

4 Sourcing and Crafting Questions

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If you do not ask the right questions, you do not get the right answers.

—Edward Hodnett, 20th-century poet and writer

Designing effective questions requires a well-rounded understanding of all the possibilities for writing questions from scratch and for sourcing questions from other surveys or through other methods, such as focus groups. This chapter covers both critical background information about the anatomy and physiology of questions, question types, and more, as well as strategies for sourcing questions. A solid understanding of this material will be of great benefit in drafting questions.

Sourcing Survey Questions

There are a number of ways to find, develop, or adapt survey questions. Researchers may start with a blank slate and brainstorm to develop question drafts. However, ideally, researchers do not develop survey questions in a vacuum. Instead, we can engage the help of experts or those in the target population of respondents in drafting questions. Entire surveys or questions can also be adopted or adapted from existing tools, minding copyright, intellectual property, and related issues, of course! We briefly discuss some of these strategies for sourcing questions in this section.

Brainstorming

Brainstorming is often the first step in survey question drafting and is one of the easier ways to develop a bank of potential survey questions. This is especially true if researchers are not looking to use or cannot find appropriate existing measures with questions that could be adopted or adapted. Brainstorming is also an important strategy when access to desired respondents is limited or timelines are short, such that it is difficult to engage potential respondents in developing questions. We urge researchers to engage others in brainstorming, whenever possible, even if very informally. Research colleagues and those familiar with the research subject can provide inspiration for potential questions, as well as serve as a sounding board or “devil’s advocate,” identifying possible weaknesses or challenges in early question ideas. [Chapter 1](#) introduced brainstorming as one phase of design thinking in which survey designers can start with a series of “How might we” questions to catalyze the brainstorming session.

Engaging Potential Respondents or Informants

Members of the potential respondent pool, those who are familiar with the desired respondents, or informants who have subject-matter expertise can help greatly in developing questions. Although informal conversations may be helpful, more formal interviews or focus groups can provide input well worth the additional time and resources they require. Either can provide especially critical guidance for survey development if the researcher is not a member or otherwise highly familiar with the desired respondents’ culture(s) and experience(s).

Fowler (2014) discusses the value of focus groups to the question development process. In focus groups used for survey design, researchers typically invite small groups (usually about 6 to 10 people at a time) to engage in a moderated discussion of the survey topic or construct in hopes of learning more about it as well as eliciting input from participants on issues that should be included in survey questions. Focus group participants, especially if they are either members of the respondent population or closely connected to the topic of study, can provide greater understanding of a topic and lead researchers to explore aspects of a topic that might otherwise be overlooked. Their insights can help us understand the topic as they do and offer the language they use to describe the topic and associated conditions that can inform question development. Focus group composition is usually determined by the topic, though mirroring the target population for the survey is often ideal. Researchers must take care, especially when working with sensitive topics, that the composition of the focus group will result in people feeling comfortable and willing to openly discuss the topic with others in the room (for more information on how focus groups are used in survey development, see Rea and Parker [2014]). Focus groups can also be used later in the survey design process, specifically for pretesting survey questions, once a draft is developed (see [Chapter 7](#) for more on pretesting).

Individual interviews are particularly effective in soliciting input from informants with subject-matter expertise, unless it is possible to gather a small group of such informants for more of a group brainstorming session or focus group. Informants may be able to share insights related to the subject matter more readily than potential respondents and may also be able to help anticipate potential challenges regarding particular questions. In some cases, it is easier or more appropriate to conduct individual interviews with a small group of potential respondents. For example, when the subject matter is particularly sensitive, or when the target population is quite diverse, and a more private conversation is warranted, individual interviews may be preferable to focus groups.

Focus groups and interviews are also commonly used in the pretesting phase once a survey draft has been created. More information about this is included in the description of the testing phase of design thinking that follows as well as in [Chapter 7](#), where we explore how to finalize surveys in greater detail.

Using or Adapting Existing Measures

Most research builds on prior research, aiming to confirm, extend, or refute earlier results. Just as researchers use (and cite) the theoretical underpinnings of any new research effort, researchers can and should explore existing surveys or measures before creating their own. Use or adaptation of existing tools or questions is particularly valuable under the following circumstances:

- When the research subject has been well studied by others (i.e., when there is a large and/or diverse body of research about it already)
- Where existing tools are accessible and available for use or adaptation
- Where a research effort will benefit from previously conducted validation and reliability tests (e.g., in a replication study or where expectations related to the credibility of the results demand extant reliability and **validity** of tools used)

This is best done, or at least begun, early in the survey design process—once research goals are clarified, a survey is selected as the tool of choice, and constructs to be measured are articulated. An Internet search or basic literature review will likely yield a wealth of information about whether a topic has already been well explored by others. This also gives survey researchers insight into which topics are likely to turn up articles, databases or catalogues of available instruments, information

about who to contact or how to access the instruments (some are free, but many do have costs associated with their use), or even the existing instruments themselves. As researchers explore existing surveys and questions, it is especially important to learn about the population for which any existing survey or questions were designed. Likewise, if the survey or questions have been validated through previous research, be sure to inquire as to which population of respondents was included in validation analyses. Often, existing tools and questions were developed for, and validated with, majority populations only (or even convenience samples of university students) and may therefore not actually be valid or appropriate for use with the population of interest.

As research is increasingly published openly, and research tools such as surveys are shared more openly alongside those results, it should become easier to benefit from the efforts of others. However, it is important to ensure the process used to develop any survey was as rigorous as necessary. Researchers should expect that not all existing surveys are freely available for use or adaptation. It is important to check any copyright or other intellectual property restrictions and to reach out to tool developers to request permission, even if no restrictions are immediately obvious. Regardless of how openly tools are shared, it is an ethical mandate that researchers seek permission to use and adapt surveys prior to doing so and that resources used are cited in an appropriate manner (just as other materials would be in any research effort). Often, conversations with survey designers can also result in great advice about what to do differently as a result of previous use of the survey, or cautionary tales about particularly challenging questions. The following story illustrates how a survey was designed using a combination of locally designed questions as well as intentional and careful selection of questions from an existing measure.

Stories From the Field

An Arts Education Survey Adapted From Existing Tools



In 2015, the Research Department at the Oregon Community Foundation wanted to learn about the arts education provided by nonprofit organizations throughout the state of Oregon to provide context for efforts to improve arts education access and quality in Oregon. Years of budget cuts have resulted in decreased arts education offerings available through schools. In many communities, nonprofit organizations have stepped up to fill the gap, providing an increasing amount of arts education, sometimes in partnership with schools. Although information was available in the recent past about the arts education provided through schools and school districts, similar information was not available about the arts education programming provided by nonprofit organizations.

After considering other methods that could be used to gather such information (e.g., community asset mapping), the research team determined that a survey was the best possible tool, especially considering that information was desired from as large a group of respondent organizations as possible, across a large geographical area. However, rather than starting to build a survey from scratch, researchers began with a review of recent efforts to capture similar information in other cities and states. Researchers not only reviewed existing tools, they spoke with the people who had developed and/or used those tools to learn about what worked well about them and what they wished they'd done differently. They also requested and received permission to use questions from the various tools from their owners. As a result of reviewing these tools and gathering this advice, researchers were far better positioned to develop a survey tool that would meet the needs of this research project. The survey used was a combination of questions developed in-house, as well as those from other existing tools. In a few cases, existing questions were adapted based on advice provided by others and to ensure they would be relevant to the desired respondents in Oregon.

