Question Wording

GESIS Survey Guidelines

Timo Lenzner and Natalja Menold

gesis

Leibniz Institute
for the Social Sciences

These slides are based on the GESIS Survey Guidelines paper about question wording:

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A complete list of all references used on these slides can be found in the above mentioned Survey Guideline paper.

Overview

1. What are "good" survey questions?

2. The survey response process

3. How can the comprehensibility of survey questions be improved?

4. How can the recall of relevant information and the formation of judgments be facilitated?

5. How can it be made easier for respondents to fit their "internally" determined response into the prescribed response format?

1. What are „good" survey questions

- Good survey questions should be:

  ▶ interpreted by all respondents in the manner intended by the questionnaire designer

  ▶ as easy as possible to understand and to answer

- Prerequisite for error-free data collection

- Question wording plays a decisive role in this regard

- These slides are structured along the four stages of the cognitive response process

(Fowler, 1992)

2. The survey response process

- When answering a survey question, respondents have to carry out four cognitive tasks:

  (1) **Comprehend** the question

  (2) **Retrieve** relevant information from long-term memory

  (3) Use this information to make a **judgment**

  (4) **Select** and **report** an answer

- Depending on how survey questions are formulated, each of these tasks may be more or less difficult to perform

(Strack & Martin, 1987; Tourangeau, 1984; Tourangeau et al., 2000)

3. Improving comprehensibility

- Avoid **unfamiliar or uncommon terms**, such as:

  ▶ foreign words

  ▶ technical terms

  ▶ abbreviations

  ▶ acronyms

  ▶ rare terms

- Replace uncommon terms with more common synonyms or (if these cannot be found) define the uncommon terms

- Example: "How often in the last four weeks have you had *somatic* (better: *physical*) health problems?"

(Graesser et al., 2006; Lenzner, 2011)

3. Improving comprehensibility

- Avoid **imprecise relative terms**, such as:
  - "often"
  - "recently"
  - "considerably"

- They refer to an underlying continuum, but their exact position on this continuum is not clear ($\rightarrow$ and thus they may be interpreted in different ways)

- Example: "Have you visited any doctors *recently* (better: *in the past four weeks*)?"

(Graesser et al., 2006; Lenzner, 2011)

3. Improving comprehensibility

- Avoid **abstract and ambiguous terms**

- Example: "How often do you attend *cultural events* (better: *such as concerts, readings, or theatre performances*) in your free time?"

- Without the examples, some respondents may only think of events such as theatre performances, while others may think only of pop concerts

- Some respondents may also find it hard to decide how to interpret the term (if no examples are provided) and therefore leave the question unanswered

- To increase question comprehensibility, concrete and specific terms should be used wherever possible

(Lenzner at al., 2011; Lenzner, 2012; Tourangeau et al., 2014)

3. Improving comprehensibility

- Avoid **complex sentence structures**
  - ▶ Convert passive sentences into active sentences
  - ▶ Avoid the nominalisation of verbs, that is, the transformation of verbs into nouns (e.g., *acquire* → *acquisition*)
- Example (nominalisation):

  "To what extent do you agree with the following statement? I have enough time during working hours for the *acquisition* of new knowledge."

- Example (avoiding nominalisation):

  "I have enough time during working hours to *acquire* new knowledge."

(Lenzner at al., 2010)

3. Improving comprehensibility

- Avoid **hypothetical questions**

- These require respondents to mentally put themselves into an imaginary situation, to keep it in their short-term memory, and then to answer the question from this hypothetical situation

- Example: "Suppose you were the Federal Chancellor, what problem in this country would you tackle first?"

- Better: "What problem should the Federal Government tackle first?"

(Porst, 2008)

3. Improving comprehensibility

- Avoid **double-barrelled questions**

- These are questions that address two, or even more, different matters (stimuli)

- Example: "To what extent do you agree with the following statement? The State must ensure that people have a good livelihood even in case of *sickness*, *need*, or *unemployment* and in *old age*."

- What should respondents answer who are in favour of State support in the case of "sickness" and "need" but not in the case of "unemployment" and in "old age"?

- It is better to present one stimuli at a time

3. Improving comprehensibility

- Avoid **negations and double negatives**

- Double negatives occur, for example, whenever respondents must respond to a negatively formulated statement by means of an agreement scale (*completely agree – completely disagree*)

- Example: "To what extent do you agree with the following statement? Poorer countries should *not* be expected to make less effort to protect the environment than richer countries."

- To express a *positive* opinion, respondents must *disagree* with the statement

- Negations (e.g., "no", "none") should be avoided as they can easily be overlooked

(Dillman et al., 2009; Foddy, 1993; Fowler, 2011)

3. Improving comprehensibility

- Avoid **(implicit) presuppositions**

- These are present when the question text regards as given a situation that may not necessarily apply to the respondents

- Example: "Family life often suffers *because men concentrate too much on their work*."

- Respondents who are not of the opinion that men concentrate too much on their work cannot answer this question because neither "agree" nor "disagree" expresses their actual opinion

- The question should be preceded by a filter question asking whether respondents think that men concentrate too much on their work

(Dillman et al., 2009; Fillmore, 1999)

3. Improving comprehensibility

- Avoid **leading questions**

- These are questions that suggest or provoke a certain response

- Example: "Leading scientists are of the opinion that car emissions can impair children's growth. Do you think this opinion is correct or do you think it is incorrect?"

- Mentioning "leading scientists" may provoke conforming responses

(Porst, 2008)

4. Facilitating recall and judgment

- Ideally, respondents "know" the answer to a question (attitude or fact) and simply recall relevant information from long-term memory

- However, respondents rarely have direct access to this information Exceptions:

  ▸ "On what date were you born?"

