qualtrics



7 Tips for Writing Great Questions

Details, details, details. Follow these simple tips to make sure you get the little things right in your next survey.

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1. Avoid Leading Words / Questions

Subtle wording differences can produce great differences in results. “Could,” “should,” and “might” all sound about the same, but may produce a 20% difference in agreement to a question.

Q-TIP

Strong words, such as “force” and “prohibit” represent control or action and can bias your results.

EXAMPLE

The government should force you to pay higher taxes.

No one likes to be forced, and no one likes higher taxes. This agreement scale question makes it sound doubly bad to raise taxes. Wording alternatives can be developed. How about simple statements such as: *The government should increase taxes, or the government needs to increase taxes.*

How would you rate the career of legendary outfielder Joe DiMaggio?

This question tells you Joe DiMaggio is a legendary outfielder. This type of wording can bias respondents. How about replacing the word “legendary” with “baseball” as in: *How would you rate the career of baseball outfielder Joe Dimaggio?*

2. Give Mutually Exclusive Choices

Multiple choice response options should be mutually exclusive so that respondents can make clear choices. Don’t create ambiguity for respondents.

Q-TIP

Review your survey and identify ways respondents could get stuck with either too many or no correct answers. Revise accordingly.

EXAMPLE

What is your age?

○ 0-10 ○ 10-20 ○ 20-30 ○ 30-40 ○ 40+

What answer would you select if you were 10, 20, or 30? Questions like this will frustrate a respondent.

What type of vehicle do you own?

○ Van ○ SUV ○ Sedan

This question has the same problem. What if the respondent owns a truck, hybrid, convertible, cross-over, motorcycle or no vehicle at all?

3. Ask Direct Questions

Questions that are vague and do not communicate your intent can limit the usefulness of your results. Make sure respondents know what you're asking.

Q-TIP

Test your survey with five friends and check to see if responses are on topic.

EXAMPLE

What suggestions do you have for improving Tom's Tomato Juice?

This question may be intended to obtain suggestions about improving taste, but respondents will offer suggestions about texture, the type of can or bottle, about mixing juices, or even suggestions relating to using tomato juice as a mixer or in recipes.

What do you like to do for fun?

Finding out that respondents like to play Scrabble isn't what the researcher is looking for, but it may be the response received. It is unclear that the researcher is asking about movies vs. other forms of paid entertainment. A respondent could take this question in many directions.

4. Add a "Prefer Not to Answer" Option

Sometimes respondents may not want or be able to provide the information requested.

Questions about income, occupation, finances, family life, personal hygiene, and personal, political, or religious beliefs can be too intrusive and be rejected by the respondent. Privacy is an important issue to most people. Incentives and assurances of confidentiality can make it easier to obtain private information.

While current research does not support that PNA (Prefer Not to Answer) options increase data quality or response rates, many respondents appreciate this non-disclosure option.

Furthermore, different cultural groups may respond differently. One recent study found that while U.S. respondents skip sensitive questions, Asian respondents often discontinue the survey entirely.

Q-TIP

Some types of demographic questions are very sensitive for some categories of respondents. So when in doubt, give respondents a PNA for the question.

EXAMPLE

What is your race? What is your age? Did you vote in the last election? What are your religious beliefs? What are your political beliefs? What is your annual household income?

These questions should be asked only when absolutely necessary. In addition, they should always include an option to not answer (e.g. "Prefer Not to Answer").

5. Cover All Possible Answer Choices

Do you have all the options covered? If you are unsure, conduct a pretest using "Other (please specify)" as an option.

Q-TIP

If more than 10% of respondents (in a pretest or otherwise) select "other," you are probably missing an answer. Review the "Other" text your test respondents have provided and add the most frequently mentioned new options to the list.

EXAMPLE

You indicated that you eat at Joe's Fast Food once every 3 months. Why don't you eat at Joe's more often?

- ○ There isn't a location near my home
- ○ I don't like the taste of the food
- ○ Never heard of it

This question doesn't include other options, such as healthiness of the food, price/value or some "other" reason. Over 10% of respondents would probably have a problem answering this question.

6. Use Unbalanced Scales Carefully

Unbalanced scales may be appropriate for some situations and promote bias in others. For instance, a hospital might use an Excellent - Very Good - Good - Fair scale where "Fair" is the lowest customer satisfaction point because they believe "Fair" is absolutely unacceptable and requires correction.