—Kimberly Firth Leonard

The Anatomy and Physiology of Survey Questions

In medicine, *anatomy* refers to the *structure* of body parts, whereas *physiology* refers to the *functions* and *relationships* of those parts. We think of the anatomy of a survey question as the parts of the question that make up its structure. Simply put, this includes the **question stem** (i.e., the question or statement itself) along with any response options that may accompany that stem. A question stem with no response options is an open-ended question (sometimes referred to as an “unstructured” question), and a question stem with a set of response options is a closed-ended (or “structured”) question.

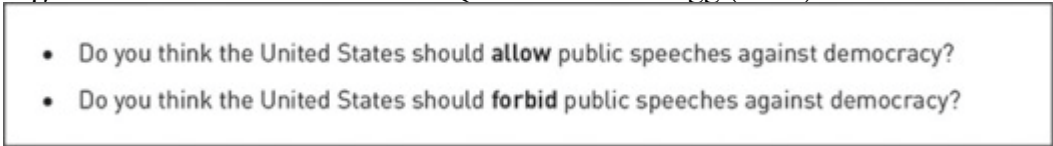
The physiology of a survey question is a combination of 1) the function of the question stem and any response options (in other words, their individual purposes and how they work to form a complete survey question) and 2) the relationships *between* the question stem and response options (in other words, how they work *together*). This physiology—the function and relationship of the question parts—has significant implications for survey response, a major focus of this and the next two chapters.

The main impetus for employing a purposeful survey design process that incorporates design thinking is concern for response effects. Response effects are changes or differences in survey responses that occur due to various aspects of survey design or administration. Although response effects can arise from any part of the survey design and administration process, we focus on those effects that result from the design of survey questions themselves. As we reiterate throughout this text, the design choices we make as researchers about what to ask and how to ask are key to a successful survey effort.

Composing Question Stems

Much of our text is devoted to survey question design through the lens of understanding *how* respondents answer survey questions and the various influences of question features and context on responses. No survey research text is complete without at least a brief discussion of a foundational work (or perhaps *the* foundational work) on how question wording influences responses. In 1941, Donald Rugg published *Experiments in Wording Questions: II* in the highly acclaimed *Public Opinion Quarterly*. The 90-year old *POQ* is a tremendous resource for survey researchers. Rugg’s now-famous World War II–era experiment had to do with varying the wording in survey questions (see [Figure 4.1](#)) for different cross sections of a sample of the U.S. population.

Figure 4.1 ○ Two Variations of a Question From Rugg (1941)

- 
- Do you think the United States should **allow** public speeches against democracy?
 - Do you think the United States should **forbid** public speeches against democracy?

The difference is around one word choice: *allow* versus *forbid*. In theory, if one answers yes to the question using the word *allow*, that person would also answer no to the second question using the word *forbid* because “to forbid” is essentially the opposite of “to allow.” In fact, and what makes this a most interesting and oft-cited case, Rugg (1941) found “a very striking difference in response to the two forms of the question” (p. 92). Rugg not only found response differences among certain subgroups of the population as one might expect, but the phenomenon itself—people responding very differently to the two questions—was consistent across subgroups. Rugg (1941) surmised that “evidently the ‘forbid’ phrasing makes the implied threat to civil liberties more apparent, and fewer

people are willing to advocate suppression of anti-democratic speeches when the issue is presented in this way” (p. 92). Many similar, more recent studies have also been conducted testing two versions of a question. In one such study, Goetz (2008) tested two forms of a question with the terms *affordable housing* versus *lifecycle housing* and found that more respondents supported *lifecycle housing* and more expressed strong opposition to *affordable housing* even though both terms refer to low-cost, publicly assisted or subsidized housing.

As we learned in [Chapter 3](#), respondents must be able to understand a question before they are able to answer it. The best survey questions are written in language that respondents can easily understand and worded in ways that make sense to them. Questions must be *syntactically* correct (i.e., employ correct grammar and usage) and also *semantically* valid (i.e., make sense). In other words, respondents need to interpret words and phrases in the way in which the researcher intends them to be understood. A well-known example by noted linguist Noam Chomsky that demonstrates a syntactically correct but not semantically valid sentence is this: “Colorless green ideas sleep furiously.” This sentence is perfectly grammatical but makes no sense. In addition to ensuring questions make sense to respondents, the most effective questions also limit cognitive load—the amount of mental effort respondents must exert in order to answer the question—and limit the burden on working memory.

Reference Periods

Respondents rely on context from the question stem (as well as from any response options offered) in order to respond to a question. Sometimes, this context includes a reference period that is part of the question stem. Reference periods are the specific time frames survey researchers ask about in individual questions. Survey questions often feature reference periods such as *in the last month* or *in the last year* as they ask respondents to recall instances of certain behaviors, feelings, or events. The choice of *which* period of time to investigate can have significant implications for how respondents interpret the question. For example, if asked how many times they have felt sad *in the last year*, respondents may infer that researchers are interested only in very memorable events that caused significant or extreme sadness such as the death of a loved one. If, however, the reference period is *in the last week*, respondents may remember and include instances of sadness such as watching a sad movie (see, for example, Igou, Bless, & Schwarz, 2002; Winkielman, Knaüper, & Schwarz, 1998).

Choosing a reference period for any given question is a contest of opposing forces. Both shorter and longer reference periods possess inherent advantages and shortcomings. Because memories fade with time, respondents may have an easier time searching within shorter time periods (a few days or weeks). However, if respondents rarely experience the feeling or behavior of interest, the reference period must be long enough to result in useful responses. For example, most respondents are likely to have shopped at a grocery store within the last month but may not have shopped at a hardware store within that time period. Longer reference periods may include more instances of the feeling or behavior of interest, but responses are more subject to memory deterioration and underestimation. Conversely, shorter reference periods are subject to overestimation (Tourangeau et al., 2000). Imagine a respondent being asked how many times he has eaten carrots in the last 12 months. Unless he eats them on a *very* regular and consistent schedule, or doesn’t consume them at all, he will likely be unable to accurately recall all instances of eating carrots over the period of a year. Ultimately, survey researchers should consider how shorter or longer reference periods might help achieve the purpose of the question and determine which are appropriate given the relative frequency of the behavior or event. For example, use a shorter reference period for more common occurrences, such as a question

about purchasing milk, and a longer reference period for less common ones, such as a question about purchasing a car battery.

Reference periods can also be prone to ambiguity. For example, if a respondent is taking a survey on March 15, 2017, and is asked a question with the reference period “in the last 12 months,” how might that be interpreted? Is “the last 12 months” the entirety of the last calendar year (i.e., all of 2016)? Or does “the last 12 months” span from March 16, 2016, to March 15, 2017? Would considering roughly March 2016 through roughly February 2017 suffice, because that is the last 12 complete months? Adding to the difficulty, respondents can rarely remember abstract dates from months prior unless they included significant events such as holidays, anniversaries, or special events. This has played out in large-scale surveys such as the American Community Survey (ACS), a household survey conducted by the United States Census Bureau. After being asked a question about salary earned, respondents were asked, “Did you receive any additional tips, bonuses, or commissions DURING THE PAST 12 MONTHS?” (Hinsdale, McFarlane, Weger, Schoua-Glusberg, & Kerwin, 2009, p. 61). During cognitive interviews about this group of questions, interviewers determined that respondents interpreted that reference period inconsistently, based on the variations in their responses. Some used estimation strategies to add up weekly or monthly income for what they thought was the reference period; some reported for only part of the reference period; and others simply thought of the prior calendar year as a whole and reported for that (p. 64). As with any survey question, pretesting the question with potential respondents can help determine which reference periods may elicit the types of responses desired (more on pretesting in [Chapter 7](#)).

