



	<b>Reasoning</b>
When able, use validated questions.	Questions from validated surveys have underwent testing needed to ensure the question measures what it is intended to measure.
If using questions from a previous CERA survey, do not change how the question was asked.	Wording changes can alter the ability to analyze changes between past and current question responses.
Avoid "choose all that apply" questions	Choose all that apply questions count as multiple questions of the 10 allowed for CERA surveys and can be difficult to statistically analyze.
Uses integer responses to create continuous variables when quantifying a phenomenon	Continuous variables can provide more specific data when quantifying a phenomenon rather than having preset categories.
Avoid agree/disagree frameworks unless essential to the question	Agree/disagree formats trigger acquiescence bias and measure reactions to a statement rather than the underlying construct. Direct, construct-specific stems (e.g., confidence, interest) yield more valid and interpretable data.
Avoids multi-barreled questions	Multi-barreled questions force respondents to answer about multiple concepts at once, making their responses uninterpretable. Single-construct questions improve reliability and analytic clarity.
Provides timeframes when applicable	Timeframes standardize recall and reduce variability caused by respondents referencing different periods. This improves comparability and accuracy of responses.
Avoids negative language "un-" "not" "anti-"	Negatively worded stems increase cognitive load and misinterpretation, leading to higher error rates. Positive wording produces clearer, more reliable responses.
Aligns question stems and response options	When stems and response options do not match, respondents must mentally translate between them, increasing confusion and measurement error. Alignment ensures respondents answer the intended construct.
Uses 5 (one-sided) or 7 (two-sided) responses for Likert questions	One-sided scales measure intensity of a single construct and reduce conceptual ambiguity. Two-sided scales should only be used when both poles represent meaningful opposites. Five- and seven-point scales balance sensitivity with cognitive simplicity.

	They are empirically supported for producing reliable, discriminating responses without overwhelming respondents.
Uses objective response options	Objective options reduce subjective interpretation and improve consistency across respondents. They support more precise and defensible quantitative analysis.
Uses clear and specific response options	Specific categories reduce ambiguity and ensure respondents interpret options similarly. This improves construct validity and reduces noise in the data.
Uses comprehensive response options	Comprehensive options prevent respondents from being forced into inaccurate categories or overusing "Other." This ensures full capture of the construct and cleaner data.
Uses consistent format for response options	Consistency in format and ordering reduces cognitive switching costs and prevents misinterpretation. It also improves survey flow and respondent satisfaction.
Uses mutually exclusive response options	Non-overlapping categories prevent respondents from fitting into multiple options, which would compromise classification accuracy. Mutually exclusive options support clean, analyzable data.
Includes absolutes as separate response options (i.e. 0% and 100%; none and all)	Absolute states represent qualitatively distinct responses and should not be embedded within ranges. Separating them prevents misclassification and preserves analytic meaning.
Order responses from negative to positive, low to high, or alphabetically	Predictable ordering reduces cognitive effort and prevents respondents from misreading the scale. It also aligns with natural scanning patterns and improves response accuracy.

## Example 5-Point, One-Sided Likert Response Options

### Confidence

Not at all confident  
Slightly confident  
Moderately confident  
Quite confident  
Extremely confident

### Importance

Not important  
Slightly important  
Moderately important  
Quite important  
Extremely important

### Quality

Poor  
Fair  
Average  
Good  
Outstanding

### Interest

Not at all interested  
Slightly interested  
Moderately interested  
Quite interested  
Extremely interested

### Satisfaction

Not at all satisfied  
Slightly satisfied  
Moderately satisfied  
Quite satisfied  
Extremely satisfied

### Truth

Not at all true of me  
Slightly true of me  
Moderately true of me  
Quite true of me  
Extremely true of me

### Effort

Almost no effort  
A little bit of effort  
Some effort  
Quite a bit of effort  
A great deal of effort

## Example 7-Point, Two-Sided Likert Response Options

### Confidence

Completely unconfident  
Moderately unconfident  
Slightly unconfident  
Neither unconfident nor confident  
Slightly confident  
Moderately confident  
Completely confident

### Importance

Very unimportant  
Moderately unimportant  
Slightly unimportant  
Neither unimportant nor important  
Slightly important  
Moderately important  
Very important

### Truth

Completely untrue  
Moderately untrue  
Slightly untrue  
Neither untrue nor true  
Slightly true  
Moderately true  
Completely true

### Interest

Very uninterested  
Moderately uninterested  
Slightly uninterested  
Neither uninterested nor interested  
Slightly interested  
Moderately interested  
Very interested

### Satisfaction

Completely unsatisfied  
Moderately unsatisfied  
Slightly unsatisfied  
Neither unsatisfied nor satisfied  
Slightly satisfied  
Moderately satisfied  
Completely satisfied