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The purpose of the Mercyhurst Civic Institute

• Enhance and facilitate citizen participation in decision-making.

• Provide high-quality, objective information to assist local decision-making.

• Convene community forums that encourage reasoned reflection and free and open discussion of regional issues.

• Educate the Erie community and Commonwealth of Pennsylvania about various issues through Institute reports and publications.

• Foster human networks that enhance communication, link resources, strengthen community participation and build social capital.

• Promote research, learning, teaching and service opportunities for the Mercyhurst community.

Not All Surveys are Created Equal: Tips for Survey Design

By: Kristen Burillo

Surveys are a widely used data collection tool because they can be created on almost any topic and they allow the researcher to gather information from a large group of people. Though surveys are widespread, all surveys are not created equal. Searching the literature may allow you to find a survey that has already been tested for reliability and validity (see next page for definitions). When you cannot use a pre-existing survey to gather information, there are some recommendations for survey design that will increase your response rate and help with obtaining accurate data. This article will review some of the basic recommendations for designing written surveys (please see other sources for information on choosing a survey modality).

Survey Format

The overall format of the survey (as opposed to each individual question) can impact the accurateness of the data and the subjects' willingness to respond[1]. In general, the survey should be a booklet or one-sided and stapled[2]. The survey should begin with an introduction that includes a statement of purpose; identifies the researcher, organization, or sponsor conducting the survey; estimates the length of time it will take to complete the survey; reminds the respondent that participation is voluntary; and assures the respondent that the answers will remain confidential[3,4]. The author of the survey should also identify what the respondent should do if he or she has questions or concerns[2]. Rather than place instructions in the introduction, specific directions should be given for each section or type of question as needed[2,3].

The first question makes a first impression on the respondent and may determine how likely he or she is to respond to the survey in its entirety. It also sets the logic and flow of the survey[2].

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The first question should be:

- general but connect with the survey's title or identified purpose[2,5]
- applicable to all respondents[2]
- formatted as a closed-response as opposed to open-ended[2]
- interesting to the respondent (keep demographic questions for the end)[1,2,5,6]
- easy to complete within a few seconds[2]
- noncontroversial (leave sensitive questions for the end of the survey)[2,3]

Reliability
the extent to which a measurement is consistent, can be reproduced, and avoids error

Validity
the extent to which an instrument measures what it is intended to measure

In general, shorter questions are better as are answer options that are listed vertically[2]. It is recommended that questions be printed in dark ink and answers be printed in light ink[2]. There should be more space between questions than the components within questions[2]. The respondent should not have to turn the page between the question and answer choices[3]. The survey should begin with general questions and progress to more specific questions[3,6]. The survey should be organized by topic with transitional statements signaling a move to a new topic[3]. It is best to maintain the same type of question and response format throughout a topic if possible[3].
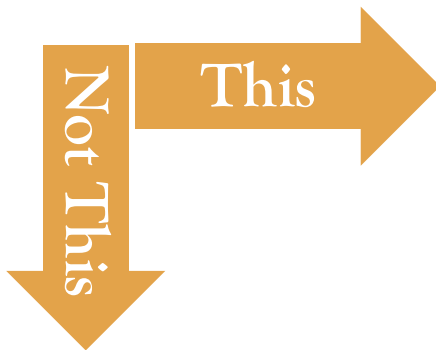
Not This

This

What is your highest level of education completed?
__ Did not complete high school
__ High School
__ Associates Degree
__ Bachelor's Degree
__ Post-Bachelor's Degree

Don't forget to consider the literacy level of your potential respondents and write your survey accordingly! Test your readability here: readability-score.com read-able.com

What is your highest level of education completed?
__ Did not complete high school __ High School __ Associates Degree __ Bachelor's Degree __ Post-Bachelor's Degree

Question Wording

Not only is the overall format of the survey important, but each question should be carefully considered so that respondents understand what is being asked and have a way to accurately indicate his or her response. Every time the topic changes or the type of question changes, the respondent should be cued. This pre-question information, or preamble, can include the topic, the timeframe to consider for recall, the instructions (such as check one or choose all), and the definition of any terms or concepts as needed[7]. The following are recommendations about question construction that appear frequently in the literature.

- **Avoid abbreviations, jargon, and foreign phases.** Respondents may skip a question or answer a question inaccurately if they do not understand what a term or acronym means. Examples: Respondents may not know the meaning of phrases such as de facto or due diligence, or may not know that BLS stands for Basic Life Support or that PTO stands for paid time off.[3,5,8]
- **Be specific.** Examples: If you are asking if someone has ever been homeless, specify if you mean without a permanent home or completely living on the streets. If you are asking someone about their behavior "this" year, specify if you mean in the last 12 months or during the calendar year. If you are asking about healthy food, define the word "healthy."[3,4,5]
- **Avoid vague or imprecise terms.** Words like often, regularly, and occasionally mean different things to different people. How old is "older?" How many hours is considered "part-time?"[3,5]
- **Include all necessary information.** For example, if you are asking someone about their feelings on the company's paid time off policy, you should summarize the policy to make sure everyone is familiar with it.[3]
- **Avoid questions that are too precise.** For example, people will not likely know how many times they visited the library in the past year or how many hours they spent watching television in the past month. Providing ranges of possible responses is one way to help obtain the desired information.[3,7]

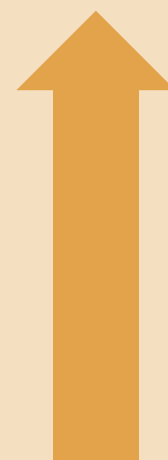# *Not All Surveys are Created Equal:* Tips for Survey Design *continued*