Avoiding Problematic Wording and Question Types

One of our goals in writing this text was to offer advice for survey designers framed in positive language. In other words, we set out to help the reader know what *to do* in the process of designing survey questions, as opposed to what *not to do*. We did not want to simply reiterate a list of “don’t do this” and “don’t do that” rules common to many survey texts. However, in the following sections, out of necessity, the “to dos” come in the form of things to *avoid* such as certain words and phrases and their placement in questions, as well as problematic ways of asking questions. In each section, we offer explanations and examples to point the reader in a positive direction and offer ideas of what *to do* even when it is difficult to directly state the rule in a positive manner.

Problematic Text Features

The words we choose to compose survey questions matter deeply and can have profound impacts on our resulting datasets. Even the choice of one word versus another, as in the Rugg (1941) and Goetz (2008) studies described earlier, can produce significant response effects. Lenzner, Kaczmirek, and Lenzner (2010) identified 12 specific text features survey designers should avoid when composing questions. These particular features have been shown to increase cognitive load, tax working memory, and otherwise contribute to difficulties with question comprehension. This can result in respondents not completing surveys (i.e., nonresponse) or engaging in “satisficing” behaviors. Respondents satisfice when they answer a question too quickly without much thought, overuse “don’t know” or “neutral” response options when these are offered, or choose the first minorly acceptable or reasonable answer they see, resulting in poor-quality data. The following is Lenzner et al.’s (2010) list of text features to avoid, along with explanations and examples of how to avoid using them that we have added to elucidate each point:

- *Acronyms* (Abbreviations formed from the first letters of a name or term. E.g., use *United States Postal Service* instead of *USPS*.)
- *Low-frequency terms* (Words and terms less often encountered in “everyday” language. E.g., use *wealthy* instead of *affluent*; use *angry* instead of *irate*.)
- *Vague quantification terms* (Words and phrases used to communicate uncertain or approximate amounts. E.g., wherever possible, use exact numbers or a range of numbers instead of terms such as *frequently*, *seldom*, *many*, or *few*. We discuss vague quantifiers in greater detail in [Chapter 5](#).)
- *Left-embedded syntactic structures* (This happens when respondents encounter several phrases, adjectives, adverbs, and prepositions *before* they get to the critical part of the question stem. This type of syntax requires them to begin interpreting and holding information in working memory before they read the actual *question*. E.g., use “The boy who hit the home run had wanted to play baseball of his life” instead of “The boy who had wanted to play baseball all of his life hit the home run.”)
- *Ambiguous syntactic structures* (This happens when the structure of the sentence or phrase is open to more than one interpretation. E.g., use clear and explicit language that generally leads to only one interpretation: “Can you name famous newscasters *other* than Dan Rather?” or “Can you name newscasters *more famous* than Dan Rather?” instead of “Can you name more famous newscasters than Dan Rather?” The latter question can be interpreted in either of the two suggested ways.)
- *Dense noun phrases* (Simply put, noun phrases are nouns and any other words that modify them, such as adjectives, adverbs, or articles. Dense noun phrases occur when many adjectives, adverbs, and articles are attached to a single noun. The following is an example of a noun followed by progressively denser noun phrases: “Muscles; your four muscles; your four shoulder muscles; your four strong shoulder muscles; the biggest of your four strong shoulder muscles; the biggest of your four strong shoulder muscles on each side; the biggest of your four strong shoulder muscles connected by tendons on each side” [Swierzbin, 2014]. E.g., use only as many noun modifiers as necessary to convey meaning. Use “your primary vehicle” rather than “the vehicle used every day considered to be your primary mode of transportation.”)
- *Quantitative mental calculations* (This is the adding respondents must do in their heads when we ask questions about behaviors or events and use specific reference periods. E.g., Limit the “mental mathematics” respondents must do to answer a question. Use “About how many hours per weekday (Monday–Friday) do you spend watching television” instead of “About how many hours per month do you watch television on weekdays?” In the former, respondents only need do the math for one day, versus adding up 7 days’ worth of watching to come up with the total for the week.)
- *Hypothetical questions* (These questions ask about assumed situations as opposed to current facts. They are often “What if” questions. E.g., if hypothetical questions are necessary, keep them brief and clear. Use “If we added a staff break room to the floor, would you use it?” instead of “If we added a space where workers could sit and talk, use a refrigerator or coffee machine, and spend time with coworkers during breaks, would you go there?”)
- *Numerous logical operators* (Logical operators are connecting words such as *and*, *but*, *or*, and *if*. Too many in one question taxes working memory. E.g., separate questions and explanations into clear, brief statements. Use “*Family members* include parents, children, and any others living in your home or staying with you. *Medical facility* includes any place you visit to receive health care. How many times in the last 6 months have you or any family members visited a medical facility?” instead of “How many times in the last 6 months have you or any of your family members [including parents, children, and any others living in your home or staying with you] visited a health care or other medical facility?”)

- *Nominalizations* (Nominalizations are verbs or adjectives that have been changed into nouns or noun phrases¹ such as “the expansion of” from “to expand.” E.g., use “Should developers continue to expand the shopping center?” instead of “Should developers move forward with the expansion of the shopping center?”)
- *Passive constructions* (This happens when the object of the action in a sentence becomes the subject. E.g., use “Developers expanded the shopping center” instead of “The shopping center was expanded by developers.”)
- *Bridging inferences* (This happens especially when respondents must make inferences about an introductory sentence in order to answer the question that follows. E.g., ensure introductory sentences do not contain information that must be comprehended in order for respondents to answer the question. In a follow-up study, Lenzner, Kaczmirek, and Galesic (2011) found that “bridging inferences may only undermine question comprehension if the introductory sentence contains implicit information which is crucial for understanding and answering the question” (p. 370).

¹ An excellent list of examples of nominalizations and an explanation of why they matter can be found at the Purdue Online Writing Lab (OWL). See “Sentence Clarity: Nominalizations and Subject Position” at <https://owl.english.purdue.edu/owl/resource/1002/01>.

Although understanding all of these text features can be challenging, we think it is well worth the investment of time to read and reread these explanations and examples to ensure quality question design.

Ambiguous Wording

Ambiguous wording makes questions very difficult for respondents to answer accurately. Many studies on question wording (Lenzner et al., 2010, for example) have shown that words and phrases open to multiple interpretations or difficult to understand are associated with respondents taking longer to answer, skipping questions, choosing “don’t know” or neutral responses more often, and otherwise providing nonsubstantive answers. Survey researchers must have a keen eye for identifying words and phrases whose meanings or interpretations are easily taken for granted but are in effect open to multiple interpretations or meanings. Consider the question in [Figure 4.2](#) from a well-known office supplies retailer.

