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#### **Question Wording**

#### **GESIS Survey Guidelines**

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

Lenzner, T. and Menold, N. (2016). Question Wording. GESIS Survey Guidelines. Mannheim, Germany: GESIS – Leibniz Institute for the Social Sciences. doi: 10.15465/gesis-sg\_en\_017

Please cite the slides as:

Lenzner, T. and Menold, N. (2019). Slide Set: Question Wording. GESIS Survey Guidelines. Mannheim, Germany: GESIS – Leibniz Institute for the Social Sciences.

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)





- 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)





- 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 (→ 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)





- 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



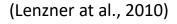


- Avoid complex sentence structures
  - Convert passive sentences into active sentences
  - Avoid the nominalisation of verbs, that is, the transformation of verbs into nouns (e.g., acquire → acquisition)
- Example (nominalisation):

"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."







- 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)





- 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





- 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)





- 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)





- 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)





- 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)





- 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



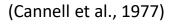


- For attitudinal questions, respondents either have to retrieve previously formed opinions or relevant information to generate an opinion
- Determinants: Personal importance of the issue and experience with attitude object
- Examples:
  - "Do you think the use of marijuana should be made legal or not?"
  - "Are you for or against sex education in public schools?"





- 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).







- 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)





- 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?"





- Advice 2: Use unambiguous reference periods
- Reference periods should be as specific as possible ("recently" ⇒ "during the last four weeks" ⇒ "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





- 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?"

(Fowler & Cosenza, 2008)





- 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)





 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."

	often	sometimes	rarely	never
a. Sports club	Ο	0	Ο	Ο
b. Trade union	Ο	0	Ο	Ο
c. Political party	Ο	0	Ο	Ο
d	Ο	Ο	0	0



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Requires

yes/no

response



 Advice 2: Response categories should be exhaustive and mutually exclusive

Example:

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

O None	O None
<b>O</b> 1	<b>O</b> 1
<b>O</b> 2 to 4	<b>O</b> 2 to 4
<b>O</b> 4 to 6	<b>O</b> 5 to 6
	<b>O</b> 7 or more





 Advice 3: Response categories should be logically/systematically ordered

Example:

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

O disappeared completely,

- O improved slightly,
- lacksquare O improved significantly, or  $\checkmark$ 
  - O not changed at all?





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)





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 (→ GESIS Survey Guideline)



#### Thank you for your attention.

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