justified
* Translate judgment to response Alternatives- alternative meaning unclear or none match judgment

\*push ppl for opinions all, except this to get meaningful responses

* Cognitive Model- Satisficing
* Cues to skip interpretation or retrieval yet justify answer
* Low ability, motivation, high cognitive demands
* Push for opinions, meaningful answers

Offering vs Omitting DK:

* McClendon & Alwin- no more unreliability
* Schuman & Presser- not strengthen constraints correlations
* McClendon- no reduced acquiescence bias or response order effects
* Krosnick, et al.- equal responsiveness to price manipulation; belief and attitude predictors just as powerful

Krosnick’s Verdict:

* Not lack of info
* Ambivalence, intimidation, self-image protection, satisficing
* Omit DK filters and tell R
* Result- informative data

RESPONSE ORDER EFFECTS:

Krosnick & Alwin:

* cognitive sophistication- primacy effects in both forward and backward orders- low sophistication groups: more primacy effect due to satisficing
* visual- cluttered after first few options- primacy effect
* auditory- recency effects- last few to be endorsed
* who administers than mode

Meta Analysis:

* Holbrook, Krosnick, Moore & Torangeau
* Effects
* largest predictor – Q comprehension difficulty- word length, #words per sentence, #sentences
* response option length
* position in questionnaire
* Question type
* Seemingly open ended: least recency
* Delayed processing: most recency
* Seemingly yes-no

Ideal/ ways to respond:

* Consider all options and choose best answer
* Select first option and update as going through list
* Read part of list and select answer

Response Order Effects:

* Common. Large . (Krosnick & Miller- election ballots)
* Direction depends on order of processing (mode, pace, type- scale or unordered)
* Magnitude depends on: processing capacity, motivation, fuzziness

RESPONSE OPTIONS & SCALES

Type of Qs:

* Open ended for verbatim] - use sparingly
* Open ended for numeric ] - for sensitive behaviors
* Close ends (yes-no)- label and branching for ordered, randomize or use R expected order
* Frequency
* Attitudinal

Open Ended Qs:

* Adv: std Qs, fuller info sought, unique ans, no alternatives, free exchange of ideas without bias
* Disadv: expensive, time consuming, harder to analyze, coding is time consuming , costly and error prone, time for administration- interviewer training, I/R typing, R thinking and expression

Frequency Scales:

* Schwarz

Rating Scales-

* Fully Labeled Unipolar- eg. Happy (Extremely-5-Not)
* End Labeled Unipolar- eg. Happy (Extremely-2-Not)
* Fully Labeled Bipolar- eg. Happy (Extremely-5-Extremely)
* End Labeled Bipolar- eg. Happy (Extremely-2-Extremely)

Design Decisions:

* # of scale points
* Inclusion of middle alternative
* Verbal Labeling
* Numeric Labeling

Evaluation Dimension:

* Completion Errors- longer better than shorter
* Time - longer better than shorter
* Reliability, Correlation Validity, Inter Rater Agreement, Object Differentiation, Context Effects,- Bipolar 7, Unipolar 5
* Natural Discrimination- Bipolar 7

Middle Alternative:

* Krosnick & Fabrigar- No- satisficing
* BSW- yes
* Krosnick & Presser- Yes
* Recommended in bipolar

Label:

* Unlabeled- needs interpretation
* Labeled- needs reading and interpretation of labels
* More widely spread end points- higher reliability
* Equal spacing presumed- reinforce
* Numeric can reinforce verbal labels or confuse

Ranking-

* Full- 1 to 18
* Partial- choose 3
* Minimal- best of most

Ranking Vs Rating:

* Difficulty:
* Ranking- comparison among many objects
* Rating- one object at a time
* Visual display for ranking needed
* Ranking slow speed and expensive, difficult analysis, forced differentiation
* Translation function- potential clouding of between- individual differences
* Level of data
* Ranking- ordinal
* Rating- interval
* Information gain-
* Ranking- rank order
* Rating- rank order and absolute levels
* Rating better for respondent satisfaction
* Ranking better at Completion time, completion, reliability, validity of factor structure, discriminant validity, correlational validity

Combining Ranking & Rating-

McCurty & Shrun

* rank then rate
* less non differentiation in ratings
* took twice as long for ratings alone (18)
* no testing for improved reliability or validity

Smyth et al.:

* compare mark all that apply to yes no
* non comparable formats
* more responses endorsed with yes-no
* longer time to answer for yes-no
* no acquiescence bias in yes-no
* not much item nonresponse in yes-no

Quiz#1: Week 1:

1. Please indicate whether this is an example of conversational or standardized interviewing.

**Interviewer:** Have you had any expenses on furniture in the past month?

**Respondent:** I bought a floor lamp. Does that count as furniture?

**Interviewer:** Whatever it means to you.

**Respondent:** Then no. I haven't.

2. What are the three main sources of measurement error in surveys?

3. Ideally, when should questionnaire designers and their clients think about the analysis plan?

Quiz#2: Week 2:

Incorrectly Answered Q:   
Which, if any, of the following are true about primacy effects?