Figure 4.2 ○ Real-World Questions: *Question Stem With an Ambiguous Term*

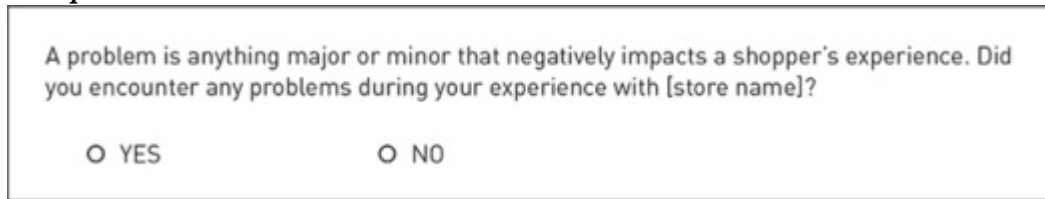
Did you encounter any issues during your experience with [store name]?

YES NO

Although a respondent might interpret the word *issues* as “problems” or “concerns,” exactly what the retailer is attempting to measure is not clear. Is this company interested in major or minor “issues”? Do they want to know if the pen and pencil aisle was a bit messy and the shopper spent a few more minutes than he would have liked searching for his preferred brand? Whether or not the item he was looking for was in stock? Or is the retailer interested in a potentially more significant complaint, such as a cashier being rude, overcharging, or giving out the wrong change? Ambiguous wording can typically be avoided by returning to the survey purpose and identifying exactly what is to be measured (e.g., constructs) before composing questions. If the purpose of the survey includes gathering data

about customer experience, the retailer would need to identify exactly *which* parts of the experience are important to understand (e.g., cleanliness of the store, availability of products, friendliness of cashier) and compose a series of questions to tease these out. If they want to know if a customer has encountered a problem that other questions did not identify, then the question could include the word *problem* (see [Figure 4.3](#)) along with an explanation of what is meant by the term or examples of the types of experiences they are looking for.

Figure 4.3 ○ A Suggested Alternative: *Use a Clearer Word and Offer Assistance With Interpretation*

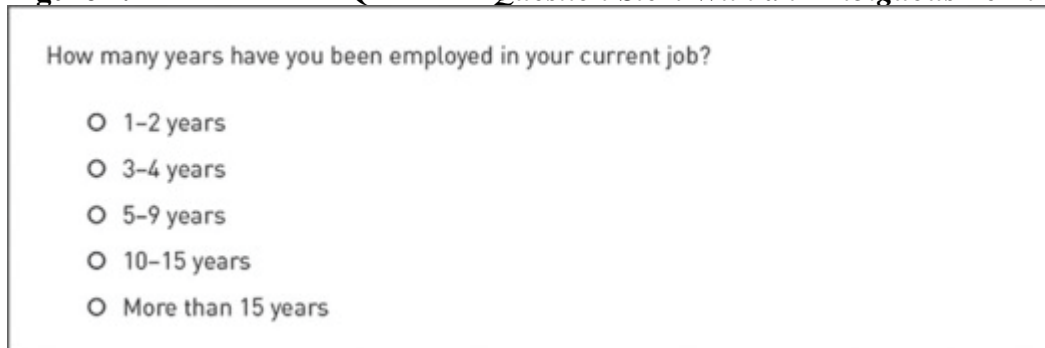


A problem is anything major or minor that negatively impacts a shopper's experience. Did you encounter any problems during your experience with [store name]?

YES NO

Ambiguous terms can easily hide in questions that sound perfectly reasonable. Consider the question in [Figure 4.4](#) from a prominent organization in survey research and polling.

Figure 4.4 ○ Real-World Questions: *Question Stem With an Ambiguous Term*



How many years have you been employed in your current job?

1–2 years
 3–4 years
 5–9 years
 10–15 years
 More than 15 years

How might a respondent interpret “current job” if she has held several positions within the same company? What if those positions were varying levels within the same general category such as department manager, assistant manager, manager, and store manager? Is the question asking how many years she has been a manager with the company or how many years she has in her current position as *store manager*? Knowing the purpose of the question is necessary to suggest less ambiguous alternatives. One suggestion is to add a brief description such as “We want to know only about your current job position or title” to clarify what information the researcher desires.

Using parameters around potentially ambiguous words. In [Chapter 1](#), we offered examples of potentially confusing words such as *family*, *farmer*, and *athlete*, illustrating potential problems respondents might have as they try to interpret them and determine what “counts” in each case. Adding language that places parameters around these types of words (i.e., clarifying what does and does not count as a *family* for the purpose of a particular study) is one strategy that can go a long way toward encouraging accurate responses and collecting high-quality data. For example, if a survey asks questions about the respondent’s family, an explanation such as “for the purpose of this survey, please think of ‘family’ as anyone related to you who is currently living in your home” will help respondents understand what researchers are looking for.

In [Chapter 3](#), we introduced the QUAID tool, an online program that provides feedback on question wording and sentence structure. This tool detects and offers feedback on several text features

(including potentially ambiguous words) that can interfere with comprehensibility, including the following:

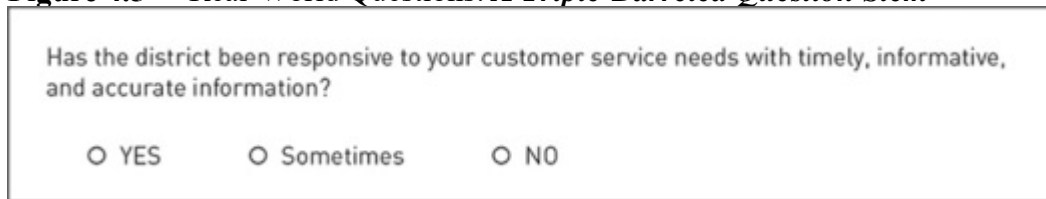
- Unfamiliar technical terms
- Vague or imprecise relative terms
- Vague or ambiguous noun phrases
- Complex syntax
- Working memory overload (QUAID Tool, n.d.)

The QUAID output alerts the researcher to the presence of these problems, letting the researcher know where parameters or explanatory language could increase comprehensibility. The tool can be helpful during the brainstorming and prototyping phases of question design, especially when used prior to any pretesting strategies (for more on finalizing questions and pretesting, see [Chapter 7](#)).

Double-Barreled Questions

Questions must ask respondents only one thing at a time. One of the most common survey design mistakes is to compose double- or even triple-barreled questions. Consider the examples in [Figures 4.5](#) and [4.6](#) from a school district customer service survey and a retail store survey.

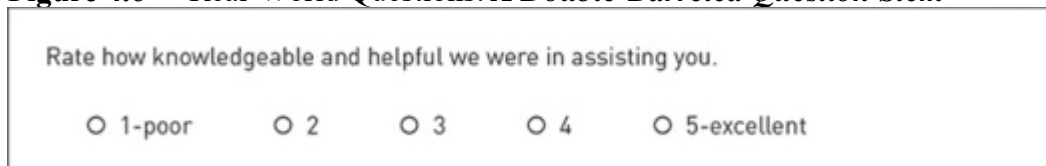
Figure 4.5 ○ Real-World Questions: *A Triple-Barreled Question Stem*



Has the district been responsive to your customer service needs with timely, informative, and accurate information?

YES Sometimes NO

Figure 4.6 ○ Real-World Questions: *A Double-Barreled Question Stem*



Rate how knowledgeable and helpful we were in assisting you.

