

**“The answers to questions are measures. What do you want to measure?”**

## LIKERT SCALE (represents attitudes)

**Rating scales.** There is a type of ordered closed question that is commonly used when the researcher seeks to locate a respondent’s opinion - the favourability of an item, the frequency of behaviour etc. - on a rating scale with a limited number of points. There is a wide variety of response scales and they could be characterised by **type of labelling** used (verbal or numeric), **number of scale points** (even or odd), **dimensionality** (bipolar or unipolar) and **direction** (ascending or descending). Some examples of scales are reported below.

Verbal scales:

Strongly Disagree    Disagree    Agree    Strongly Agree

□                      □                      □                      □

Numeric (endpoint-labelled) scales:

Strongly disagree □ □ □ □ □ □ □ □ Strongly agree

Even Scales:

Unimportant □ □ □ □ □ □ □ □ Very important

Odd Scales:

Unimportant □ □ □ □ □ □ □ □ Very important

	+				-
<b>Adequacy</b>	More than adequate	Adequate			
<b>Agreement</b>	Strongly agree	Agree		Disagree	Strongly disagree
<b>Extent</b>	To a large extent	Moderate extent	No extent	Slight extent	Not at all
<b>Impact on action</b>	Encourages	Does not deter	Mild deterrent	Strong deterrent	Absolute deterrent
<b>Impact, absolute</b>	Positive impact	Slightly positive	No impact	Slightly negative	Negative impact
<b>Importance</b>	Very important	Important	Neutral	Somewhat	Not important
<b>Priority</b>	Maximum	High priority	Neutral	Low priority	Minimum
<b>Quality of evidence</b>	Very strong	Strong	Medium	Weak	Very weak
<b>Relation</b>	Closely related	Related		Not related	Not at all
<b>This is true...</b>	Most of the time	Often	Sometimes	Seldom	Rarely
<b>Δ</b>	Positive, improve		No change		Negative, worsen

## **DICHOTOMOUS RESPONSES**

- (yes / no)
- (approve / disapprove) / (agree / disagree)
- (true / false)
- (more important / less important)

Pros:

- questions easy to write
- can be used to measure a wide range of different constructs efficiently—uses the same set of responses
- faster for the respondent

Cons:

- danger of respondents “acquiescing” or endorsing an assertion made in question regardless of content
- must take care with the possibility of multiple interpretations give lack of neutral response

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## **RANKING**

Please rank the following in order of importance from 1 to 4 where 1 is most important to you and 4 is least important to you

- |                       |                          |
|-----------------------|--------------------------|
| Speed of Service      | <input type="checkbox"/> |
| Ease of Parking       | <input type="checkbox"/> |
| Cleanliness           | <input type="checkbox"/> |
| Friendliness of Staff | <input type="checkbox"/> |

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## **CHECKLIST**

*“Which of the following policy concerns should be prioritized in the coming years? (PICK n)”*

- ...
- 
- 
-

## Other tips and tricks

### Questions:

- The ideal question accomplishes three goals:
  - It measures the underlying concept it is intended to tap
  - It doesn't measure other concepts
  - It means the same thing to all respondents
- Short and sweet! Don't arrive at "fatigue point"
- Avoid hypothetical questions, two-part questions, open-ended questions, leading questions, biased questions...
- Words used in questions should be understandable to all respondents, and the meanings imputed to those words should be as universal as possible. NO technical terms and jargon, and NO vague and imprecise terms.
- Define things very specifically (i.e. DON'T ask what is your income, ASK what was your total household income before tax in 2015)
- Provide reference frames (i.e. periods of time and places - make sure everyone is responding to the same time and place).
- Words to AVOID: because they lack an appropriate objective dimension:
  - *NOT* (can easily be missed)
  - *ever, always, and never* (indefinite time horizon)
  - *often, occasionally, usually, regularly, generally, rarely, normally, good, bad* (lack appropriate objective dimension)
- If the question is closed-ended, response options must be mutually exclusive and exhaustive (including, if necessary, a 'don't know'/'unsure'/'NA' option)
- For ratings, the question form should be direct rather than indirect

### Layout / Format:

- AVOID SURVEY FATIGUE by communicating why the survey is important and where the data will be used.
- Start a questionnaire with an introduction. If a respondent reads the survey, provide a title for each section.
- It's usually best to start a survey with general questions that will be easy for a respondent to answer.

- Things mentioned early in a survey can impact answers later. If the survey mentions something, respondents might be primed to think of this in other questions.
- It's usually best to ask any sensitive questions, including demographics (especially income), near the end of the survey.
- If you are asking a series of similar questions, randomizing the order respondents hear them can improve your data.
- Put more complex topics first?
- Visually separate thematic sections with lines or color
- Best to aggregate answers to a battery of items into a single index (Likert, true/false, etc.) in order to minimize impacts of idiosyncrasies of item wordings

Other:

- Surveymonkey [claims](#) that response rates are highest for survey invitations sent out on Mondays

## EXAMPLES OF BAD QUESTIONS:

**Example construct:** How people feel about universal health insurance.

**Example question:** *Do you favor or oppose health insurance for all people in the United States?*

**Comment:** It does not take much testing to learn that this question as designed measures the wrong construct. Almost no one is opposed to the idea of everyone in the United States having health insurance. If someone answers "oppose," probing reveals that most will be opposed to a particular way of providing health insurance, not the idea of insurance itself

**Example construct:** The quality of medical care provided by physicians.

**Example question:** *How would you rate the ability of your doctor to diagnose what is wrong and recommend the right treatments?*

**Comment:** When this question was tested, researchers found that most patients could not answer this question (Fowler, 1997).