Quiz#3: Week 3:

Which of the following statements about recall is true?

Which of these statements about facts and quasi-facts are correct? Multiple correct answers are possible.

"Since January 2015, have you received any grocery vouchers or certificates through a government social service agency?" To answer this question, a respondent has to... [multiple correct answers are possible]

Check all factors that can have an influence on the amount of motivated misreporting to sensitive questions. [multiple correct answers possible]

What are methods that could be used to improve answers to factual questions? [multiple correct answers are possible]

Quiz #5

Wrong Q:

====Which of the following statements are false? (multiple answers possible)

=====Which of theses statements about coding respondent-interviewer interaction is correct? (multiple answers possible)

2nd correct- Which of the following statements is correct when considering the question: "What does the term MOOC mean to you?"

2ndcorrect- Cognitive interviewing is better than behavior coding for identifying which kinds of problems? (multiple answers possible)

- Which of these statements about behavior coding are correct? (multiple answers possible)

- Which of these are commonly used codes in behavior coding? (multiple answers possible)

- Which of these statements about Latent Class Analysis (LCA) are correct? (multiple answers possible)

====Which of these problems could be revealed with the help of a field test that includes interviewer debriefing? (Multiple answers possible)

Retake 3:

Wrong Q:

Which of the following statements are false? (multiple answers possible)

Which of these are commonly used codes in behavior coding? (multiple answers possible)

Which of these statements about Latent Class Analysis (LCA) are correct? (multiple answers possible)

Quiz 4

Which one of these is an example of a bipolar scale?

1-2-3-4-5-6-7

Not at all satisfied-not very satisfied-somewhat satisfied-very satisfied

Very dissatisfied-somewhat dissatisfied-somewhat satisfied-very satisfied

None; these are all unipolar scales

Q2

Which of the following are true about agree/disagree questions? (multiple answers possible)

They minimize acquiescence bias.

They are quick to answer.

They are appealing to respondents.

Q3

A question like "Do you agree, disagree, or do you not have an opinion on that?" is called a...

...blunt full filter.

...justified full filter.

...quasi-filter.

...household screening question.

Q4

Which of the following conditions is likely to increase satisficing compared to the opposite condition? (multiple answers possible)

Respondents have low cognitive ability

Questions are complex or cognitively demanding

Respondents have low motivation to respond

Q5

Attitude questions are less reliable (produce more variability) when...

...there are different, but equal amounts of conflicting and consistent information available to respondents.

...respondents can draw on similar inputs each time they are asked.

...respondents draw on highly accessible information.

Q6

Which of these questions from a course evaluation survey are attitude questions? (multiple answers possible)

How much do you agree or disagree with the following statement? I prefer course material that really challenges me so I can learn new things. Do you strongly agree, agree, neither agree nor disagree, disagree, or strongly disagree?

In the next six months, how likely is it that you will take another course provided by the same instructor? Very unlikely, somewhat unlikely, neither unlikely nor likely, somewhat likely, or very likely?

How often did you use the discussion board on the course website? Never, rarely, some of the time, a good bit of the time, or always?

How helpful were the additional materials provided on the course website in preparing for the final exam? Not at all helpful, a little helpful, somewhat helpful, very helpful, or extremely helpful?

Q7

Which of these statements about attitudes are correct? (multiple answers possible)

Studies found that attitudes can be less stable than previously thought.

The traditional view about attitudes is that they are pre-existing, retrievable, and independent of context and time.

An attitude can be an enduring positive or negative feeling about some person, object, or issue.

Attitudes always include a cognitive and a behavioral component.

Q8

If respondents include prior questions in interpreting and understanding the current questions, this is called...

recency effect.

assimilation effect.

file-drawer effect.

non-attitude.

Q9

In which of these survey modes would you expect to find a primacy effect when presenting a list of unordered response options? (multiple answers possible).