1-poor 2 3 4 5-excellent

In the first example ([Figure 4.5](#)), if a respondent was a district community member and received timely information that turned out to be inaccurate or received accurate information but had to wait an inordinate amount of time for it (two plausible scenarios), how might the respondent answer this question? In the second example ([Figure 4.6](#)), if a respondent encountered a store clerk who was extremely friendly and helpful but did not demonstrate knowledge of the products of interest, how might the respondent answer this question?

It is easy to make this mistake given our desire to limit the number of questions included in a given survey. Often, a double- or triple-barreled question can be easily divided into two or three questions. Although this adds to the number of questions asked, it may not add to the time it takes to answer the questions. Two or three questions that are easier to comprehend are far less bothersome than one question respondents don't know how to answer. Sometimes, it is even feasible to develop a single question with multiple parts (see [Figures 4.7](#) and [4.8](#)).

Figure 4.7 ○ A Suggested Alternative: *Divide Question Stem Into Three Separate Parts*

Has the district been responsive to your customer service needs with information that is

a. Timely?	<input type="radio"/> YES	<input type="radio"/> Sometimes	<input type="radio"/> NO
b. Informative?	<input type="radio"/> YES	<input type="radio"/> Sometimes	<input type="radio"/> NO
c. Accurate?	<input type="radio"/> YES	<input type="radio"/> Sometimes	<input type="radio"/> NO

Figure 4.8 ○ A Suggested Alternative: *Divide Question Stem Into Two Separate Questions*

Please rate how knowledgeable we were in assisting you.

1-poor 2 3 4 5-excellent

Please rate how helpful we were in assisting you.

1-poor 2 3 4 5-excellent

Although it may seem as if double-barreled questions are easy to avoid, it's quite possible to compose a straightforward-sounding question without realizing that it actually asks more than one thing. Consider for example, "How often do you and your family take walks?" If the respondent is an avid walker but never goes on walks with family members, this may be difficult to answer, even though *never* may appear as a response option. Respondents want to please the researcher and provide accurate information. One way to steer clear of double-barreled questions is to read a question stem carefully and look for the possibility that one part of the question may be true whereas another part is false, leaving a respondent for whom this is the case no way to accurately answer. Avoid composing double-barreled questions by ensuring that each survey question asks respondents just one "thing" at a time.

Leading and Loaded Questions

Survey questions can also intentionally or unintentionally lead respondents to provide certain answers. Asking "How much did you enjoy the movie" uses language that implies that respondents did indeed *enjoy* the movie. Even if one of the response options is negative (e.g., "I did not enjoy the movie"), the question itself sets the respondent up to provide a more positive response, whether that is accurate or not. When question wording includes a reason for a respondent's opinion on a particular topic (as in the examples in [Figure 4.9](#)), that reason can load the question. This is especially true when the reason is socially desirable, such as saving lives or combating obesity.

Figure 4.9 ○ Examples of Loaded Questions

- Do you agree with federal laws on seatbelt use to save lives?
- Do you agree that sugary sodas should be banned in schools in order to combat childhood obesity in America?

Presuppositions, or facts tacitly assumed to be true, can be especially dangerous in survey questions. Details found in the wording of a question will often be presumed true by respondents, even when

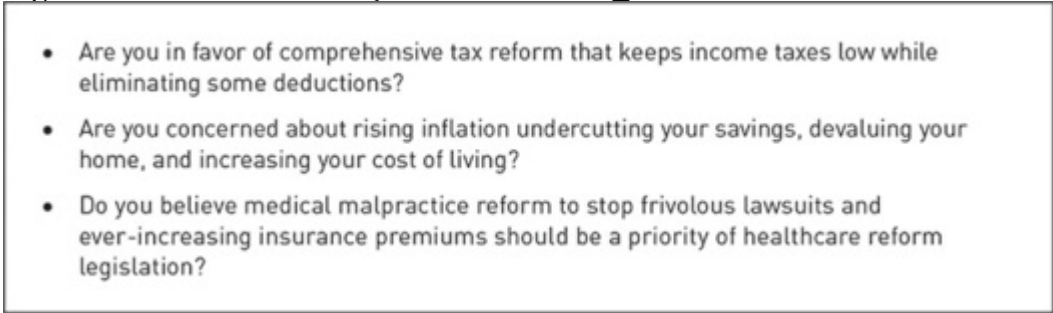
they are not. Consider this illustrative example of how a detail in the question can lead respondents to create false memories:

*Leading questions . . . can cause addressees to misremember the event as if the presupposition were true. A question like *How fast was the car going when it went through the yield sign?* can cause subjects to report the presence of a yield sign on a follow-up memory test, even if no such sign was part of the traffic event that subjects witnessed. (Tourangeau et al., 2000, p. 42)*

Many words and phrases are politically loaded and can both reflect different perspectives and significantly influence question responses. Consider these pairs:

- Pro-choice vs. pro-abortion
- Pro-life vs. anti-abortion
- Freedom fighters vs. anti-government guerillas
- War vs. armed conflict
- Taxes vs. revenues (Clark & Schober, 1992, p. 29)

Figure 4.10 ○ Real-World Questions: *Loaded Questions*

- 
- Are you in favor of comprehensive tax reform that keeps income taxes low while eliminating some deductions?
 - Are you concerned about rising inflation undercutting your savings, devaluing your home, and increasing your cost of living?
 - Do you believe medical malpractice reform to stop frivolous lawsuits and ever-increasing insurance premiums should be a priority of healthcare reform legislation?

Sometimes leading and loaded questions can be easy to spot. The questions in [Figure 4.10](#) appeared in a survey from an explicitly political group commonly associated with a particular party and therefore policy position.

However, sometimes loaded questions are not that easy to identify. To avoid unintentionally including such a question, careful pretesting strategies (see [Chapter 7](#)) can be employed to gather insight on how potential respondents might interpret not only the questions themselves but the individual words or phrases within them. Whether a question is leading or loaded can be tricky to tease out. The difference between the two is much less important than the ability to detect the presence of either one in any given question and to know when it is appropriate to use them strategically and purposefully. According to Clark and Schober (1992), “It is futile to search for truly neutral questions. They don’t exist” (p. 30).

It is futile to search for truly neutral questions. They don’t exist.

–Clark & Schober

All that said, a leading or loaded question may have a place in a well-designed survey under certain conditions. Some advocate the deliberate use of loaded questions to increase the likelihood that respondents will report on certain sensitive behaviors. An example of this includes adding wording to the introduction of the question (or question stem) to the effect that “it’s OK if you do this” or “many people do this,” giving respondents the message and comfort of thinking they are not alone or made to feel badly about engaging in potentially socially undesirable behaviors for questions that might have a level of sensitivity (see [Chapter 6](#) for more on sensitive questions and social desirability). This obviously requires deep understanding of the survey subject matter and the desired respondents well enough to know that such strategies would be more helpful than harmful to the research effort.