The key is to correctly interpret the scale. If "Fair" is the lowest point on a scale, then a result slightly better than fair is probably not a good one.

Additionally, scale points should represent equi-distant points on a scale. That is, they should have equal conceptual distance from one point to the next. For example, researchers have shown the points to be nearly equi-distant on the strongly disagree–disagree–neutral–agree–strongly agree scale.

Q-TIP

Set your bottom point as the worst possible situation and top point as the best possible, then evenly spread the labels for your scale points in-between.

EXAMPLE

What is your opinion of Crazy Justin's auto-repair?

○ Pretty Good ○ Great ○ Fantastic ○ Incredible ○ The Best Ever

This question puts the center of the scale at fantastic, and the lowest possible rating as "Pretty Good." This question is not capable of collecting true opinions of respondents.

7. Ask One Question at a Time

There is often a temptation to ask multiple questions at once. This can cause problems for respondents and influence their responses.

Q-TIP

Review each question and make sure it asks only one clear question.

EXAMPLE

What is the fastest and most economical Internet service for you?

This is really asking two questions. The fastest is often not the most economical.

How likely are you to go out for dinner and a movie this weekend?

Even though "dinner and a movie" is a common term, this is two questions as well. It is best to separate activities into different questions or give respondents these options:

○ Dinner and Movie ○ Dinner Only ○ Movie Only ○ Neither

Summary

While not totally inclusive, these seven tips are common offenders in building quality questions:

- Avoid leading words/questions
- Give mutually exclusive choices
- Ask direct questions
- Consider adding a “Prefer not to answer” option
- Cover all the possible choices
- Use unbalanced lists carefully
- Ask one question at a time

These tips focus on creating clear questions and having an understandable, appropriate, and complete set of answer choices. Great questions and great answer choices lead to great research success.

BOOK 2 NOTE

Concepts, Constructs, Variables & Measurement

Survey research drives many decisions of practical interest, including concept testing for new products, positioning brand and corporate image, evaluating ad copy, and determining how to satisfy customers. Regardless of the research topic, useful data is obtained only when the researcher exercises care in defining:

1. What construct is to be measured?
2. How is the construct measurement to be scaled?
3. How is the measurement conducted?
4. How is the resulting data analyzed?

Definitions and decisions play a significant role in scientific inquiry, especially in marketing research and the behavorial sciences.

In this note, we focus on conceptual and operational definitions and their use in research. Increasingly, behavioral scientists are paying greater attention to defining concepts and their associated measurement scales.

Later, we discuss measurement scales and their relationship to selecting appropriate statistical techniques. This section serves as useful background for the discussion of statistical analysis.

The overall quality of research project depends not only on the appropriateness and adequacy of the research design and sampling techniques, but also on measurement procedures.

Definitions in Marketing Measurement

Marketing success is measured by new product ratings, increased brand awareness, brand likeability ratings, uniqueness, purchase intent, and customer satisfaction. Researchers often model and measure these constructs.

Models represent reality and therefore raise the fundamental question of how well the model represents reality on all significant issues. The quality of a model is judged against the criteria of *quality* and *utility*. Quality refers to a model's accuracy in describing and prediciting reality; whereas, utility refers to the value of model adds to decision making. A sales forecasting model that does not forecast sales accurately is worse than no sales forecasting model at all because of the impact on morale, hiring, and expenditures.

Model quality depends on two drivers of model accuracy: completeness and validity. Managers should not expect a model to make decisions for them, but instead models should be viewed as one additional piece of information to help them make decisions.

Managers clearly benefit from models that are easy to understand and manage operationally. But models for million-dollar decisions should be more complete than those used to make hundred-dollar decisions. The sophistication of a model depends on the model's purpose. One measure of a model's value is its efficiency in helping us make a decision. Models should be used only when they can help us get results faster with less expense or more validity.

Building Blocks for Measurement & Models

We cannot measure attitude, market share, sales or any other concept without first understanding what we are measuring and how it is defined, formed, and related to other marketing variables. With this in mind, we briefly mention the building blocks of measurement theory: concepts, constructs, variables, operational definitions, and propositions.