A mail survey

A face-to-face survey, where no show cards are used

A face-to-face survey, where show cards are used

A Web survey

A telephone interview

Q10

Which of theses statements about open-ended questions in surveys are correct? (multiple answers possible)

Whenever possible, use open-ended questions instead of closed questions in your questionnaire.

Open-ended questions are usually faster to administer and therefore cheaper than closed questions.

Open-ended questions can reduce socially desirable responding when asking about frequencies of sensitive behaviors.

Open-ended questions require the respondent to come up with their own answer.

Final

Q1

When designing a paper-and-pencil questionnaire, which of the following possible formatting guidelines are true? [Multiple correct answers possible]

Ask one question at a time

Use narrow columns to encourage more complete reading of words

Use close spacing or shading if you want respondents to consider elements as part of a group

Remove brightness or color of visual elements if you want something not to be noticed.

Place as many questions as possible on one page

Always place demographic questions at the beginning of the questionnaire

Q2

Which of the following statements are true about context effects? [Multiple correct answers possible]

Assimilation effects may be observed when the respondent includes information used to answer prior questions when formulating an answer to the current item

The presentation and order of questions does not affect survey responses

Context effects only appear in self-administered surveys

The presentation and order of response options may affect survey responses

Contrast effects may be observed when the respondent excludes information used to answer prior questions in answering the current item

Q3

Why is pretesting necessary in questionnaire design? [Multiple correct answers possible]

It helps to reduce sampling variance

It reduces non-response error

It detects operationalization errors such as variability across respondents or interviewers

It identifies respondent processing issues that lead to response errors

It identifies instrument features that lead to response errors

Q4

A longer recall period may cause…

A longer reference period

A shorter reference period

Increased measurement error

Decreased measurement error

None of the answers is correct.

Q5

The main source or sources of measurement error are...

Interviewer, respondent, and questionnaire

Interviewer

Questionnaire

Interviewer and respondent

Respondent

Multi-stage sampling procedure

Q6

Which statement about standardized survey interviewing is not true?

The aim of standardized surveys is to standardize the meaning of the question content, not the wording.

Interviewers should avoid directive probes.

Interviewers always read aloud all answer categories.

The aim of standardized interviewing is to eliminate the interviewer as a source of bias.

Q7

Which of Grice’s Maxims can be summarized as "Do not say something that you know is false"?

Maxime of Relation

Maxim of Quality

Maxim of Manner

Maxim of Quantity

Maxim of Response

Q8

The filtering procedure in self-administered questionnaires can be simplified by means of various elements. Which recommendation is NOT such an element?

The numbering of questions can serve as a reference point for respondents.

All tips and instructions for respondents should be bundled and placed at the beginning of the questionnaire.

The targeted use of accentuations (font format, size, color, etc.) steers the attention of the respondent to individual elements.

Accentuations should, as much as possible, be used uniformly.

Q9

The filtering procedures in paper-and-pencil questionnaires can result in “errors of commission”. Such an error...

as a rule, occurs more often than the so-called “error of omission”.

will be even more likely in computerized questionnaires.

as a rule, occurs just as often as the so-called “error of omission”.

as a rule, occurs less often than the so-called “error of omission”.

Q10

Which of the following statements is true? The use of tips and cues...

always leads to a reduction in bias.

helps the respondent to recall events.

is unique to conversational interviewing.

None of these statements is correct.

Q11

Which of the following statements is true? The use of tips and cues...

always leads to a reduction in bias.

helps the respondent to recall events.

is unique to conversational interviewing.

None of these statements is correct.

Q12

Indirect questioning methods such as Randomized Response Technique (RRT):

Improve the statistical efficiency of the estimate.

Do not exhibit any measurement errors and can thus reduce the bias to zero.

Lead to a situation in which only the frequency of the sensitive behaviors across the sample can be estimated.

Q13

Which of the following statements are correct? In surveys on sensitive topics it is preferable... [Multiple correct answers possible]

to repeatedly and insistently refer to the confidentiality and anonymity of the survey.

to test thoroughly which dimensions (privacy, legal consequences, social desirability) are affected and then choose the appropriate survey mode.

to first ask general questions on the topic and then move on to specific questions pertaining to the respondent's own behavior.

to first ask specific questions pertaining to the respondent's own behavior and then move on to more general questions on the topic.

Q14

What are the advantages of standardized interviews relative to conversational interviews? Check all that apply.

They aid comprehension on the part of the respondent.

