

SURVEY DESIGN AND THE SCHOLARSHIP OF TEACHING AND LEARNING (SOTL):

Things to consider before drafting a survey

- What are some general concepts I am interested in? (e.g., how useful were parts of the course? How much do students feel they learned from the course as a whole? What suggestions do students have about improving the course?)
- What variables can I use to measure these concepts?
- What are the specific questions which help me get at these concepts (e.g., how useful were the lectures? How useful was assignment 1?)
- What demographic questions can I ask that help me address my research questions (e.g., gpa, expected grade, gender, major)?
- What quantitative or qualitative analyses can I use to answer the questions that I have?

Survey Question Types

Open ended (i.e., fill in the blank)

- Short answer
- Paragraph
- List

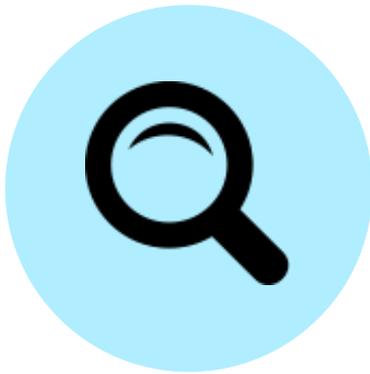
Closed ended

- Multiple choice (e.g., indicate your major) - *Easy to gather data for variables when only one answer is possible*
- Checklist (e.g., select all pre-requisite courses you have taken) - *Easy to gather large amounts of data especially for multiple grouping variables when each answer can be present/absent*
- Rating scale - *easy to count for small scales and easy to convert to numbers for quantitative analysis*
 - e.g., 1=strongly disagree; 2=disagree; 3=neither agree/disagree; 4=agree; 5=strongly agree
 - Keep category wordings as “evenly spaced”, balanced, and non-overlapping as possible
 - If absolutes (e.g., Always, Never) are used are these likely or meaningful?
 - 4-7 choices are most typical
 - Choices should generally be qualitative or both numerical and qualitative (e.g., 1=strongly disagree, 2=disagree... etc.)
 - Is a neutral response choice (odd number of categories) desired or is “forced choice” preferred (even number of categories)
 - Consider if a do not know/not applicable option should be included

Best Practices in Creating Questions

- Relate to variables/concepts you are interested in and analyses you plan to use
- Are clear and easy to interpret by intended reader. Have definitions and/or clarifications if required.
- Answers can be recalled easily by participants (e.g., didn’t happen too long ago, isn’t too hard to estimate)
- Word questions positively (e.g., how useful was the assignment?) rather than negatively (e.g., how useless was the assignment?)
- Questions should be concise
- Not leading or biasing (do not “suggest” an answer to the question, word as neutrally as possible)
- Not “double barreled” (e.g., “do you like science and math?”)
- When reviewing your questions, ask the following:
 - Have all concepts of interest been represented by different questions?
 - Are all general concepts sufficiently covered by multiple questions (at least 3-5) to assess them?
 - Can the literature help inform question wording and/or variable choice(s)?
 - Does each question have a clear purpose?
 - Do I have an idea of how this question will be used in the analysis and why I’m asking it?

Using Validated Instruments



- Even if it is “validated” not all validated scales are created equal and modification of an instrument will require further work and reassessment
- Questions to consider regarding the validity of an instrument:
 - Where was it published? Has it been improved over time?
 - How frequently is it used/cited?
 - What methods were used to validate the instrument? How rigorous was this and how large/generalizable was the population used?
- How well-suited is this instrument for your study?
 - How closely does the construct in the instrument match your interest?
 - Has it been tested on a similar population to mine?
 - What adaptations might be needed for my own research? (Note: changing an instrument will “break” its validation)

Example Scales

1	2	3	4	5	
Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Agree	Not Applicable or Do Not Know
Almost never	Seldom	Sometimes	Often	Very often	Not Applicable or Do Not Know
Very Poor	Poor	Satisfactory	Good	Very Good	Not Applicable or Do Not Know
Very little	A little	Somewhat	A lot	Quite a lot	Not Applicable or Do Not Know
Mostly not useful	Not very useful	Somewhat useful	Very useful	Extremely useful	Not Applicable or Do Not Know

Further Reading

For more in-depth information on scale development and survey design, we recommend the following resources:

DeVellis, R. F. (2003). *Scale Development: Theory and Applications* (Vol. 26). Thousand Oaks, CA: Sage Publications.

Krosnick, J. A., and Presser, S. (2010) Question and Questionnaire Design. In P.V. Marsden, and J.D. Wright (Ed.), *Handbook of Survey Research* (2nd ed, pp. 263-313). Bingley, WA, UK: Emerald Group Publishing Limited.