Open-Ended Questions

Open-ended or unstructured questions offer no response options, relying on the respondent to provide an answer. Open-ended questions come with their own set of considerations and implications, and many survey designers struggle with if, when, why, how, and even where to use open-ended questions in any given survey. Answers to open-ended questions can range from a single word or number (e.g., “What is your age?”) to a paragraph or even multiple-paragraph response (e.g., “How do you feel about the organization’s new management policies?”). Open-ended questions feel very natural. After all, we spend much of our lives in conversation with each other asking open-ended questions. They are also relatively easy to compose and feature the promise of collecting rich, nuanced, and detailed data. “Open questions produce fuller and deeper responses reflecting differences in opinions and attitudes that are missed by the constraints of pre-coded categories” (Bradburn & Sudman, 1988, p. 147). Open-ended questions also present a unique opportunity for the researcher to discover new and perhaps unexpected responses in comparison to more rigid, closed-ended questions.

However, open-ended questions require more time and effort on the part of respondents, something a researcher must carefully consider especially when determining *how many* open-ended questions are used in a single survey instrument. Too many open-ended questions, and we risk item nonresponse when respondents skip these questions, fail to provide meaningful answers, or fail to complete the remainder of the survey (a good argument for making these questions optional wherever possible). Respondents may also answer the question minimally, with little effort expended, resulting in less useful information than desired (Krosnick, 1999). Finally, open-ended questions also come with implications for data analysis, not the least of which is the need for the types of coding strategies that characterize qualitative analysis. This can very easily become an overwhelming proposition with massive amounts of text-based answers (i.e., qualitative data). Some online survey platforms and indeed some researchers are not well equipped to analyze qualitative data.

Design Details Open-Ended Versus Closed-Ended Questions



Open-ended questions are not necessarily superior or inferior to closed-ended questions, but it is important to note that comparative studies on questions presented in both formats have consistently yielded different results (see, for example, Schuman, Ludwig, & Krosnick, 1986; Schuman & Presser, 1979; Schuman & Scott, 1987). That is, the two questions—one open-ended and one closed-ended—will often result in different responses and

can lead researchers to make different interpretations of those results. Consider a scenario (see [Figure 4.11](#)) in which a survey features a closed-ended question about job satisfaction in the workplace.

When asked about the most important factors that contribute to their current level of job satisfaction, employees might choose “compensation” if offered as one of the response options in a closed-ended question. However, they may not offer “compensation” as part of an open-ended question response. Respondents to the open-ended version who do not list “compensation” in their answers either may not consider that the researchers are interested in compensation, or they may not think of it as a factor in their level of satisfaction. Unfortunately, researchers would not know this without conducting a comparative study using *both* forms of the job satisfaction question, and they would likely reach different conclusions using different versions of the question. Consider this scenario from the Pew Research Center (n.d.-b), a public opinion polling fact tank:

Figure 4.11 ○ Comparison of a Closed- and Open-Ended Question

Closed-ended question:	Open-ended question:
From this list, please choose the three most important factors that contribute to your level of satisfaction with your job.	What are the three most important factors that contribute to your level of satisfaction with your job?
<input type="checkbox"/> supervisor	
<input type="checkbox"/> coworkers	
<input type="checkbox"/> compensation	
<input type="checkbox"/> hours	
<input type="checkbox"/> nature of the work	
<input type="checkbox"/> location of the business	
<input type="checkbox"/> fringe benefits	

In a poll conducted after the presidential election in 2008, people responded very differently to two versions of this question: “What one issue mattered most to you in deciding how you voted for president?” One was closed-ended and the other open-ended. In the closed-ended version, respondents were provided five options (and could volunteer an option not on the list). When explicitly offered the economy as a response, more than half of respondents (58%) chose this answer; only 35% of those who responded to the open-ended version volunteered the economy. Moreover, among those asked the closed-ended version, fewer than one-in-ten (8%) provided a response other than the five they were read; by contrast fully 43% of those asked the open-ended version provided a response not listed in the closed-ended version of the question. All of the other issues were chosen at least slightly more often when explicitly offered in the closed-ended version than in the open-ended version.

Open-ended questions generally require more mental effort from respondents than do closed-ended questions that offer a specific set of response options. Open-ended questions demand greater attention to both formulating and encoding answers in writing. In addition to this increased level of cognitive load, some respondents may feel self-conscious about their writing ability or even embarrassed about sharing their writing with researchers and, thus, may hold back on offering too much in response to these questions.

Why Use Open-Ended Questions?

Open-ended questions can be used for many purposes:

1. When researchers believe that there will be too wide a range of potential responses to construct a reasonable list of response options for a closed-ended question.

2. When researchers are unsure about an appropriate set of response options for a particular closed-ended question. In a pretesting phase of a survey, an open-ended question can be used to identify the most common responses in order to construct a closed-ended question for the final instrument.
3. When researchers want to capture rich, detailed, and nuanced understanding of respondents' thoughts, feelings, opinions, attitudes, or experiences. This only works *if* (and this is a big IF!) respondents are able and willing to share these with us (see [Chapter 3](#) on respondent ability and willingness to participate in survey research).
4. When researchers want respondents to answer using their own “voice,” their own word choices and terminology and language that is comfortable for them.

How to Compose Open-Ended Questions

The best open-ended questions are simple and highly specific, letting respondents know exactly what we hope to learn from them without having to stumble through an overwhelmingly long or complicated question stem. Open-ended questions, like any question, should be written for comprehensibility, using language familiar to respondents. Survey designers can employ several strategies to encourage the best responses possible. The strategies we include here are aligned with our respondent-centered design and support the development of empathy for respondents. They help us put ourselves in their shoes and ask “what might cause me to want to make an effort to answer this question well?”

The best open-ended questions are simple and highly specific, letting respondents know exactly what we hope to learn from them.

Tell them why.

Providing introductory language that describes *why* the question is being asked or tells the respondent why this information is important to the research effort (Smyth, Dillman, Christian, & McBride, 2009) can encourage respondents to give longer, richer, and more detailed answers. Reja, Manfreda, Hlebec, and Vehovar (2003) advise,

Especially in the case of attitudinal questions, the researcher has to be very explicit in trying to get more specific answers, since many respondents answer in very broad terms. This is a particular problem in all self-administered questionnaires where there is no interviewer who could probe and motivate respondents to give more specific answers. (p. 174)

Here is an example of some encouraging introductory language we found in the invitation to a survey on cars and auto repair: *On a few occasions, we will ask you to type your answers. Please don't skip them; we read every one of them and are really curious to know what you think.* Researchers can emotionalize the appeal for information by emphasizing to them how the information will be used to improve programs, products, systems, policies, or practices—in other words, how these efforts will help people. This can be especially powerful if the people helped are also part of the respondent population (e.g., others who are parents, car owners, or runners).

Put fears to rest.

Introductory language can also serve to allay any anxiety respondents may have regarding their writing style (e.g., their grammar or spelling) by letting them know at the outset this will not be of concern to the researcher.

Communicate expectations.

Researchers can directly ask respondents to give detailed answers, letting them know the level of detail or approximate length of answers expected. Examples can be helpful at times but need to be balanced with the desire to keep the survey language brief and straightforward.

Break longer or complex questions into separate parts.

Respondents will often fail to answer one or more parts of a complex question that asks several things at once. Rather than ask one multipart question, ask a series of simple, direct questions (see [Figure 4.12](#)).

Figure 4.12 ○ Converting a Multipart Question to Separate Questions

A multipart question:	Separate questions:
1. Describe your general reaction to the movie. Which was your favorite part, and why? Which part did you like least, and why?	1. Describe your general reaction to the movie. 2. Which was your favorite part? a. Why? 3. Which part did you like least? a. Why?

