



Tip Sheet

How to Design Data-Entry-Friendly Surveys

Survey design tips that will help to improve data quality and make data processing easier

The following tips will help to make data processing easier and improve data quality. They are mostly relevant to paper surveys, although the tips with the  symbol also apply to setting up online surveys. This is not an exhaustive list of survey design considerations, but rather a list of considerations specifically related to data processing concerns.

Make instructions and layout as clear as possible:

- Tell respondents if you want them to check, circle, “X,” or write in their response. You can also use formatting to make this very clear.
- Tell respondents if you want them to “choose one” or “select all” of the response options. It’s very important to plan ahead of time if you want your survey question to be used as one variable with a list of mutually exclusive options, or as a “select all” question stem with several yes/no (dichotomous) variables.
- If you are using a skip pattern, be sure to give very clear skip instructions and emphasize them with bold, large, or italics font. Arrows are also helpful.
-  For retrospective post-test surveys, clearly label the “before” and “after” reference periods, and emphasize them with bold, large, or italics font.
- Provide adequate space between questions, and ample room for checking boxes, circling values, or writing in comments.

Put response values (numbers) on the survey:

If you will be doing manual data entry into Excel, it is sometimes helpful to put your response value numbers directly on the surveys. This is particularly helpful if data entry will be done by a volunteer or student, and/or if the entry will be done by several different people. Numbers can be included by having respondents circle numbers, or with checkboxes that have subscript numbers next to them. Here are two examples:

1A. Subscript number checkboxes

How often do you read the *Mount Vernon News*?

- ₀ Never ₁ Every once in a while ₂ Almost every day

1B. Numbers to circle

Circle the number that best describes how you feel or what you think about the sentence.

All survey responses will be kept confidential.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
I like coming to school.	5	4	3	2	1
My peers like coming to school.	5	4	3	2	1

If it is not possible or desirable to put the numbers on the survey, you can also use a clear plastic overlay sheet. Use permanent marker to write the response values on the plastic, and then lay it over each survey as you enter it.

Make your response options fool-proof:

📖 Whenever possible, use a closed-ended question with a list of options (especially if the response options are words). In the following examples, 2A will require you to code your data (turn the words into numbers), while 2B will save you that step.

2A. Open-ended

What school do you currently go to?

2B. Close-ended

What school do you currently go to?

- Centerburg Middle School
- Danville Middle School
- East Knox Middle School
- Fredericktown Middle/Intermediate School
- Mount Vernon Middle School
- Home-schooled
- Other: _____

📖 Think about how you will use the data and what your analysis capabilities are, and let that guide the level of specificity you collect. This is particularly important when the response options are numbers. Examples 3A-3D illustrate four different ways to ask the same type of question.

3A. Simple dichotomous

Do you have any children under age 18?

- Yes No

Pros: Short and easy to answer and process; Useful if you only need to know if they have *any* children
Cons: Won't know *how many* children they have

3B. Closed-ended

How many children do you have under age 18? 0 1 2 or more

Pros: Short and easy to answer and process; Useful if you only need to know these categories; Includes "0," which makes the response options mutually exclusive
Cons: Can't calculate average number of children; Not useful if you want to know exact number of

3C. Open-ended (specific)

How many children do you have under age 18? _____

Pros: Short and easy to answer and enter; Can calculate average (though not possible in Survey Monkey); When you have data in this format, you can always collapse it into categories later (assuming you have the right software to do this)
Cons: May need to "collapse" responses for meaningful reporting (not possible in Survey Monkey or Survey Gizmo); May be difficult to read handwriting

3D. Open-ended (vague)

How old are your children? _____

Cons: Will be confusing for data entry and analysis; may be difficult to read handwriting

3E. Closed-ended with categories

How old are your children?

(check all that apply)

- 0-5 years old 15-17 years old
- 6-10 years old 18-21 years old
- 11-14 years old 22 or older

Pros: Easy to enter and process

Cons: Can't calculate average

☞ Include a “not applicable” option if it is possible that some respondents may not be able to select one of the options.

4A. Not applicable option				
Since participating in the Safe Dates program last year...				
How often have you used what you learned to.... <i>Circle one answer for each question.</i>				
Communicate better with a boyfriend or girlfriend	Never ₁	Sometimes ₂	Often ₃	Have not had a boyfriend/girlfriend this past year ₀
Help a friend in an abusive relationship	Never ₁	Sometimes ₂	Often ₃	Don't have any friends in abusive relationships ₀
Take action in a situation where you witness someone being abused or threatened	Never ₁	Sometimes ₂	Often ₃	Have not witnessed any abuse ₀

☞ Make sure that your response options are “exhaustive”—meaning that they include all the possible options your respondents might want to select. Pilot testing your survey can help you to identify options you may not have thought of. Adding an “other” category is a catch-all way to make sure you are capturing everything. Example 5A below is not exhaustive, while example 5B is exhaustive.

5A. Not exhaustive
What is your race/ethnicity?
<input type="checkbox"/> Black
<input type="checkbox"/> White
<input type="checkbox"/> Hispanic
Note: Don't use this one!

5B. Exhaustive, with “other”
Which of the following best describes you?
<input type="checkbox"/> American Indian
<input type="checkbox"/> Asian
<input type="checkbox"/> Black or African American/ Non-Hispanic
<input type="checkbox"/> Hispanic or Latino
<input type="checkbox"/> Native Hawaiian or Other Pacific Islander
<input type="checkbox"/> White or Caucasian/ Non-Hispanic
<input type="checkbox"/> Other Ethnicity
<input type="checkbox"/> Two or more races
Note: Because this question does not say “choose only one” or “mark all that apply,” and includes the “two or more races,” it is a little unclear how a multi-racial person should respond, and how the variable(s) should be set up.

☐ When you have numbers as response options, make sure they are “mutually exclusive”—meaning that you don’t have overlapping number categories. In example 6A below, someone earning \$20,000 would not be sure which option to select. Example 6B is more clear.

6A. Not mutually exclusive options, overlapping number categories

How many ?

- \$0-\$20,000
- \$20,000-\$40,000
- \$40,000-\$60,000
- \$60,000 or more

6B. Mutually exclusive options

What was your annual household income in 2008?

- \$0-\$20,000
- \$21,000-\$40,000
- \$41,000-\$60,000
- \$61,000 or more
- Don't know

Make Likert Scales and matrix questions easy to read:

- Use spacing and/or shading to help respondents’ eyes stay in the right row (see example 7A).
- If a matrix is split between two pages, be sure to label the columns again at the top of the next page.
- Clearly label the response options along the top of the matrix (example 7A), or in the matrix itself (see example 4A above). Do not simply list the response options at the beginning of the survey (example 7B).

7A. Clearly labeled and formatted Likert scale matrix

Please rate how much you agree or disagree with each of the following statements. Each statement begins with:

After participating in Re-Do Day, I am more...

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Aware that my actions affect others.	5	4	3	2	1
Aware of the effects of teasing and bullying.	5	4	3	2	1

7B. Unlabeled Likert scale matrix

Rate these statements using the following scale: 5= Strongly Agree, 4= Agree, 3= Neutral, 2= Disagree, 1= Strongly Disagree.

After participating in Re-Do Day, I am more...

Aware that my actions affect others.	5	4	3	2	1
Aware of the effects of teasing and bullying.	5	4	3	2	1
Supportive of others.	5	4	3	2	1