They increase the likelihood that all respondents receive the same stimulus material.

They result in faster interviews and reduce costs.

They are intended to avoid interviewer effects.

Q15

Which of the following statements are correct? Check all that apply.

While anonymized data permit conclusions about the identity of a respondent, access to this information is limited to specific persons.

While confidential data permit conclusions about the identity of a respondent, access to this information is limited to specific persons.

Confidential data do not permit any conclusions about the identity of a respondent.

Anonymized data do not permit any conclusions about the identity of a respondent.

Q16

Problems retrieving information stored in people’s memories...

can be caused by other similar events.

can be reduced with modern sampling techniques

None of these statements is correct.

can be reduced by the interviewer.

Q17

Assume a questionnaire includes questions on drug use over the past 3 years and a respondent is currently using drugs. Which of the following techniques is LESS likely to reduce the sensitivity of questions as perceived by the respondent?

Limiting the reference period to the past 12 months.

Paraphrasing the question or using trivializing wording.

Using indirect methods, such as ICT or RRT

Changing the survey mode.

Q18

What is/are the advantages of Think-Aloud Interviews? [Multiple correct answers possible]

Minimal interviewer training is required.

No training of the respondents is required.

They are easy for respondents.

They provide a window into how respondents think while answering survey questions.

Q19

The central result of the JPSM 2005 Alumni Study by Kreuter, Presser and Tourangeau (2008) is that... [Multiple correct answers possible]

individual perceptions of sensitivity are central to the estimate of the sensitivity of this feature.

sensitive questions in an online survey tend to be reported more frequently than in a comparable telephone survey

for sensitive questions, indirect questioning, as opposed to conventional, direct questioning, leads to higher estimates of prevalence.

for sensitive questions, higher estimates of prevalence are gained using the ICT than when using the RRT.

None of the statements is correct.

Q20

In designing a self-administered questionnaire... [Multiple correct answers possible]

it is preferable to present the questions vertically

it is recommended that, in web-based questionnaires, questions cover the entire width of the screen to the extent possible.

it is recommended that the question stem and answer categories are on the same page.

it is preferable to ask two questions at the same time, whenever possible, in order to minimize stress for the respondent.

None of the statements is correct.

Q21

In answering a survey question, a respondent who was “satisficing” would be taking the following approach:

The respondent seeks to minimize his or her effort on himself and uses just enough information to formulate a plausible answer

The respondent seeks to formulate an answer that will make the interviewer happy.

The respondent seeks to formulate an answer that will make the researcher happy.

The respondent seeks to provide the most thoughtful answer possible, using as much information as they can recall in order to formulate an answer

Q22

If survey responses to a target question are affected by questions that come before it this is called...

a wording effect

a question order effect

a poorly written question

a response order effect

Q23

Please read the following survey question:

”How often would you like to receive emails about blood donations?”

The response categories were a. Every week, b. Once a month, c. Four times a year, or d. Once a year?

Which of the following problems does this question have?

Recall error

None. It is a perfectly fine question.

Unwarranted Presupposition

Ambiguity

Vagueness

Q24

What is the most likely reason that respondents interrupted the interviewer so many times in the question about payment for a doctor visits in the Oksenberg, Cannell & Kalton (1991) study discussed in Unit #5?

There were not enough answer categories.

None of these.

There were technical difficulties with the skip pattern [filtering].

There are some instructions after the question. It would be natural for respondents to start answering after the main part of the question.

Q25

Which of the following statements about expert reviews is false?

There is no input from actual respondents

The outcome of expert reviews depends on the reviewer.

Experts are only able to detect wording problems

Expert reviews are cost effective.

Ans:

2.

Which of the following statements are true about context effects? [Multiple correct answers possible]

A longer recall period may cause…

Correct

4.

A longer recall period may cause…

5.

The main source or sources of measurement error are...

9

The filtering procedures in paper-and-pencil questionnaires can result in “errors of commission”. Such an error...

11.

Which of the following are components of the Response-Process Model? [Multiple correct answers possible]

12.

Indirect questioning methods such as Randomized Response Technique (RRT):

14. What are the advantages of standardized interviews relative to conversational interviews? Check all that apply.

15.

Which of the following statements are correct? Check all that apply.

Correct

16.

Problems retrieving information stored in people’s memories...

21. In answering a survey question, a respondent who was “satisficing” would be taking the following approach:

22. right first time

If survey responses to a target question are affected by questions that come before it this is called...

25. Which of the following statements about expert reviews is false?