When to Use Open-Ended Questions

Open-ended questions are typically used sparingly in surveys, but there are several reasons researchers may choose to include them, including when

- more detailed, nuanced answers are useful;
- answers in respondents' own words are needed;
- exact numbers are needed (e.g., how many cars a respondent owns);
- the range of possibilities is virtually infinite (e.g., how many sexual partners a respondent has had);

- researchers suspect that providing response options may overly influence answers; and when
- the survey is in a pretesting phase and an open-ended question is needed to determine the general range of responses it will generate in order to inform the eventual design of a closed-ended question.

Additionally, not all questions about behavior need a set of response options, and some may be better asked as open-ended questions. For example, offering a set of responses for sensitive questions like, “How many sexual partners have you had in the last year?” may encourage respondents to “edit” their answers for reasons of social desirability (see [Chapter 6](#) for more on social desirability). It may happen this way: respondents read the question, search their memories, and come up with a number they believe is accurate. However, they also believe that they are “average” in comparison to other respondents. So, upon reading a closed-ended question that contains a set of response options, they decide to select a middle option *regardless* of the number they came up with, assuming that the researchers who designed the survey offered response options that capture a range that is typical for respondents like them. We discuss how response options influence answers in greater detail in [Chapter 5](#).

If it is reasonable and feasible to do so, we advise ending a survey with what we call an “invitational open-ended question.” This can be as simple as asking, “Is there anything else you would like to share about {topic}?” Despite our best efforts to empathize with and understand respondents, the balance of power inevitably remains with the researcher. Pettit (2016) reminds us of the unique relationship of survey researcher and respondent and advises,

For the entire survey, you, the researcher, have been in charge. You have dictated every topic and every answer. You have bossed people around. Now it’s time to give power to the people. Give people space to expand on their answers, give answers to questions you didn’t ask. (p. 7)

Allowing respondents to have a voice in this way returns some of the power that researchers hold to our respondents and may in fact result in learning even more than expected.

Closed-Ended Questions

Closed-ended or structured questions are composed of two parts, the question stem and a set of researcher-generated response options. Closed-ended questions are omnipresent in survey research due to their efficiency and reliability. They are easy to analyze and provide a tidy, uniform dataset. Closed-ended questions allow the researcher to make broad comparisons among respondents with ease. The response options that accompany closed-ended questions can stimulate respondents’ thinking and remind them of alternatives that may not have come to mind if the question were posed as an open-ended one (see [Figure 4.11](#) for a comparison of a closed- and open-ended question). For example, if asked in an open-ended question format about the most pressing challenge public school districts face today, respondents might come up with a whole range of possibilities, such as too many mandates, too little funding, class sizes, or student achievement. The issue of poverty may or may not come up. If asked as a closed-ended question that includes *poverty* as one of the response options, respondents may select *poverty* even if they would not have listed it as a response to an open-ended question. The downside of the availability of response options is that some respondents may guess or answer randomly, rather than devoting time to a more thoughtful response. “Closed-ended questions,

in a sense, compel respondents to choose a ‘closest representation’ of their actual response in the form of a specific fixed answer” (Rea & Parker, 2014, p. 34). It is critical that a researcher carefully balance the pros and cons of open- and closed-ended questions in constructing an effective survey.

Closed-ended questions appear deceptively easy to write. However, most of the poor questions we have encountered are closed-ended questions, often with problematic response options. A number of things can go awry, but the two most common mistakes we’ve seen are response options that are not exhaustive and mutually exclusive. For closed-ended questions to be effective, response options must be both *exhaustive*—they must fully cover the range of expected responses—and *mutually exclusive*—they must not overlap (i.e., they must not encourage or compel a respondent to select more than one). [Figure 4.13](#) features a question with insufficient response options. The list does not represent the entire range of possible responses and so is not *exhaustive*. [Figure 4.14](#) features a question with overlapping response options, leaving potential respondents *two* correct choices for their answer to the question; thus, the response options are not *mutually exclusive*. Problems we have routinely uncovered include incomplete sets of response options and ambiguous or unclear categories, among many others.

Closed-ended questions, in a sense, compel respondents to choose a “closest representation” of their actual response in the form of a specific fixed answer.

–Rae & Parker

Figure 4.13 ○ Real-World Questions: *Insufficient Response Options*

How often do you visit the {department name} website?

- This is my first time
- About once a year or less
- About once a month
- About once a week
- About every day

How might a respondent answer if he visits twice a week? Three or four times per year? These options, among others, are missing. This set of response options is not exhaustive (we revisit this question and offer a possible alternative in Chapter 5).

Figure 4.14 ○ Real-World Questions: *Overlapping Response Options*

How long have you owned your product?

- Less than 1 year
- 1–3 years
- 3–5 years
- More than 5 years

How might a respondent answer if she has owned the product for 3 years? 5 years? These answers appear in two response options each and are thus not mutually exclusive.

Types of Closed-Ended Questions

The most common types of closed-ended questions are outlined in this section. Each type includes a question stem and is characterized by the number or format of response categories and the number of possible responses (i.e., whether respondents are expected to choose one category or more than one).

Design Details

Common Types of Closed-Ended Questions



All closed-ended questions start with a question stem and include a finite set of response options.

- Multiple choice
- Check all that apply
- Rating scale
- Ranking scale
- Semantic differential scale

Multiple choice.

These questions (see [Figure 4.15](#)) feature two or more response options. When only two options are present (as in yes/no or true/false questions) we refer to them as **dichotomous questions**.

Respondents are generally expected to choose one category only for multiple-choice questions, unless directions specify a different number. Respondents can be directed to choose *exactly* a certain number of responses or *up to* a certain number. Each has specific implications for data analysis.

Figure 4.15 ○ *Multiple Choice Questions*

A dichotomous question:

Do you own or rent your home?

- Own
- Rent

Multiple-choice questions with specific instructions for responding:

What device do you use most often to compose email? (Choose only one)

- Desktop computer
- Laptop computer
- Tablet computer
- Cell phone

What are the three most important programs our agency offers? (Choose exactly three)

- Program A
- Program B
- Program C
- Program D
- Program E
- Program F

What are your favorite ice cream flavors? (Choose up to five)

- Chocolate
- Vanilla
- Pistachio
- Banana
- Rocky Road
- Butter Pecan
- Strawberry
- None of these

Check all that apply.

These are a subset of multiple-choice questions in which respondents are asked to choose as many categories as they feel apply to the question stem (see [Figure 4.16](#)). These questions can be problematic in that some studies (e.g., Rasinski, Mingay, & Bradburn, 1994) have shown that respondents do not always read and consider all categories, especially if the list of categories is long. Whereas a checked box can indicate a respondent's endorsement of that particular item, an unchecked box leaves the researcher not knowing whether the item applies to the respondent, whether the respondent was unsure as to whether the item applied, or whether the respondent even saw, read, or considered the item. An alternative to asking a "check all that apply" question is to ask about each list item separately as a dichotomous (i.e., yes or no) question. This alternative also makes for more straightforward analysis. However, there are implications for this as well, especially if there is a specific need to measure how many or in what combinations respondents choose list items.

Figure 4.16 ○ *Check All That Apply Question*

How did you hear about our product? Please check all that apply.

