

Basic Tips for Choosing Scales

Whenever possible, rely on established items. Creating survey items can be a difficult task which should include pilot testing and analysis. Instead of creating items from scratch, identify questions that already exist and have been tested for validity and reliability. Validity examines whether or not an instrument “measures what it is supposed to measure” and “a reliable instrument is one that gives consistent results.”¹ Valid and reliable questions are often found in journals, literature reviews, or in national studies. Whenever using established items, be sure to check both the copyright and the population in which these items have been validated.

Choose stems carefully. The stems of questions and the scales should match. Good stems often start with:

- ❖ How would you rate the following... (use a quality scale)
- ❖ How would you rate your (e.g., satisfaction, agreement, etc.) with the following...
- ❖ To what extent do/ have/has...
- ❖ Over the past (e.g., two weeks), how often have you... (use a frequency scale)

Reverse word some of the items. Reverse wording is useful when a set items are measured using the same scale. Typically the items have a neutral or positive tone (e.g., If I had to do it over again, I would choose CWRU). Reverse wording is simply including a few items with a negative tone (e.g., I do not feel comfortable at CWRU). Reverse wording ensures that respondents pay closer attention to the survey and it helps minimize response bias.

Use the same scales each time data is collected. This makes it possible to compare results over time. If results will be compared to other institutions, use the same scales that the other institutions are using. Review your scales occasionally and make adjustments if they do not fit the question being asked or if the scale needs to be more balanced.

Use the same scale as much as possible in the instrument (within reason). This makes it easier for the reader to move through the questions, which decreases the survey response time and increases the overall response rate. It also makes it easier to analyze the data and design charts and graphs later on.

When possible, organize the scales so all of the negative responses and positive responses to scales are on the same side. This also helps the participant to move through the questions more quickly and reduces the chances of the participant making a mistake. It will make it data analysis easier as well. In specific circumstances, it may be appropriate to switch the order of the scales.

¹ Fraenkel, J.R., & Wallen, N.E. (2006). *How to Design and Evaluate Research in Education* (6th ed.). New York, NY: McGraw-Hill.

We don't always need a scale. A checklist can be appropriate at times, especially when trying to reduce the amount of time it takes to complete a survey. For example, asking participants to check off the activities that they are most interested in may be better than asking participants to explain the extent to which they are most interested in every activity on a list.

Agreement, Quality, and Satisfaction Scales

Agreement, quality and satisfaction scales should be balanced with equally positive and negative options and the wording should match on both sides of the scale (e.g., *strongly agree* and *strongly disagree* vs. *strongly agree* and *agree very much*).

Although there has been discussion among researchers about whether or not to include a neutral option in scales, there is no standard practice. However, you should know that the level of satisfaction, quality, or agreement is likely to increase or decrease if a neutral option is provided.

Examples

Strongly Disagree	Disagree	Agree	Strongly Agree	
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Poor	Fair	Good	Very Good	
Very Poor	Poor	Fair	Good	Very Good
Very Dissatisfied	Dissatisfied	Satisfied	Very Satisfied	
Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied

Importance, Difficulty, and Impact Scales

Scales that measure the level of importance, difficulty or impact increase incrementally and tend to start with the words "To what extent..." These types of scales do not include a neutral option.

Examples:

Not at All	A Little	Moderately	Very	
Not at All	Slightly	Somewhat	Very	Extremely
Very Difficult	Somewhat Difficult	Somewhat Easy	Very Easy	

Frequency Scales

Scales that measure the extent to which a person participates in an activity also increase incrementally and do not need to be balanced or include a neutral option. These scales depend on the duration of the activity and can be more difficult to develop. The key to choosing a frequency scale is to:

- ❖ Decide how specific you want to be. Remember that the fewer the options in the scale (e.g., 3 points rather than 5 or 7), the faster the participant can complete the survey
- ❖ Ensure that every option a participant might need is available
- ❖ Make sure none of the options overlap the other options

Examples:

Never	Occasionally	Frequently			
Never	Rarely	Sometimes	Often	Very Often	
Never	1-2 times per Semester	1-2 times per Month	Once a Week	2-3 Times a Week	Daily
Less than Once a Year	Annually	Semi-Annually	Monthly	Weekly	Daily