  ▸ "What is your sex?"

- Usually, respondents have to search their memories for relevant information to generate an answer

(Porst, 2008)

4. Facilitating recall and judgment

- There is a strong relation between retrieval and judgment
- "How often have you been to the dentist during the last year?"
  - ▶ Recall events (retrieval) and sum events up (judgment)
- Judgment includes processes such as
  - ▶ assessment of the completeness or accuracy of retrieval
  - ▶ inferences based on the process of retrieval
  - ▶ inferences that fill in gaps in what is recalled
  - ▶ estimates that adjust for omissions in retrieval

4. Facilitating recall and judgment

- For **attitudinal questions**, respondents either have to retrieve previously formed opinions or relevant information to generate an opinion

- Determinants: Personal importance of the issue and experience with attitude object

- Examples:
    - "Do you think the use of marijuana should be made legal or not?"
    - "Are you for or against sex education in public schools?"

4. Facilitating recall and judgment

- For **questions on behaviors**, respondents have to recall relevant events, date them correctly, and count or estimate the number of events

- Examples:

  - "How often have you been to the theater during the last 6 months?"

  - "How often have you been to the dentist during the last year?"

  - "Since January 1st 2014, how many days have you been away from work because of illness?"

- Accuracy of information retrieval is primarily determined by two things: elapsed time and impact (salience).

(Cannell et al., 1977)

4. Facilitating recall and judgment

- Advice 1: **Choose a suitable time frame for the question**
- The time frame should be comparatively short when:

  ▶ you ask about minor events (i.e., with minimal impact), for example: "How many times have you eaten ready meals in the past *5 days*?" (instead of *30 days*, for example)

  ▶ you ask about behavior that is frequent but irregular, for example: "How many text messages have you sent in the past *3 days*?" (instead of *4 weeks*, for example)

  ▶ you ask about a regular behavior, for example: "How many times have you been to the hairdresser in the past *3 months*?" (instead of *12 months*, for example)

4. Facilitating recall and judgment

- The time frame of a question should be longer when:

  - ▶ the question relates to very significant or important events that are easily recalled and that do not occur often, for example: "How many times have you moved house in the past *10 years*?"

  - ▶ the question asks about a behavior that is infrequent or irregular, for example: "How many times have you participated in a medical screening in the past *12 months*?"

4. Facilitating recall and judgment

- Advice 2: **Use unambiguous reference periods**

- Reference periods should be as specific as possible
("recently" $\Rightarrow$ "during the last four weeks" $\Rightarrow$ "since September 1st")

- BUT: Using dates (e.g., "since September 1st") is often of limited value, because dates are not part of the event representations stored in memory

4. Facilitating recall and judgment

- Advice 3: **Divide complex questions into several individual ones**

- Example: "How many different doctors have you seen in the last 12 months?"

  vs.

  1. "Have you seen any primary care doctors or general practitioners in the past 12 months? (If yes: How many?)"

  2. "Have you seen any specialists in the past 12 months? (If yes: How many?)"

  3. "Have you seen any homoeopaths in the past 12 months (If yes: How many?)"

  4. "How many other doctors that you have not mentioned have you seen in the past 12 months?"

<div align="right">(Fowler & Cosenza, 2008)</div>

5. Facilitating response selection

- Survey questions use a variety of response formats

- Survey designers' choice of response format can strongly affect survey results

- There are three major response formats:

  - Open-ended questions

  - Closed-ended questions, with rating scales

  - Closed-ended questions, without rating scales

- The following slides focus on closed-ended questions with ordered or unordered lists (open-ended questions and closed-ended question with rating scales are dealt with in detail in other contributions to the *GESIS Survey Guidelines*)

(Couper et al., 2004; Tourangeau et al., 2004, 2007)

5. Facilitating response selection

- Advice 1: **Response categories should match the question**

Example:

"Please indicate for each of the following organizations, **whether** you have been actively involved in the organization during the past 12 months."

> Requires yes/no response

	often	sometimes	rarely	never
a. Sports club	○	○	○	○
b. Trade union	○	○	○	○
c. Political party	○	○	○	○
d. …	○	○	○	○

5. Facilitating response selection

- Advice 2: **Response categories should be exhaustive and mutually exclusive**

Example:

"How many university lectures did you attend during the last three semesters?"

○ None	○ None
○ 1	○ 1
○ **2 to 4**	○ 2 to 4
○ **4 to 6**	○ **5 to 6**
	○ **7 or more**

5. Facilitating response selection

- Advice 3: **Response categories should be logically/systematically ordered**

Example:

"Since you started taking the medication, have your symptoms…"

- ❍ disappeared completely,
- ❍ improved slightly,
- ❍ improved significantly, or
- ❍ not changed at all?

5. Facilitating response selection

- Advice 4: **Response categories should not presuppose regularity**

  Example:

  "How often do you withdraw money from an ATM? – Never, Less than once a month, Once a month, Every two weeks, Every week"

  vs.

  "How often have you withdrawn money from an ATM in the past month? – Never, Once, Two or three times, Four times or more"

  (Fowler & Cosenza, 2008)

Final remarks

- „Even after years of experience, no expert can write a perfect questionnaire…" […]
- „If you do not have the resources to **pilot-test your questionnaire**, don't do the study." (Sudman & Bradburn, 1982, p. 283)

- Certainty as to whether a survey question works as intended and is easy to understand and answer is usually achieved only by conducting a **cognitive pretest** ($\rightarrow$ *GESIS Survey Guideline*)

Thank you for your attention.