Question Types

by Sophia Tutorial

☰ WHAT'S COVERED

This tutorial will cover the topic of question types. We will cover binomial questions, as well as discuss the difference between open-ended and closed questions, through the exploration of:

1. Binomial Questions
2. Closed Questions
3. Open-ended Questions

1. Binomial Questions

Recall that there are two types of data:

Qualitative Data	Quantitative Data
Deals with categories or descriptions Also called Categorical Data	Deals with numbers and can be measured or perform arithmetic with Also called Numerical Data

A **binomial question** is a type of question with only two answer choices. In order to understand what a binomial question is, it helps to break down the word itself. Bi means "two" and nomial means "names". So a binomial question is a question with two names.

Do you think that this is a qualitative type of question or a quantitative type of question?

A binomial question collects qualitative data because there are two possible responses. It's a question with two categories.

⤷ **EXAMPLE** The simplest version of a binomial question is yes or no. You might remember this type of question from elementary or middle school:

Do you like me?

(Check Yes or No)

	Yes		No
☐		☐	

Other examples of binomial questions include:

- Do you prefer dogs or cats?
- Are you a smoker or non-smoker?

In that last question, some people feel like they fall somewhere in between the two options. They may currently be a smoker, but they are trying to quit. Sometimes questions have some shades of gray. What about this one?

"Have you ever smoked?"

This is a binomial question that would address people who don't currently smoke but used to.

Sometimes things don't neatly fit into two boxes. Nor do they work when the questions have more than two answers or are open-ended questions such as, "How do you feel about the construction of the new baseball diamond located on the north end of town?". It doesn't really work to place something like that into two categories.

📄 **TERM TO KNOW**

Binomial Question
A question with only two answer choices.

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2. Closed Questions

Many surveys have a combination of open and closed questions.**Closed questions** have short, definite, usually multiple choice type answers.

Your Overall Experience					
	Excellent	Good	Satisfactory	Fair	Poor
The Teacher	○	○	○	○	○
Class Content	○	○	○	○	○
The Class as a Whole	○	○	○	○	○
What did you like about the class?					

In the above example, you'll notice that the highlighted pink area shows multiple choices --poor, fair,

satisfactory, good and excellent-- and those are your only choices.

🚩 **HINT**

When there are only certain answers to select, such as yes/no or multiple choice, that is the signal that you are dealing with a closed question.

📄 **TERM TO KNOW**

Closed Question
A question type with only so many different answer choices.

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3. Open-ended Questions

Open questions, also called open-ended questions, are subjective. These are areas where someone can click into the field and start to type their comments and/or opinions. These comments are open to the interpretation of the person being surveyed.

The comments are also open to the interpretation of the person conducting the survey when they do the analysis. Usually, they need to be analyzed by a person in order to really get the full effect from it. Oftentimes, in the desire for simplicity, someone will give a question in closed form that really should be an open-ended question.

An example of an open-ended question is highlighted in blue below.

Your Overall Experience					
	Excellent	Good	Satisfactory	Fair	Poor
The Teacher	○	○	○	○	○
Class Content	○	○	○	○	○
The Class as a Whole	○	○	○	○	○
What did you like about the class?					

📄 **TERM TO KNOW**

Open Question
A question type with no answer choices; the respondent can choose what he or she wants to say to answer the question.

⚙ **THINK ABOUT IT**

Suppose you are in a court of law and the lawyer asks, "Were you at the crime scene?"

"Yes, but I didn't see anything other than people running and police arriving. It was chaos."

"Just yes or no, please."

The lawyer asked a closed question and wants only a yes/no answer. By attempting to explain your circumstance, you were trying to answer it in an open-ended question type. The lawyer reverts back to the closed question again by asking you to select either "yes" or "no."

☑ SUMMARY

Binomial questions produce categorical data. These are questions with two possible responses, or two categories. It's important to consider whether or not there really are just two categories before you ask something as a binomial question. Open questions allow for more explanation and they're sometimes difficult to interpret because they're not very cut and dried like closed questions. Sometime open-ended questions are called "essay" questions. Closed questions are easier to interpret, but they're not always appropriate for the situation. Closed questions are sometimes called multiple choice type questions.

Good luck!

Source: Adapted from Sophia tutorial by Jonathan Osters.

🗎 TERMS TO KNOW

Binomial Question Type
A question that will yield categorical data with just two possible values.

Closed Question
A question type with only so many different answer choices.

Open Question
A question type with no answer choices; the respondent can choose what he or she wants to say to answer the question.