

## 2. QUESTIONNAIRE DESIGN | METHODS, QUESTION TYPES & EXAMPLES

A **questionnaire** is a list of questions or items used to gather data from respondents about their attitudes, experiences, or opinions.

Questionnaires can be used to collect quantitative and/or qualitative information.

Questionnaires are commonly used in market research as well as in the social and health sciences. For example, a company may ask for feedback about a recent customer service experience, or psychology researchers may investigate health risk perceptions using questionnaires.

### ➤ Questionnaires vs. surveys

A **survey** is a research method where you collect and analyze previously founded data from a group of people.

**A questionnaire is a specific tool or instrument for collecting and create the data.**

### ➤ Questionnaire methods

Questionnaires can be **self-administered** or **researcher-administered**. Self-administered questionnaires are more common because they are easy to implement and inexpensive, but researcher-administered questionnaires allow deeper visions.

## 1. Self-administered questionnaires

Self-administered questionnaires can be delivered online or in paper-and-pen formats, in person or through mail. All questions are standardized so that all respondents receive the same questions with identical wording.

Self-administered questionnaires can be:

- ✓ cost-effective
- ✓ easy to administer for small and large groups
- ✓ anonymous and suitable for sensitive topics
- ✓ self-paced

But they may also be:

- ☒ unsuitable for people with limited literacy or verbal skills
- ☒ susceptible to a nonresponse bias (most people invited may not complete the questionnaire)
- ☒ biased towards people who volunteer because impersonal survey requests often go ignored.

## 2. Researcher-administered questionnaires

Researcher-administered questionnaires are interviews that take place by phone, in-person, or online between researchers and respondents.

**Researcher-administered questionnaires can:**

- ✓ help you ensure the respondents are representative of your target audience
- ✓ allow clarifications of ambiguous or unclear questions and answers
- ✓ have high response rates because it's harder to refuse an interview when personal attention is given to respondents

**But researcher-administered questionnaires can be limiting in terms of resources. They are:**

- ☒ costly and time-consuming to perform
- ☒ more difficult to analyze if you have qualitative responses
- ☒ likely to contain experimenter bias or demand characteristics
- ☒ likely to encourage social desirability bias in responses because of a lack of privacy

➤ **Open-ended vs. closed-ended questions**

Your questionnaire can include open-ended or closed-ended questions or a combination of both.

Using closed-ended questions limits your responses, while open-ended questions enable a broad range of answers. You'll need to balance these considerations with your available time and resources.

**1. Closed-ended questions**

Closed-ended, or restricted-choice, questions offer respondents a fixed set of choices to select from. Closed-ended questions are best for collecting data on categorical or quantitative variables.

Categorical variables can be nominal or ordinal. Quantitative variables can be interval or ratio.

➤ **Examples of closed-ended questions for different variables**

**Nominal variables** include categories that can't be ranked, such as race or ethnicity. This includes binary categories.

Example: Nominal variables

What is your race?

- ☐ White
- ☐ Black or African
- ☐ Asian

Are you satisfied with the current work-from-home policies?

- ☐ Yes
- ☐ No

**Ordinal variables** include categories that can be ranked. Consider how wide or narrow a range you'll include in your response items, and their relevance to your respondents.

Example: Ordinal variables

What is your age?

- ☐ 15 or younger
- ☐ 16–35

☐ 36–60

☐ 61–75

76 or older

Scale questions collect ordinal data using rating scales with 5 or 7 points.

Example:

How satisfied or dissatisfied are you with your online shopping experience today?

☐ Very dissatisfied

☐ Somewhat dissatisfied

☐ Neither satisfied nor dissatisfied

☐ Somewhat satisfied

☐ Very satisfied

## 2. Open-ended questions

Open-ended, or long-form, questions allow respondents to give answers in their own words. Because there are no restrictions on their choices, respondents can answer in ways that researchers may not have otherwise considered. For example, respondents may want to answer “multiracial” for the question on race rather than selecting from a restricted list.

Example: Open-ended questions

1. How do you feel about open science?
2. How would you describe your personality?

They require more time and effort from respondents, which may deter them from completing the questionnaire.

### **Step-by-step guide to design**

**Step 1: Define your goals and objectives.**

**Step 2: Use questions that are suitable for your sample**

**Step 3: Decide on your questionnaire length and question order**

**Step 4: Pretest your questionnaire**