- **Phrase personal or potentially incriminating question in less objectionable ways.** Certain topics may be subject to social desirability bias. Use ranges for topics such as income. Offer more response option that indicate infrequency for behaviors that respondents may not want to admit as infrequent (voting) and conversely, offer more response options that indicate frequency for behaviors that respondents may not want to admit as frequent (cheating on an exam). Normalize behaviors before asking about their frequency. For example, "even safe drivers get speeding tickets sometime. How many speeding tickets have you had in the last 12 months?"[3,4,9]

- **Avoid questions that are too demanding or time-consuming.** Do not ask respondents to rank large lists of items or to write paragraphs. Avoid questions that require respondents to check into their records. For example, do not expect respondents to consult past bills to add up expenses or to obtain the exact date that they visited a restaurant.[3]

- **Avoid bias in questions.** Be careful not to imply that the respondent should be engaged in a behavior. Words with a strong positive, or particularly, negative connotation or words that incite an emotional reaction in respondents should be avoided when possible. For example, respondents may answer different is asked about "welfare" as opposed to asked about "assistance to the poor."[9]

- **Use mutually exclusive categories.** In other words, do not allow the answer choices to overlap. Example: "Think about the last present you bought for a child. How do you know the child?" The answer choices are son/daughter, nephew/niece, godchild, or friend's child. The child could be both your nephew and your godchild, so the answers are not mutually exclusive. Also, when providing ranges as answer choices, make sure the numbers do not overlap. You cannot have categories of ages 12 to 16 and ages 16 and older because the respondent would not know how to categorize someone who is age 16.[1,3,7,8]

- **Answers should include all possible responses.** If you think there are additional response options that may exist that you have not listed, you may want to add an "other" category and allow the respondent to specify their response. If you are using numeric ranges, make sure all numbers are captured within the choices. Example: If you are asking about someone's plans after high school, and provide the options of attending college, attending trade school, or having a job, you have not allowed for the respondent to indicate that he plans to have a job while also attending college or to indicate that he plans to join the military.[3,5]

- **Avoid making assumptions.** For example, asking how satisfied someone was with their flight the last time the last time they travelled assumes that the respondent has travelled by airplane. The survey could be improved by first asking if they respondent has travelled by airplane and then if yes, continuing to ask about their satisfaction with the flight. Another example: "Was the produce fresh the last time you bought it at the grocery store?" assumes the respondent buys produce at the grocery store.[3]

- **Avoid double-barreled questions.** These types of questions ask about more than one thing at a time but only allows for one answer. Respondents may feel differently about different parts of the question. Examples: "Do you like the current meeting time and location?" Respondents may like the time but not the location. "Changing the office configuration would allow for more space and increase productivity." Respondents may agree that more space would result but not that it would impact productivity.[1,5,7,8]

- **Avoid negative wording or double negatives.** Examples: "Do you agree or disagree that students should never not go to class?" "Do you agree that it's not a good idea to not cancel the subscription on time?"[1,7]

Increase Your Response Rate!

The response rate is the number of participants who completed a survey divided by the number of people who were asked to participate. A greater response rate generally indicates a more representative sample and more accurate and unbiased data. In addition to utilizing the tips for survey format, question wording, and question order reviewed throughout this report, there are some additional techniques that motivate people to complete survey[10,11].

- Personalize all mailings by using agency letterhead, handwriting addresses, signing cover letters individually, and addressing letters to the specific recipient.
- Do not use bulk mail for sending the survey.
- Provide a pre-addressed and postage-paid envelope for participants to easily return the survey.
- Contact participants multiple times. A prenotification letter or postcard indicating that the survey will be coming is helpful. A reminder postcard should be sent one week after mailing the survey. If recipients have not responded, a replacement survey along with another letter and postage-paid return envelope can be sent a few weeks later.
- If possible, offer an incentive for completing the survey.
- Print the survey on colored paper to grab the attention of the potential respondents.

Not All Surveys are Created Equal: Tips for Survey Design   *continued*

Question Order

When designing a survey, you should also consider the order of the questions. General questions should go before specific questions and behavior questions should precede questions about attitude[3,4,6]. Sensitive questions should be left for the end of the survey because rapport has been established and the respondent has answered the majority of the questions if they elect not to continue with the survey at that point[1,5,6].

You should also be aware of how responses can be impacted by other questions within the survey[5]. With each question, you set a context for other questions in the survey, and respondents may consider prior questions when interpreting and understanding the current item[4]. For example, if a survey asks "Which of these six TV shows do you watch?" and then asks how many hours of TV you watch in a week, the respondent may estimate lower if they did not watch many of the six shows listed previously or higher if they watched many of the shows listed. Assimilation effects occur when responses to two questions are more alike because of their placement within the survey, while contrast effects occurs when the order results in greater differences in responses[4,9]. Asking a more specific question prior to a general question (e.g. asking about happiness with one's career and then asking about overall happiness) leads to a contrast effect because people tend to avoid redundancy by excluding the specific question from the general rating[9]. One way to lessen the impact of order effects in a survey is to randomize the order of the questions so that different respondents are given the questions in different orders.

Tips on Ratings Scales[5]

1. use 5 to 7 points
2. provide a middle/neutral category
3. label points with clear, unambiguous words
4. avoid agree/disagree labels because it creates bias to agree
5. fully label the scales as opposed to end-labeling

Know the difference between confidential and anonymous!

Confidential means the identity of the respondent is known (or knowable), but the information is authorized to project members. Anonymous means that identity of the respondent cannot be connected back to the survey responses. If respondents receive a code or number, but the number can be linked back to their name, the information is confidential but not anonymous![4]

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