CONCEPTS & CONSTRUCTS

A concept is a theoretical abstraction formed by a generalization about particulars. "Mass," "strength," and "love" are all concepts, as are "advertising effectiveness," "consumer attitude," and "price elasticity." Constructs are also concepts, but they are observable and measurable and defined in terms of other constructs. For example, the construct "attitude" may be defined as "a learned tendency to respond in a consistent manner with respect to a given object." Attitudes are often measured as a sum of brand attribute performance and importance evaluations.

VARIABLES

Researchers loosely give the name "variables" to the constructs that they study. A question in a survey is a variable representing the constructs in measured and quantified form. The answer reports the different values that the respondents give to the variable.

MEASUREMENT

We can talk about "consumer attitudes" as if we know what the term means, but the term makes little sense until we define it in a specific, measurable way. An operational definition assigns meaning to a variable by specifying what is measured and how it is measured. It is a set of instructions defining how we are going to treat a variable. For example, expectancy value models use attitudes to predict behavioral intention (intention to try, intention to purchase, intention to recommend, or intention to re-purchase a product or service). First developed in the 1960's, this methodology has become a mainstay of marketing research and performs well in predicting both consumer behavior and consumer satisfaction/dissatisfaction.

The Expectancy value model uses attitudes and beliefs in a mathematical formulation that links attitudes to intentions to behavior in the following manner:

- Actual purchase of a Toyota Prius (Behavior B), is approximated by intention to purchase a Toyota Prius (Behavioral Intention B), which in turn is approximated by the Overall Attitude toward a Toyota Prius.
- The Overall Attitude toward a brand, which in this case is the Toyota Prius, equals the sum of all relevant and important attitudes, $(\sum_{i}^{k}=1 a_i)$ about the brand. These attitudes are weighted by how important each attitude is in the purchase decision process (bi).

- The overall attitude is formed by mulitplying ai (the person's liking of attribute i), by bi (the importance of attribute i in the purchase decision).

Mathematically, this is expressed as: $$B \approx BI \approx A_0 = \sum_{i=1}^{k} (a_i * e_i)$$

Operationally, ai is the affective (liking) component of the evaluation of attributte i. The evaluation would use a five or seven point scale with endpoints ranging from "Poor" to "Excellent" or "Not at all Desirable" to "Very Desirable." (See the far right panel of *Figure 1*).

Operationally, ei (the importance of attribute i in the context of behavior B), is sometimes measured as the probability of attribute i being associated with brand X. At other times, it is measured as the importance of attribute i in achieving behavior B. Using the context of purchasing a Toyota Prius, the attribute "Get 50 miles per gallon" could be rated on a seven point scale with endpoints labeled "Very Unlikely" and "Very Likely," or as in the example below, is measured as "Not at all Important" to "Very Important." See the left side of *Figure 1.*

	IMPORTANCE				**PERFORMANCE**			
	Not at all Important	Somewhat Unimportant	Somewhat Important	Very Important	Not at all Desirable	Somewhat Undesirable	Somewhat Desirable	Very Desirable
Gets 50 miles / gallon	○	○	○	○	○	○	○	○
Has a 6 year 60,000 mile drive train warranty	○	○	○	○	○	○	○	○

Figure 1: Expectancy Value Importance-Performance Rating Scales

The expectancy value model predicts behavior by summing the attitudes and beliefs about a product's most important attributes (*Figure 2*). This powerful approach to measuring customer attitudes and predicting customer behavior is a mainstay in consumer research and the basis of many popular indices and methodologies.

