

Statistical Studies: Analyzing Data

III.B Student Activity Sheet 8: Survey Design

“School uniforms should not be required.”

Agree or disagree?



“Standardized dress can promote a productive school environment.”

Agree or disagree?

These questions show that the design of a survey can influence the results. Questions should be designed to be neutral and to allow the accurate recording of the opinions or facts given by the participants. For example, the uniform question could be worded as follows:

I am in favor of school uniforms for high school students.

Strongly agree Agree No opinion Disagree Strongly disagree

This is an example of a **closed question** because the participants are limited to the response choices that are given. Closed questions are easier (and usually cheaper) to analyze, and sometimes a computer does much of the work. **Open questions** allow the participants to give more detailed responses. This approach, however, requires a follow-up analysis that is more labor intensive (and more expensive).

1. Reword the school uniform question so that it is an open question.

Because the design of a survey is so important for capturing the information needed accurately, **pilot surveys** are often conducted. A pilot survey is used with a small number of people and then analyzed to look for the following:

- question ambiguity,
- leading questions,
- too many people choosing *Other* or *No opinion*, and
- other data collection problems.

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2. The following questions can be worded more effectively. Describe the question's problem and what effect the problem could have on the results. Then come up with more effective wording for the question. Provide a closed question and an open question.

- | | |
|--|------------|
| a. I can always talk to my parents about my problems. | True/False |
| b. Teachers and students like the new school schedule. | True/False |
| c. I like the school cafeteria. | True/False |
| d. I support school activities. | True/False |

When designing a survey (or an observation instrument), the researcher must also consider how the data will be collected. The following are some options:

- A face-to-face interviewer asks questions and records the answers of the participants (on paper or an electronic recording).
- A telephone interviewer asks questions and records the answers.
- A computer calls homes and records answers through key presses.
- A researcher observes behaviors or characteristics and marks the survey.
- A researcher hand-delivers surveys to participants, who then fill out the surveys and turn them back in.
- The survey is mailed to participants.
- The survey is e-mailed to participants.

3. Discuss the pros and cons of each method with your partner(s). Record your observations.

Always bear in mind that whatever method of data collection is used, it is vitally important that the results be accurately interpreted and reported. This includes thoroughly disclosing the methods to the reader.