- Television
- Radio
- Newspaper
- Website
- Word of mouth
- Other

Dichotomous question alternative to check all that apply:

Do you own the following devices? Place an X on the line for YES or NO.

	YES	NO
Television	_____	_____
Smartphone	_____	_____
DVD player	_____	_____
Desktop computer	_____	_____
Laptop computer	_____	_____
Tablet computer	_____	_____
Stereo system	_____	_____

Rating scale.

These are a subset of multiple-choice questions with three or more response options on some sort of continuum with an inherent order (see [Figure 4.17](#) for a poor rating scale question and [Figure 4.18](#) for a good one). To design a good rating scale question, researchers must do the following:

- Carefully choose wording that aligns with the question stem
- Determine the appropriate number of response categories on the scale
- Craft either a **unipolar** (i.e., from the absence of something to the presence of something as in “not satisfied” to “satisfied”) or **bipolar** (i.e., from one polar opposite to the other as in “dissatisfied” to “satisfied”)
- Include a midpoint, neutral, don’t know, or not applicable category as needed (one or more of these is often needed)
- Label the response options if needed (such as with numbers or words)

Rating scale questions have generated substantial discussion, controversy even, among researchers. There is very little definitive research on the best ways to construct rating scales and therefore little agreement among researchers on the many aspects of doing so. However, because the wording, number, and even the order of response options can significantly influence responses, and because each of these decisions carries with it specific advantages and disadvantages, we have devoted much of [Chapter 5](#) to the research and resulting advice on constructing rating scales.

Figure 4.17 ○ *Rating Questions With Misaligned Response Options*

Please indicate how useful the following content will be to your work going forward:

	Strongly disagree	Disagree	Agree	Strongly agree	N/A
The webinar on the topic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The research we shared	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The document we sent	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

On a scale of 1–10 please rate how our website performed on the following:
The specific product you were looking for was available for purchase on our website:

Poor									Excellent
1	2	3	4	5	6	7	8	9	10
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Figure 4.18 ○ *Rating Scale Questions With Properly Aligned Response Options*

How useful did you find our product?

- Very useful
- Somewhat useful
- Not at all useful

I believe that cursive handwriting should be taught in U.S. elementary schools.

- Strongly disagree
- Disagree
- Neither agree nor disagree
- Agree
- Strongly agree

On a scale of 1–10 where 1 = very poor and 10 = outstanding, please rate our customer service:

1	2	3	4	5	6	7	8	9	10
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Ranking scale.

Yet another subset of multiple-choice questions, ranking questions ask respondents to choose a specific number of response options *in order* (e.g., from greatest/most to least) on a certain dimension, such as preference, importance, or intensity (see [Figure 4.19](#)). Varieties of ranking questions ask respondents to rank all available options, or only some (e.g., rank your top three choices). Respondents can also be asked to rank a certain number of both top and bottom choices (e.g., rank the four most important and four least important). Limiting the number of options a respondent is asked to select is especially helpful if the list of available options is long. Respondents typically have an easier time identifying choices that are the best fit for them at the ends of a scale

(e.g., most and least preferred) as compared to those in between. Ranking scales are also especially useful when the expectation is that respondents feel generally favorably about all options.

Figure 4.19 ○ *Ranking Scale Questions*

Rank each of these colors in order from your most favorite (1) to your least favorite (7):

- _____ blue
- _____ red
- _____ green
- _____ purple
- _____ pink
- _____ brown
- _____ yellow

Of the following places, rank only the three (3) most exciting vacation spots (even if you have never traveled there):

- _____ New York City
- _____ Orlando, Florida
- _____ Paris, France
- _____ San Diego, California
- _____ Rome, Italy
- _____ Sydney, Australia
- _____ London, England
- _____ Honolulu, Hawaii

Although ranking questions allow respondents to help us understand how they see response options in relation to each other, these questions do not allow us to understand the strength or intensity of respondents' feelings. For example, in [Figure 4.19](#), a respondent may choose Paris, France, as her first preferred vacation spot, and Orlando, Florida, and New York City as choices 2 and 3. The respondent may, in fact, absolutely *love* traveling to all three places and may have found it difficult to rank them as she did. Or it is possible that the respondent finds Paris, France, *very* exciting and the other two much less so. The point is that we cannot know this from a response to one ranking scale item.

Semantic differential scale.

This type of question, or more accurately *series of questions*, usually features a list of adjectives (or short adjective phrases) respondents might use to describe something (e.g., a concept, event, or product) along with their polar opposites (e.g., small-large; hot-cold) and plotted at the ends of a numeric rating scale (see [Figure 4.20](#)). The numeric scale most often includes seven options between the poles, though sometimes only five options are used. The scale can also be drawn as a simple horizontal line with no numeric labeling, allowing the respondent to mark approximately where on the line (between the two poles) she feels her answer belongs. This presents unique challenges for analysis and interpretation because respondents would be able to make their marks anywhere on the line.

A single item on a semantic differential scale is essentially a bipolar rating scale item. The group of items that make up the semantic differential scale is a composite measure designed to give the researcher a sort of image of how respondents perceive the thing being measured. An advantage of

using this type of survey question is that it allows respondents to report their feelings about a topic or construct in degrees, thus providing for a fairly wide range of responses that can give us a detailed understanding of a concept.

Figure 4.20 ○ *Semantic Differential Scale*

I found this hotel:								
DIRTY	○	○	○	○	○	○	○	CLEAN
UNFRIENDLY	○	○	○	○	○	○	○	WELCOMING
UNCOMFORTABLE	○	○	○	○	○	○	○	COMFORTABLE
INADEQUATE	○	○	○	○	○	○	○	ADEQUATE
EXPENSIVE	○	○	○	○	○	○	○	INEXPENSIVE



Discussion Questions

- How might you go about determining whether to search for an existing survey tool or design a survey from scratch?
- How might you know when to engage potential respondents in the question drafting (or prototyping) phase of survey design?
- What are some possible specific scenarios when open-ended questions might be needed?



Design Drills

1. Research Scenario, Part 4 (additional parts are found in other chapters): You are developing a survey that will ask low-income senior citizens about their behaviors and thoughts related to a program delivered at local libraries. The program is intended to help senior citizens feel more engaged with their communities and to be more social, given concerns about seniors becoming too isolated.
 - a. What question types might you employ in drafting your survey? What else might you need to know to determine what question types you should use, or to otherwise begin drafting questions?
 - b. Walk through the design thinking process for this survey. What might you do at each stage? How might each stage impact the questions you draft?
 - c. Draft five questions for the survey, using at least three types of questions. You'll use this draft in a future chapter's exercises.
2. Consider a current highly politically charged or controversial topic in the news today. How might you construct a set of questions to measure respondents' attitudes about this topic? What strategies would you use to build rapport with respondents and avoid using leading or loaded questions?
3. Your survey: Practice composing variations of each question type presented in the chapter, based on the research question and survey purpose you identified in [previous chapters](#).



Extended Learning

- Alreck, P. L., & Settle, R. B. (2004). *The survey research handbook* (3rd ed.). Chicago: Irwin.
- Fowler, F. J. (2014). *Survey research methods* (5th ed.). Thousand Oaks, CA: Sage.

- Rea, L. M., & Parker, R. A. (2014). *Designing and conducting survey research: A comprehensive guide* (4th ed.). San Francisco: Jossey-Bass.