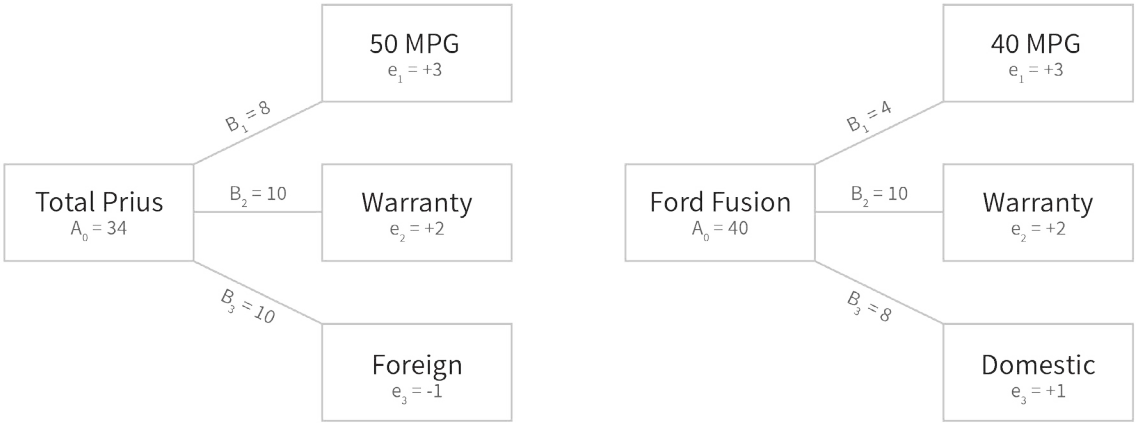


Figure 2: Expectancy Value Computations

Attitude _Prius = ∑_(i = 1)^3 a_i*e_i
APrius = (8)(3) + (10)(2) + (10)(-1)
= 24 + 20 + (-10)
= 34

Attitude _Fusion = ∑_(i = 1)^3 a_i*e_i
AFusion = (4)(3) + (10)(2) + (8)(1)
= 12 + 20 + 8
= 40

PROPOSITIONS

A proposition defines the relationships between variables. Both the variables influencing the relationship and the form of the relationship must be specified. For example, the concept "sales" is some function of the concept "advertising," such the Sales = f (Adv). This relationship can be made more complex by adding intervening variables along with the relevant ranges for the effect, including where we would observe saturation effects, threshold effects, and the mathematical shape of the relationship (linear, curvilinear, etc.).

INTEGRATION INTO A SYSTEMATIC MODEL

A model is produced by linking propositions together to provide a meaningful explanation of a system or a process. A research plan then links concepts, constructs, variables, and propositions into a model for the research. Conceptually, we should ask the following questions:

- Are concepts and propositions specified?
- Are the concepts relevant to solving the problem?
- Are the principal parts of the concept clearly defined?

- Is there consensus as to which concepts explain the problem?
- Are the concepts properly defined and labeled?
- Is the concept specific enough to be operationally reliable and valid?
- Do we link the concepts through clear assumptions made in the model?
- Are the limitations of the model stated?
- Can the model explain and predict?
- Can the model provide results for managerial decision making?
- Can the model be readily quantified?
- Are the outcomes of the model supported by common sense?

If the model does not meet the relevant criteria, it should be revised: concept definitions made more precise; variables redefined, added, or deleted; operational definitions and measurements tested for validity; and/or mathematical forms revised.

Inaccuracies in Measurement

Before delving into measurement scales and question types, it is helpful to remember that measurements in marketing research are rarely "exact." Inaccuracies in measurement arise from a variety of sources or factors. We can categorize the possible sources causing variations in respondent scores as follows:

- True differences in the characteristic or property
- Relatively stable characteristics of individuals that affect scores (intelligence, extent of education, information processed)
- Transient personal factors (health, fatigue, motivation, emotional strain)
- Situational factors (rapport, distractions)
- Variations in administering the measuring instrument, such as interviewers
- Sampling items included in the instrument
- Lack of clarity (ambiguity, complexity, interpretation of words and context)
- Mechanical factors (lack of space to record response, appearance of instrument, browser incompatibility)
- Factors in the analysis (scoring, tabulation, statistical compilation)
- Variations not otherwise accounted for (chance), such as guessing an answer

Ideally, variation within a set of measurements would represent only true differences in the characteristic being measured. Many sources of potential error exist in measurement. Measurement error has a constant (systematic) dimension and a random (variable) dimension. We expect random error (it is just as likely to be greater than the true values as less) to sum (all errors for any single variable) to zero and is, therefore, less worrisome than nonrandom measurement error.

Systematic error is a flaw in the measurement instrument, the research, or the sampling design. Unless the flaw is corrected, the researcher can do nothing to get valid results after the data are collected. These two subtypes of measurement error affect the validity and reliability of measurement and were discussed in the first volume of this book. Now that we are aware of the conceptual building blocks and errors in measurement and that they relate to developing measurement scales, we will consider the types of measurement and associated questions commonly used in marketing research.

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